

Shamed by a Parent or by Others: The Role of Attachment in Shame Memories Relation to Depression

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ABSTRACT

Recent research has shown that shame traumatic and central memories not only have an impact on feelings of shame in adulthood but also moderate the impact of shame on depression. Although the quality of attachment relationships may be important in structuring shame memories, the research on this topic has been scant. This paper explores the moderator effect of shame memories involving attachment figures vs. shame memories involving other people on the relationship between shame and depression. 230 participants from the general community population completed the Shame Experiences Interview, assessing shame experiences from childhood and adolescence, and a battery of self-report scales measuring: shame traumatic memory, centrality of shame memory, external shame, internal shame and depression. Results revealed that shame memories with attachment figures showed higher correlations with internal shame and depressive symptoms whereas shame memories involving others presented higher correlations with external shame. Moderator analyses showed that only shame traumatic memory and centrality of shame memory involving attachment figures moderated the impact of external and internal shame on depression. The current findings shed light on the importance of the quality of attachment relationships in the structuring of shame traumatic memories and on their impact on psychopathological symptoms, adding to recent neuroscience research and Gilbert's approach on shame and compassion. Our results emphasize the relevance of addressing shame memories, mainly those that involve attachment figures, particularly when working with patients suffering from depressive symptoms and/or that find compassion difficult or scary.

Key words: shame, traumatic memory, autobiographical memory, attachment, depression, moderator effect.

Novelty and Significance

What is already known about the topic?

- Shame experiences from childhood and adolescence can operate as traumatic memories, involving intrusiveness, hyperarousal and avoidance symptoms, and become central to self-identity and life story.
- These traumatic and central shame memories are associated with shame feelings in adulthood and moderate the impact of shame on depression.
- Attachment relationships are critical physiological and psychological regulators and individuals with insecure attachment styles show higher shame levels than those with secure attachment bonds.

What this paper adds?

- This study assesses the phenomenology of shame experiences involving attachment figures and involving other people from wider social interactions using a novel semi-structured interview.
- Both shame memories with others and with attachment figures have an significant effect on depression, but only shame memories with attachment figures amplify the effect of current shame feelings on depressive symptoms.
- First study to highlight the importance of the quality of attachment relationships in how shame experiences come to be structured as traumatic and central memories and impact on depression, adding to contemporary shame and attachment literature.

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Affiliative relationships are of vital importance to our survival and physical and mental well-being (Baumeister & Leary, 1995; Bowlby, 1969, 1973; Buss, 2003; Gilbert, 1989). Evolutionary theorists suggest that attachment and care-giving behavioral systems evolved because they significantly increased the chances for survival and genes propagation (Carter, 1998; Hamilton, 1964). In humans, neurophysiological and behavioural systems to protect and care for offspring have evolved to increase their chances of survival to reproductive age (Bowlby, 1969). So, through evolution, the availability and quality of affiliative relationships have become primary affect regulators for mammals and humans.

According to the 'Attachment theory' (Bowlby, 1969, 1973, 1980), attachment is the process through which the infant seeks proximity to an attachment figure so that they may receive protection, care and nurturance. A secure parent-child bond should provide protection from various threats, a safe and secure environment in which the infant can openly engage and a source of soothing when distressed. Bowlby (1969, 1973) proposed that, for normal emotional and social development to unfold, human infants need a secure relationship with their caregivers.

Therefore, attachment relationships are powerful physiological and psychological regulators (Cacioppo, Berston, Sheridan & McClintock, 2000; Carter, 1998; Panksepp, 1998). In fact, there is now strong empirical support for the significant impact that early interactions with attachment figures have on expression of genes, brain maturation, autonomic, neuroendocrine and immune function, affect regulation and development of a whole range of cognitive competencies (Cozolino, 2006; Gerhardt, 2004; Kennedy, Glaser & Kiecolt-Glaser, 1989; Mikulincer & Shaver, 2004, 2007; Schore, 1994; Siegel, 2001; Taylor, Lerner, Sage, Lehman, & Seeman, 2004; Taylor, Way, Welch, Hilmert, Lehman, & Eisenberger, 2006). Moreover, the quality of early relationships with attachment figures influences the development of internal working models of self (e.g. as worthy or unworthy of care and support) and others (e.g. as caring and available or threatening and unavailable) (Bowlby, 1969, 1973, 1980; Mikulincer & Shaver, 2005, 2007). These self-other schema are believed to operate consciously and non-consciously to guide emotional and thought processing about the self and others throughout life (Baldwin, 1992, 1997; Bowlby, 1969, 1973; Gilbert, 1989, 1993; Guidano & Liotti, 1983; Mikulincer & Shaver, 2005, 2007). Thus, interpersonal schema form the basis for subsequent self-to-self evaluations and experiences and determine one's predictions of others behaviour and one's behaviour in social interactions (Baldwin, 1992, 1997).

In addition, this need for affiliation and to form attachments is extensive to social relationships. Affiliative and supportive social relationships (e.g. with siblings, peers, friends, teachers) affect psychological and physical well-being throughout life (Baldwin, 2005; Baumeister & Leary, 1995; Bowlby, 1969, 1973; Gilbert, 1989, 2007a; Guidano & Liotti, 1983; Siegel, 2001) and provide important learning experiences that also influence the emergence of self-other schema (Baldwin, 1992, 1997; Beck, 1987; Gilbert, 1989, 1993).

So, feeling cared for, supported and valued by others significantly influences physiological and emotional regulation and promotes feelings of safeness and soothing (Cacioppo, *et al.*, 2000; Gilbert, 1989, 2009a). In contrast, feeling rejected, uncared and unvalued is one of the most power elicitors of stress responses (Eisenberger, 2011;

Dickerson & Kemmeny, 2004) and is related to physical and mental health problems (Cacioppo & Hawkley, 2009; Caporael, 2001; Cozolino, 2006; Gilbert, 1989, 2005a; MacDonald & Leary, 2005; Miller, 2011; Teicher, Samson, Polcari, & McGreenery, 2006).

Underlying capacities for emotional regulation and social relating are a set of evolved central and peripheral physiological systems and their associated neuro-hormones, which correspond to three major affect regulation systems. These interacting systems have been outlined as threat-protection; resource-seeking; contentment-affiliation and soothing (Depue & Moronne-Strupinsky, 2005; Gilbert, 2005b, 2007a, 2009a, 2010; Wang, 2005).

The *threat system*, common to all animals, is focused on detection of threats and the rapid activation of defensive emotions (e.g. anxiety, anger, disgust) and behaviours (e.g. fight, flight, submit, and freeze). This system operates through specific brain structures, as the amygdala and the HPA axis, and can be stimulated by several threat signalling stimuli, such as social cues or emotional memories (Gilbert, 2009a; 2010; LeDoux, 1998). The *drive-resource acquisition system* is responsible to give us positive feelings (e.g. of activation, pleasure and excitement) that guide and motivate us to seek out and secure resources (e.g. mates, food) that increase our chances of survival and prosperity (Depue & Moronne-Strupinsky, 2005). A third affect regulation system is the *contentment-affiliative and soothing system*. Contrary to the drive system, this system involves non-seeking or quiescence and is characterized by positive affects of warmth, soothing and well-being and is linked to endorphins/opiates and oxytocin (Depue & Moronne-Strupinsky, 2005; Gilbert, 2009a; 2010; MacDonald & MacDonald, 2010). When animals are not under threat and not pursuing or seeking resources they are satisfied or in a state of contentment (Depue & Moronne-Strupinsky, 2005). This affect regulation system is thought to have evolved alongside the attachment system, being stimulated by signals of care and compassion from others. So, attachment and affiliative relationships can foster feelings of safeness, connectedness and warmth and reduce distress in response to threats (Gilbert, McEwan, Mitra, Franks, Richter, & Rockliff, 2008).

Therefore, being loved, accepted, valued, and chosen by others (e.g. caregivers, friends, allies, peers, lovers, one's superiors) for important social roles (e.g. friend, lover, team member) makes one's world safer, promotes feelings of safeness and connectedness, provides the deactivation of the threat system and offers essential resources for coping with adversity (Caccioppo, *et al.*, 2000; Masten, 2001; Porges, 2003, 2007). On the contrary, adverse experiences in childhood (e.g. abuse, neglect, abandonment, rejection, shaming, criticism and/or harsh parenting styles) are associated with the activation of the threat system (Dickerson & Kemeny, 2004; Perry, Pollard, Blakley, Baker & Vigilante, 1995; Taylor, 2010), under stimulation/blocking of the affiliative-soothing system (Irons, Gilbert, Baldwin, Baccus, & Palmer, 2006) and increased vulnerabilities to mental health problems, namely depression (Andrews, 2002; Gilbert, Cheung, Wright, Campey, & Irons, 2003; Gilbert & Gerlsma, 1999; Parker, 1983; Perris, 1994; Perris & Gilbert, 2000; Stuewig & McCloskey, 2005; Taylor *et al.*, 2006; Teicher, 2002; Webb, Heisler, Call, Chickering, & Colburn, 2007).

Given the power of social relationships in shaping our mind and brain, humans are highly motivated to create positive images and positive affect in the minds of others, to be seen as an attractive social agent (Gilbert, 1998, 2007b; Keltner & Harker, 1998).

So, a set cognitive competencies for processing social information (e.g. theory of mind, mentalizing, empathy; Byrne, 1995; Liotti & Gilbert, 2011) and for self-conscious awareness (Tracy & Robins, 2004) have evolved to evaluate the quality of our relationships and monitor our attractiveness for others, that is, how we exist in the minds of others and make predictions of what they feel and think about us (Gilbert, 2003, 2007b).

The emergence of shame is related to the dynamics of social attractiveness competition. The biopsychosocial approach posits that shame arises from these complex cognitive abilities as a warning signal that we exist negatively in the mind of the others (i.e. as unattractive, worthless, flawed) and, thus, at risk of rejection, exclusion, being ignored or even harmed or persecuted (Gilbert, 1998, 2002, 2007b). Shame can then be seen as a response to the social threat of being unattractive, alerting individuals to disruptions with their social rank and social relationships, and activating defensive responses (e.g. flight, submit, appease) to repair damage to social rank and relationships (Fessler, 2004; Gilbert, 1998, 2007b). This self-conscious emotion has also been defined as the experience of the self as unattractive, undesirable, worthless, inferior or defective in some way, linked to having flaws, failures and deficits exposed (Kaufman, 1989; Lewis, 1992; Gilbert, 1998, 2002; Tangney, & Dearing, 2002; Tangney, & Fisher, 1995). Hence, shame is an emotion crucial to one's social existence and self-identity (Gilbert, 2007b; Lewis, 1992; Tangney & Dearing, 2002; Tracy & Robins, 2004).

In light of the biopsychosocial model (Gilbert, 1998, 2002, 2007b), two types of shame can be distinguished: external and internal. *External shame* is related to how one experiences oneself as living in the minds others (e.g. as inferior, inadequate, worthless, bad). In external shame, the world is experienced as unsafe (e.g. others will be harsh and rejecting rather than supportive and forgiving) and people engage in defensive maneuvers, with the behavior orientated towards trying to positively influence one's image in the mind of other (e.g. by submitting, appeasing or displaying desirable qualities). On the other hand, the internalization of these experiences can result in seeing and evaluating the self in the same way others have, that it is flawed, inferior, rejectable and globally self-condemning (Gilbert, 1998, 2002; Mikulincer & Shaver, 2005). *Internal shame* is then linked to complex memory systems (e.g. previous shaming episodes; Kaufman, 1989; Matos & Pinto-Gouveia, 2010; Matos, Pinto-Gouveia, & Gilbert, 2013) and to negative self-evaluations and feelings (Tracy & Robins, 2004), which are partly related to ones *imaginary audiences* created through experiences with others (Balwin, 1997). Shame, both externally and internally focused, has been associated with increased vulnerabilities to psychopathology, namely depressive symptoms (Andrews, Qian, & Valentine, 2002; Cheung, Gilbert, & Irons, 2004; Matos & Pinto-Gouveia, 2010; Matos, Pinto-Gouveia, & Duarte, 2012a, 2012b; see Kim, Thibodeau, & Jorgensen, 2011, for supporting meta-analysis).

Shame experiences can occur early on in our interactions with significant others (e.g. caregivers, siblings, peers) and continue throughout our lives. These emotional experiences, where a child experiences the emotions of others being directed at himself, entail a primary threat to the (social) self and seem to function as threat-activating memories that operate like emotional hot-spots in the mind (Kaufman, 1989; Gilbert, 2003). Shame events may then be recorded in autobiographical memory as conditioned

emotional memories that operate as traumatic memories, involving intrusiveness, hyperarousal, and efforts to avoid shame (Matos & Pinto-Gouveia, 2010). When triggered, they can affect body memory and the 'felt sense of self' (Brewin, 2006), and guide attention, emotional and cognitive processing, determining the activation of defensive strategies/behaviors (e.g. fight, flight, submission) (Gilbert, 2007b; Matos, Pinto-Gouveia, & Costa, 2013; Pinto-Gouveia, Matos, Castilho, & Xavier, 2014).

Furthermore, these threat memories can texture the whole sense of self and become central to ones' self-identity and life story (Pinto-Gouveia & Matos, 2011) and have a major impact on who and how we engage socially (Gilbert, 2007b). Therefore, shame memories, that are construed as traumatic and central autobiographical memories, can operate as self-defining memories in the self-memory system (Conway, 2005; Conway & Pleydell-Pearce, 2000; Matos, Pinto-Gouveia, & Gilbert, 2013; Singer & Salovey, 1993) in that they give meaning and continuity to one's sense of self and life story (McAdams, 2001; McAdams, Josselson, & Lieblich, 2006) and influence behaviour and goals (Sutin & Robins, 2008). In addition, a central trauma memory can form a highly available reference point for the organization of autobiographical knowledge, influencing subsequent attentional, emotional and cognitive processing (Berntsen & Rubin, 2006, 2007).

Moreover, previous experiences of relationships can be coded in our minds as interpersonal memories (Brewin, 2006), acting as a lens that guides moment-to-moment processing of emotion and interactions. So, shame memories may influence the formation of negative internal working models of self (e.g. as being defective, inferior, and so on, and negatively evaluated by others) and others (e.g. as critical, threatening, hostile that may criticize, reject, exclude or harm the self) that affect emotional and social responses to negative self-defining events (Baldwin & Dandeneau, 2005; Mikulincer & Shaver, 2005; Matos, Pinto-Gouveia, & Gilbert, 2013; Matos, Pinto-Gouveia, & Costa, 2013). Thus, they may integrate interpersonal schemas that guide expectations of how others will view and respond to the self (Baldwin, 1997; Baldwin & Holmes, 1987).

In addition, recent research has found that shame memories from childhood and adolescence, which operate as traumatic memories and become central to personal identity and life story, were associated with shame feelings in adulthood and moderated the impact of shame on depression (Matos & Pinto-Gouveia, 2010; Matos & Pinto-Gouveia, 2011; Pinto-Gouveia & Matos, 2011). Besides, Matos, Pinto-Gouveia, & Gilbert (2013) reported that shame memories were significantly related to with paranoid symptoms, but not social anxiety, when current shame feelings were controlled for.

These theoretical and empirical considerations raise the question of whether all shame memories share the same effect on psychopathology or whether there are certain types of shame experiences that have a particular impact on psychopathological symptoms, namely depression. A possible difference in the phenomenology of shame experiences may be related to who the *shamer* was- to who shamed the self in a particular event. So, the key question is: Do shame experiences that involve attachment figures differ from those that involve friends, peers, teachers or strangers in their relationship to psychopathology?

Actually, one of the first shame theorists, Lewis (1971), suggested that shame is rooted in the need for attachment to others and considered a rejection by a love one to be a prototypic shame-inducing experience, since it is often construed as a global and uncontrollable rejection of the self. In addition, according to the attachment theory (Bowlby, 1969, 1973, 1980; Mikulincer & Shaver, 2005, 2007), shame events that occurred within attachment interactions (e.g. with mother, father, other caregiver), by leading to negative representations of self and others, may influence dysphoric affect later in life. Bowlby (1980) further proposed that powerful emotions, such as shame, are products of negative attachment relationships characterized by threat or loss. Also, shame theorists such as Kaufman (1985, 1989), Nathanson, (1987b, 1992) and Schore (1994, 1996, 1998) have argued that shame is an interpersonal or attachment emotion that emerges when there are disruptions or misattunements in the parent-child relational bond.

The few studies that have explored this connection between shame and attachment found that insecurely attached individuals and those with fearful and preoccupied attachment styles and attachment anxiety or avoidance reported higher shame levels, while secure attachment was found to be negatively associated with shame (Gross, & Hansen, 2000; Lopez, Gover, Leskela, Sauer, Schirmer, & Wyssmann, 1997; Wells, 1996; Wei, Shaffer, Young, & Zakalik, 2005). So, one would expect that shame memories involving attachment figures would differ from those involving others in their association with psychological difficulties.

In addition, previous studies on shame memories from childhood and adolescence (Matos & Pinto-Gouveia, 2010; Matos, Pinto-Gouveia, & Gilbert, 2013) did not evaluate the type of shame experience recalled by participants and used self-report measures to elicit and assess shame memories.

Therefore, the present study comprised three main aims. The first was to explore the phenomenology of shame memories from childhood and adolescence, particularly the type of shame experience, using a semi-structured interview. Furthermore, we aimed at investigating the linkage between shame memories involving attachment figures and involving others and current shame feelings (external and internal shame) and depressive symptoms. We hypothesized that shame memories involving attachment figures would be particularly associated with internal shame and depressive symptoms whereas shame memories with other would be more related to external shame. Finally, in an attempt to extend previous findings (Matos & Pinto-Gouveia, 2010, 2011) we tested the moderator effect of shame memories involving attachment figures and of shame memories involving others on the relationship between shame (external and internal) and depressive symptoms.

METHOD

Participants

A total of 230 subjects from the general community population (69 males) participated in this study. Participants were aged 18-62 ($M= 34.23$, $SD= 10.46$). Forty nine per cent of the subjects were single ($n= 112$) and 37.4% were married ($n= 86$). Sixty two per cent had middle class professions (e.g., academics, teachers, social workers,

engineers, managers, nurses, middle-level administrators) ($n=143$). The participants' years of education mean was 14.13 ($SD=3.82$). These participants were recruited as part of a larger study examining the phenomenological characteristics of shame memories and their relation to psychopathology.

Instruments

Shame Experiences Interview (SEI, Matos & Pinto-Gouveia, 2006). The SEI is a semi-structured interview designed to assess the phenomenology of a shame experience from childhood or adolescence. It measures emotional, cognitive, behavioral, motivational and contextual components of shame and its autobiographical/traumatic memory characteristics. The interview begins with an introduction that explains its purpose and then explains the concept of shame and gives three examples of shame experiences from childhood and adolescence. It is divided into three main parts. In the first part a significant shame memory from childhood or adolescence that involved peers, teachers, strangers, or other people, is elicited and assessed regarding its phenomenological and memory characteristics. In the second part participants are asked to recall a significant shame memory from childhood or adolescence involving an attachment figure (father, mother or other caregiver), and its phenomenological and memory characteristics are evaluated. The third measures the accessibility to positive and negative memories with attachment figures from childhood and adolescence. After each part, participants are asked to fill a set of self-report questionnaires considering the shame memory elicited, measuring shame traumatic memory characteristics, centrality of shame memory and autobiographical memory characteristics. For the purpose of this study, we will only consider the scores from the self-report measures described below applied to the shame memory with peers, teachers, strangers or other people and to the shame memory with attachment figures.

Impact of Event Scale-Revised (IES-R): Developed by Weiss & Marmar (1997). The IES-R is a self-report instrument designed to measure current subjective distress for any specific life event, and distinctively in our study, in relation to the shame memory involving peers, teachers, strangers or others (IES-R_Others) and to the shame memory with attachment figures (IES-R_AttachmFig). This scale has 22 items, 7 items having been added to the original 15-item IES (Weiss & Marmar, 1997), rated on a 5-point Likert scale (0-4). The IES-R is composed by three subscales that measure the three main characteristics of traumatic memories: avoidance (e.g., "I stayed away from reminders of it"), intrusion (e.g., "Any reminder brought back feelings about it") and hyperarousal (e.g., "I was jumpy and easily startled") that parallel the DSM-IV criteria for PTSD. In the original study, Cronbach alphas of the subscales ranged from .87 to .92 for intrusion, .84 to .86 for avoidance and .79 to .90 for hyperarousal (Weiss & Marmar, 1997). The Portuguese version revealed a one-dimensional structure with sound psychometric properties (IES-R Total Cronbach's $\alpha=.96$) (Matos, Pinto-Gouveia, & Martins, 2011). Cronbach's alphas of the IES-R for both shame memories are shown in Table 1.

Centrality of Event Scale (CES; Berntsen & Rubin, 2006; Portuguese version by Matos, Pinto-Gouveia, & Gomes, 2010) assesses the extent to which a memory for a stressful event forms a reference point for personal identity and to attribution of meaning to other experiences in a person's life. This self-report questionnaire consists of 20 items, rated on 5-point Likert scale (1-5), that measure the three interdependent characteristics of highly negative emotional memories: reference points for everyday

inferences (“This event has coloured the way I think and feel about other experience.”), turning points in life stories (“I feel that this event has become a central part of my life story”) and components of personal identity (“I feel that this event has become part of my identity”). In this study, participants completed the CES in relation to the shame memory involving peers, teachers, strangers or others (CES_Others) and to the shame memory with attachment figures (CES_AttachmFig). In its original study, CES reported a high internal consistency (Cronbach $\alpha = .94$). One-dimensional structure with good psychometric properties was found in the Portuguese version (CES_Total Cronbach’s $\alpha = .96$) (Matos, Pinto-Gouveia, & Gomes, 2010). The alphas for this study are reported in Table 1.

Other As Shamer Scale (OAS): Developed by Allan, Gilbert, and Goss (1994) and Goss, Gilbert, and Allan (1994) (Portuguese version by Matos *et al.*, 2012a). This 18 item scale measures external shame (global judgements of how people think others view them). For example, respondents rate on a 5-point Likert scale (0-4) the frequency of their feelings and experiences in items such as “I feel other people see me as not quite good enough” and “I think that other people look down on me”. Higher scores on this scale reveal high external shame. A Cronbach alpha of .92 was reported in the original study of this scale Goss *et al.* (1994). The Portuguese version also showed high internal consistency (Cronbach’s $\alpha = .91$) (Matos *et al.*, 2012a). The Cronbach’s alpha for this scale is given in Table 1.

Internalized Shame Scale (ISS) was developed by Cook (1994, 2001; Portuguese version by Matos *et al.*, 2012b) and contains a 24-item measure consisting of negatively worded items (e.g., “compared with other people, I feel like I somehow never measure up”) assessing the frequency with which people experience feelings of shame and a 6-item scale consisting of positively worded items (e.g., “all in all, I am inclined to feel that I am a success”) assessing self-esteem. All of the items are rated on a scale of “0,” meaning “never,” to “4,” meaning “almost always.” The shame subscale items were based on phenomenological descriptions of shame feelings, whereas the self-esteem subscale items were taken from the Rosenberg Self-Esteem Scale (Rosenberg, 1965). In this study, only the shame subscale was used as a measure of internal shame. Previous studies (Cook, 1994, 2001; del Rosario & White 2006) report high internal consistency for the shame subscale, with alpha coefficients ranging from .95 to .97 for non-clinical populations. The Portuguese version also revealed high internal consistency for the shame subscale (Cronbach’s $\alpha = .95$) (Matos *et al.*, 2012b). The alpha for this study is shown in Table 1.

Depression, Anxiety and Stress Scale (DASS-42); Lovibond & Lovibond, 1995; Portuguese version by Pais-Ribeiro, Honrado & Leal, 2004): is a self-report measure composed of 42 items and designed to assess three dimensions of psychopathological symptoms: depression (e.g. “I couldn’t seem to experience any positive feelings at all”), anxiety (e.g. “I was aware of dryness of my mouth”) and stress (e.g. “I found it hard to wind down”). The items indicate negative emotional symptoms and subjects are required to rate how much each statement applied to them over the past week, on a four-point scale (from 0= Did not apply to me at all, to 3= Applied to me very much, or most of the time). On the original version, Lovibond and Lovibond (1995) found the subscales to have high internal consistency (Depression subscale Cronbach’s $\alpha = .91$; Anxiety subscale Cronbach’s $\alpha = .84$; Stress subscale Cronbach’s $\alpha = .90$). In the current study only the Depression subscale was used to assess depressive symptomatology. The Cronbach’s alpha for this subscale is presented in Table 1.

Procedure

A convenience sample was collected from the general population, recruited within the staff of institutions (schools and private corporations) in the districts of Coimbra, Leiria, Braga and Porto, in Portugal. These institution's boards were contacted, the research aims were clarified and authorization was obtained so that their employees could participate in the study. Afterwards, the personnel was elucidated about the investigation goals and invited to voluntarily participate. In line with ethical requirements, it was emphasized that participants co-operation was voluntary and that their answers were confidential and only used for the purpose of the study.

Those who volunteer to participate were given the battery of self-report questionnaires designed to measure external shame, internal shame, and psychopathology. The questionnaires were administered by the author, MM, with assistance of undergraduate students. Then, the self-report questionnaires were filled by volunteers in the presence of the researcher.

Afterwards, a session was scheduled with each participant within the following week, in order to administer the Shame Experiences Interview (SEI; Matos & Pinto-Gouveia, 2006). The SEI assessed specific shame experiences from childhood and adolescence, particularly a shame memory involving an attachment figure (father, mother or other career) and a shame memory that involved peers, colleagues, professors, strangers. The SEI took approximately 90 minutes to complete. Seventeen participants didn't recall a shame memory with attachment figures.

RESULTS

The phenomenology of shame memories with others and with attachment figures from childhood and adolescence was assessed concerning the *shamer*, type of shame situation and age when the situation occurred.

Regarding shame memories involving others, 47.8% ($n=110$) of the subjects identified themselves as the shamers (i.e. for being responsible of having a negative or devaluing personal attribute, characteristic or behaviour exposed in front of others), 14.8% ($n= 34$) remembered situations where they were shamed by peers and 12.2% ($n= 28$) by friends. The remaining participants reported shame episodes where they were shamed by other people (e.g., teacher, friend's parent) ($n= 20$, 8.7%), family members (e.g., siblings, cousins) ($n= 15$, 6.5%), strangers ($n= 8$, 3.5%), or by several of these (e.g., teacher and peers) ($n= 15$, 6.5%). When asked to describe the situation that elicited shame, 37.4% ($n= 86$) of the participants reported situations where they felt shame due to having had a depreciative behavior, personal attribute or characteristic of the self exposed in front of others, 24.3% ($n= 56$) recalled situations where an aspect related to their weight, body or physical appearance was negatively commented on or criticized by others, 16.1% ($n= 37$) described a situation where they were criticized by someone important to them. In addition, 5.7% ($n= 13$) felt shame related to their personal habits (such as hygiene or clothing), 5.2% ($n= 12$) were ashamed when they were negatively compared to significant others, 4.8% ($n= 10$) recalled situations where they were physically

abused and 1 participant described a sexual abuse situation. Participants were in average 10.55 years old ($SD= 3.97$) when the shame situation occurred.

Concerning the phenomenology of shame memories with attachment figures, 41.3% ($n= 88$) of subjects identified their mother and 39.9% ($n= 85$) their father as being the shamers in the shame memory. For 10.3% ($n= 22$) of the subjects both parents were shamers and for 8.5% ($n= 18$) the shamer was other significant caregiver during childhood or adolescence (e.g. grandparent, aunt, uncle). In relation to the type of shame situation 31.5% ($n= 67$) recalled experiences where they were criticized or put down by the attachment figure, 23% ($n= 49$) described reflected shame situations (e.g. situations where shame emerged due to behavior or attributes of the attachment figure), 10.8% ($n= 23$) remembered a situation where they displayed a depreciative behavior or characteristic in front of the attachment figures, 9.4% ($n= 20$) identified experiences where they were physically abused by the attachment figure and 8.9% ($n= 19$) recalled situations where the attachment figure commented on or criticized an aspect related to their weight, body or physical appearance. From the remaining participants, 15 (7%) described situations where they were negatively compared to others by the attachment figure, 12 (5.6%) situations where they were sexually abused and 8 (3.8%) felt shame due to their family social status. In average participants were 11.50 years old ($SD= 4.41$) when the shame situation occurred.

The means, standard deviations and Cronbach' alphas of the self-report variables studied are presented in Table 1. All scales showed high internal consistency. The means and standard deviations for these variables are similar to those obtained in previous studies (del Rosario & White 2006; Goss *et al.*, 1994; Matos & Pinto-Gouveia, 2010; Pinto-Gouveia & Matos, 2011). No significant gender differences were found.

Pearson product moment correlations were conducted to explore the relationships between shame traumatic memory with others and with attachment figures, centrality of shame memory with others and with attachment figures, external shame, internal shame and depression (Table 1). Both shame traumatic memory and centrality of shame memory with others and shame traumatic memory and centrality of shame memory with attachment figures were significantly correlated with current external and internal shame and depression. However, shame traumatic memory with others showed slightly higher correlations with external shame ($r= .34$; $p <.010$) than shame traumatic memory with

Table 1. Means, Standard Deviations, Cronbach' alphas (α) and Intercorrelation scores on self-report measures ($N= 230$).

Measure	<i>M</i>	<i>SD</i>	α	1	2	3	4	5	6	7
1. IES-R_Others	4.08	2.48	.95	-						
2. CES_Others	52.07	18.24	.96	.57	-					
3. IES-R_AttachFig	3.65	2.55	.96	.58	.35	-				
4. CES_AttachFig	49.25	19.17	.97	.57	.40	.65	-			
5. OAS	20.39	10.52	.93	.34	.43	.29	.33	-		
6. ISS	33.77	15.54	.94	.38	.28	.40	.31	.65	-	
7. Depression	7.04	7.89	.95	.28	.23	.36	.27	.48	.61	-

Notes: All coefficients are significant at $p <.001$. IES-R_Others= Shame traumatic memory_Others; CES_Others= Centrality of shame memories_Others; CES_AttachFig= Centrality of shame memories_AttachFig; IES-R_AttachFig= Shame traumatic memory_AttachFig; OAS= External shame; ISS= Internal shame; Depression= DASS-42 depression subscale.

attachment figures ($r = .29$; $p < .010$). Conversely, the correlations of shame traumatic memory with attachment figures were generally higher in relation to internal shame ($r = .40$; $p < .010$) and depressive symptoms ($r = .36$; $p < .010$) than those of shame traumatic memory with others (respectively: $r = .38$; $p < .010$; $r = .28$; $p < .010$). A similar pattern emerged regarding centrality of shame memory, with centrality of shame memory with others presenting higher correlations with external shame ($r = .43$; $p < .010$) than those of centrality of shame memory with attachment figures ($r = .33$; $p < .010$). Moreover, centrality of shame memory with attachment figures showed higher correlations with internal shame ($r = .31$; $p < .010$) and depressive symptoms ($r = .27$; $p < .010$) than those of centrality of shame memory with others (respectively: $r = .28$; $p < .010$; $r = .23$; $p < .010$).

As found in previous studies (Cheung, et al., 2004; Gilbert, 2000; Matos & Pinto-Gouveia, 2010, 2011) external shame and internal shame were significantly correlated with depression ($r = .48$; $p < .010$; $r = .61$; $p < .010$, respectively).

Therefore these results suggest that shame memories with others and with attachment figures might be differentially associated with shame and psychopathology, with shame memories involving others being more related to external shame and shame memories involving attachment figures being more linked to internal shame and depression. In addition, given previous findings (Matos & Pinto-Gouveia, 2010, 2011) on the moderator effect of shame traumatic memory and of centrality of shame memories on the relationship between shame and depression, we intended to explore whether shame memories with others and with attachment figures had a different moderator impact on the relationship between shame and depression.

In order to analyze the moderation effect of shame traumatic memory with others on the relation between external shame and depression, we conducted a multiple hierarchical regression analysis considering the interaction of a continuous predictor (Cohen, Cohen, West, & Aiken, 2003). In this procedure, in an attempt to reduce the error associated with multicollinearity, we have used a standardized procedure, centering the values of the two predictors (external shame and centrality of shame memory) and then obtained the interaction product by multiplying two created variables (Aiken & West, 1991).

On step one, we entered external shame as a predictor and on step two we further included shame traumatic memory with others as a predictor variable. In both steps the predictors entered produced statistically significant models [Step 1: $R^2 = .23$ ($F(1, 228) = 66.55$; $p < .001$; Step 2: $R^2 = .24$ ($F(1, 227) = 5.17$; $p < .050$]. The third step, where the interaction terms were entered, was not statistically significant [$R^2 = .25$ ($F(1, 226) = 2.46$; $p = .118$]. Thus, there was no significant interaction of shame traumatic memory with others and external shame on predicting depression.

Then, we replicated the same procedure to explore whether the relation between internal shame and depression was moderated by shame traumatic memory with others. Only step one, where internal shame was entered as a predictor produced a significant model [Step 1: $R^2 = .37$, $F(1, 228) = 131.99$; $p < .001$; Step 2: $R^2 = .37$, $F(1, 227) = 1.33$; $p = .249$; Step 3: $R^2 = .37$, $F(1, 226) = .232$; $p = .631$]. So, no moderator effect of shame traumatic memory with others was found.

In order to investigate whether centrality of shame memory with others moderates the impact of external shame on depression, the same procedure described above was

conducted. Only step one, where external shame was entered as a predictor, produced a significant model [$R^2 = .23$, $F(1, 228) = 66.55$; $p < .001$]. Step two and three of the regression model were not significant [Step 2: $R^2 = .23$, $F(1, 227) = .21$; $p = .647$; Step 3: $R^2 = .23$, $F(1, 226) = 1.43$; $p = .233$]. Hence, there was no significant interaction of centrality of shame memory with others and external shame on predicting depression.

The same pattern was found when the same procedure was replicated to explore the moderator effect of centrality of shame memory with others on the relation between internal shame and depression. Internal shame emerged as the only significant predictor of depression [Step 1: $R^2 = .37$, $F(1, 228) = 131.99$; $p < .001$; Step 2: $R^2 = .37$, $F(1, 227) = 1.44$; $p = .231$; Step 3: $R^2 = .37$, $F(1, 226) = 1.34$; $p = .249$]. So, no significant interaction of centrality of shame memory with others and internal shame on predicting depression was found.

In order to explore the moderator effect of shame traumatic memory with attachment figures on the relation between external shame and depression, we replicated the same procedures illustrated above to perform moderation analyses.

The three steps of the model are statistically significant (Table 2). On step one, we entered external shame as a predictor and on step two we further included shame traumatic memory with attachment figures as a predictor variable. In both steps the predictors entered produced statistically significant models. The third step, where the interaction terms were entered, presents a R^2 of .31 [$F(1, 209) = 6.35$; $p = .012$]. Thus, there was a significant interaction of shame traumatic memory with attachment figures and external shame on predicting depression.

From the regression coefficients analysis (Table 2) we can see that both external shame and shame traumatic memory with attachment figures are statistically significant predictors, in all steps of model. The interaction between these two variables points out to the existence of a moderator effect of shame traumatic memory with attachment figures on the relation between external shame and depression [$\beta = .15$; $t(1,209) = 2.52$; $p < .050$].

With the purpose of better understanding the relation between external shame and depression with different levels of shame traumatic memory with attachment figures, we

Table 2. Hierarchical multiple regression using external shame (OAS) to predict DASS depression having shame traumatic memory with attachment figures (IES-R_AttachFig) as moderator.

Predictor	Depression	
	ΔR^2	B
Step 1	.23***	
OAS		.48***
Step 2	.05***	
OAS		.41***
IES-R_AttachFig		.24***
Step 3	.02*	
OAS		.41***
IES-R_AttachFig		.28***
OASxIES-R_AttachFig		.15*
Total R^2	.31***	

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$

plotted a graphic (Figure 1) considering one curve for each the three shame traumatic memory with attachment figures (IES-R_AttachFig) levels (low, medium and high). This procedure is recommended to highlight this relation and can be done with centered and uncentered variables (Aiken & West, 1991; Cohen *et al.*, 2003). To proceed with this representation, and since we didn't had theoretical cut points, we plotted the three curves taking into account the following cut-point values of IES-R_AttachFig variable on the x axis: one standard deviation below the mean, the mean and one standard deviation above the mean as recommended by Cohen and colleagues (2003).

We can observe that individuals with high levels of shame traumatic memory with attachment figures show a positive and high relation with depression comparing to those who have medium and low values. In these two cases the relation is less expressive, being noteworthy that individuals who have low levels of shame traumatic memory with attachment figures and high levels of external shame only show a small to moderate relation with depression (Figure 1).

Then, we replicated the same procedure to explore the relation between internal shame and depression moderated by shame traumatic memory with attachment figures (Table 3). Internal shame was entered on step one as a predictor and shame traumatic memory was further added as a predictor variable in step two. Both steps produced statistically significant models. The interaction terms were entered on the third step and the model was significant [$R^2 = .43$; $F(1, 209) = 4.25$; $p = .046$]. Hence, there was a significant interaction of shame traumatic memory with attachment figures and internal shame on depression prediction.

The regression coefficients results (Table 3) reveal that internal shame and shame traumatic memory with attachment figures are independent predictors of depression in the first two steps of the model. The interaction between these two variables suggests

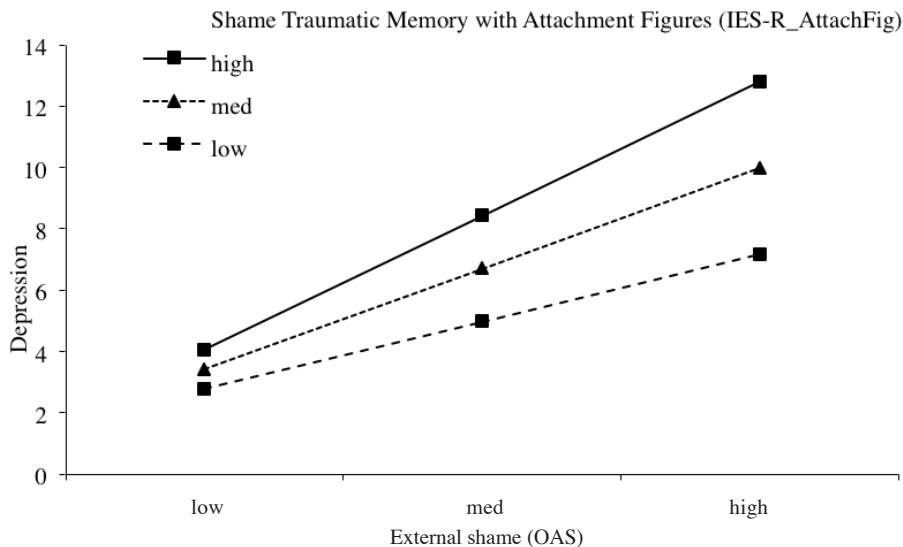


Figure 1. Graphic for the relation between External Shame (OAS) and Depression with different levels of shame traumatic memory with attachment figures (IES-R_AttachFig)

Table 3. Hierarchical multiple regression using internal shame (ISS) to predict DASS depression having shame traumatic memory with attachment figures (IES-R_AttachFig) as moderator.

Predictor	Depression	
	ΔR^2	B
Step 1	.40***	
ISS		.64***
Step 2	.02*	
ISS		.59***
IES-R_AttachFig		.14*
Step 3	.01*	
ISS		.58***
IES-R_AttachFig		.09
ISSxIES-R_AttachFig		.11*
Total R^2	.43***	

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$

the existence of a moderator effect of shame traumatic memory with attachment figures on the relation between internal shame and depression [$\beta = .11$; $t(1,209) = 2.11$; $p < .050$].

To enhance the understanding of the relation between internal shame and depression with different levels of shame traumatic memory with attachment figures, we plotted a graphic (Figure 2) following the same procedure described above. We can also see that individuals with high levels of shame traumatic memory with attachment figures reveal a high and positive relation with depression when compared to those who have medium and low values, who show a less expressive association. Notable is that individuals who have low levels of shame traumatic memory with attachment figures and high levels of internal shame only show a small relation with depression (Figure 2).

In summary, in both moderator analyses, when the interaction term was entered on the regression model it produced a significant increase in R^2 and also revealed an expressive and significant effect upon depression.

Analysis of the interaction terms implies that subjects who had more shame traumatic memory with attachment figures and scored higher on external and internal shame were found to be more depressed than those who had less shame traumatic memory: that is, for subjects with the same shame scores, those whose shame functions as a traumatic memory, with intrusion, avoidance and hyperarousal symptoms would tend to present more depressive symptoms. Therefore, an interaction effect between shame traumatic memory and shame (external and internal) was corroborated suggesting that shame traumatic memory with attachment figures moderates the effect of shame on depression.

In order to investigate whether centrality of shame memory with attachment figures moderates the impact of external shame on depression, the same procedures described above was conducted.

The three steps of the model are statistically significant (Table 4). On step one, we entered external shame as a predictor and on step two we further included centrality of shame memory with attachment figures as a predictor variable. The third step, where the interaction terms were entered, presents a R^2 of .29 [$F(1, 209) = 11.025$; $p = .001$]. Thus, there was a significant interaction of centrality of shame memory with attachment figures and external shame on predicting depression.

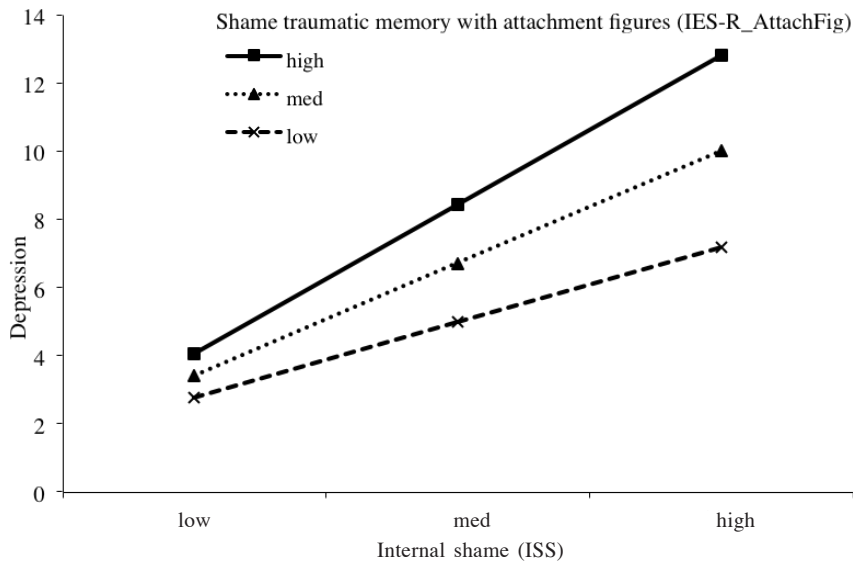


Figure 2. Graphic for the relation between Internal Shame (ISS) and Depression with different levels of shame traumatic memory with attachment figures (IES-R_AttachFig).

From the regression coefficients analysis (Table 4) we can see that the interaction between these two variables points out to the existence of a moderator effect of centrality of shame memory with attachment figures on the relation between external shame and depression [$\beta = .20$; $t(1,209) = 3.32$; $p < .001$].

With the purpose of better understanding the relation between external shame and depression with different levels of centrality of shame memory with attachment figures, we plotted a graphic (Figure 3) considering one curve for each the three shame centrality of shame memory with attachment figures (CES_AttachFig) levels (low, medium and high). We plotted the three curves considering the following cut-point values of CES_AttachFig variable on the x axis: one standard deviation below the mean, the mean and one standard deviation above the mean.

Table 4. Hierarchical multiple regression using external shame (OAS) to predict DASS depression having centrality of shame memory with attachment figures (CES_AttachFig) as moderator.

Predictor	Depression	
	ΔR^2	B
Step 1	.23***	
OAS		.48***
Step 2	.01*	
OAS		.44***
CES_AttachFig		.13*
Step 3	.04*	
OAS		.42***
CES_AttachFig		.12
OASxCES_AttachFig		.20***
Total R^2	.29***	

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$

We can observe that individuals with high levels of centrality of shame memory with attachment figures show a positive and high relation with depression comparing to those who have medium and low values. Of note is also the fact that individuals who have medium and low levels of centrality of shame memory with attachment figures and high levels of external shame only show a small to moderate relation with depression. In addition, when the levels of external shame are low, centrality of shame memories has an opposite but less expressive effect on depression (Figure 3).

Then, we replicated the same procedure to explore the relation between internal shame and depression moderated by centrality of shame memory with attachment figures (Table 5). Internal shame was entered on step one as a predictor variable and in step two centrality of shame memory was added as a predictor. The first step produced a statistically significant model. The interaction terms were entered on the third step and the model was significant [$R^2=.43$; $F(1, 209)= 6.88$; $p= .009$]. Hence, there was a significant interaction of centrality of shame memory with attachment figures and internal shame on depression prediction.

Results from regression coefficients analysis (Table 5) reveal that when the interaction of the two variables is entered on the third step it emerges as a significant predictor of depression. This suggests the existence of a moderator effect of centrality of shame memory with attachment figures on the relation between internal shame and depression.

A graphic was plotted to better illustrate relation between internal shame and depression with different levels of centrality of shame memory with attachment figures (Figure 4), following the same procedure described above.

We can examine that individuals with high levels of centrality of shame memory

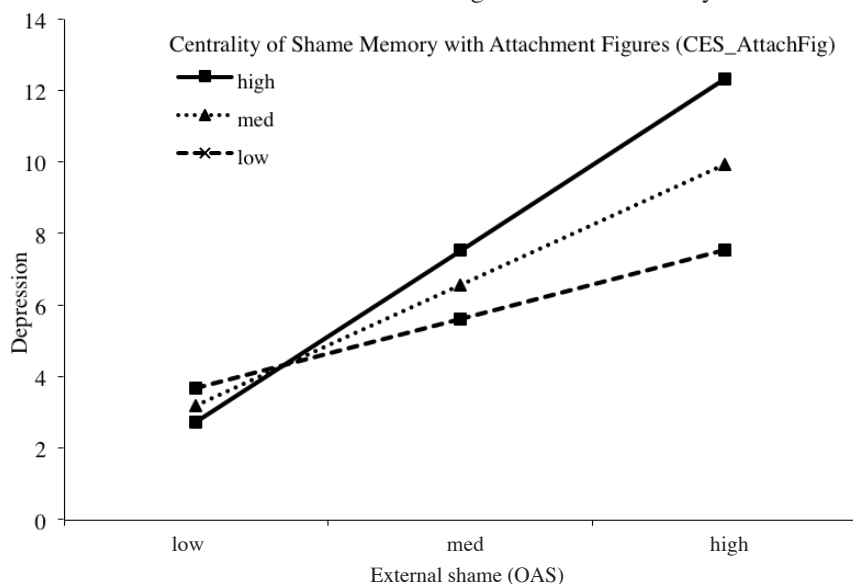


Figure 3. Graphic for the relation between External Shame (OAS) and Depression with different levels of centrality of shame memory with attachment figures (CES_AttachFig).

Table 5. Hierarchical multiple regression using internal shame (ISS) to predict DASS depression having centrality of shame memory with attachment figures (CES_AttachFig) as moderator.

Predictor	Depression	
	ΔR^2	B
Step 1	.40***	
ISS		.64***
Step 2	.01	
ISS		.61***
CES_AttachFig		.08
Step 3	.02**	
ISS		.60***
CES_AttachFig		.06
ISSxCES_AttachFig		.14***
Total R^2	.43***	

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$.

with attachment figures show a positive and high relation with depression comparing to those who have medium and low values. Also, individuals who have medium and low levels of centrality of shame memory with attachment figures but high levels of internal shame show a moderate to high relation with depression. Furthermore, when internal shame levels are low, centrality of shame memories has an opposite but less expressive effect on depression (Figure 4).

Therefore, in both moderator analysis, when the interaction terms were entered on the regression models they produced a significant increase in R^2 , and also revealed an expressive and significant effect upon depression.

Analysis of the interaction terms implies that subjects who had more centrality of shame memory with attachment figures and scored higher on external shame/internal

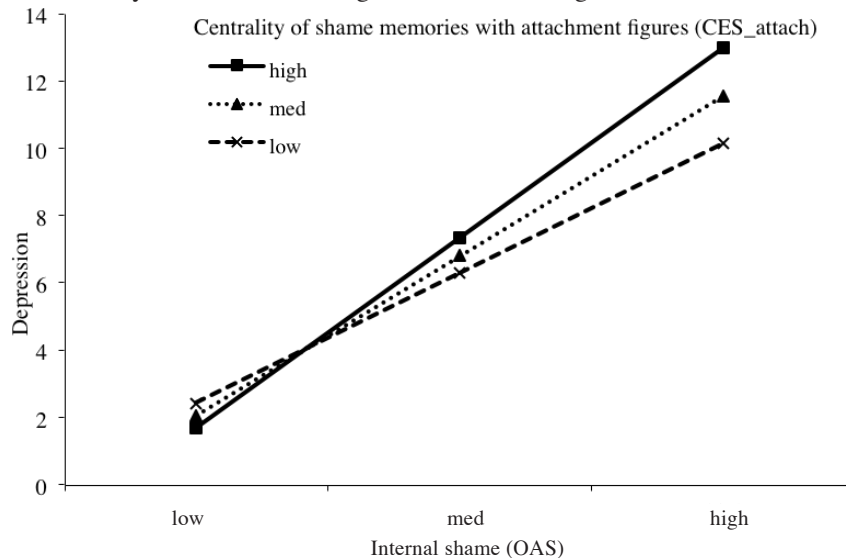


Figure 4. Graphic for the relation between Internal Shame (ISS) and Depression with different levels of centrality of shame memory with attachment figures (CES_AttachFig).

shame were found to be more depressed than those who had less centrality of shame memory: that is, for subjects with the same shame scores, those whose shame memories involving caregivers function as a central events to one's identity and life story would tend to present more depressive symptoms. Therefore, an interaction effect between centrality of shame memory with attachment figures and shame (external and internal) was corroborated suggesting that centrality of shame memory with attachment figures moderates the effect of shame on depression.

DISCUSSION

There is empirical and clinical evidence suggesting that early affiliative relationships, and mainly attachment ones, are crucial to human brain maturation, affect regulation, self-other schema and well-being (Baldwin, 2005; Baumeister & Leary, 1995; Bowlby, 1969, 1973; Gilbert, 1989, 2007a; Guidano & Liotti, 1983; Schore, 1994; Taylor, *et al.*, 2004; Siegel, 2001). Furthermore, recent research has shown that shame experiences from childhood and adolescence can function as traumatic memories and become central to personal identity, and are associated with psychopathological symptoms (Matos & Pinto-Gouveia, 2010; Pinto-Gouveia & Matos, 2011).

However, to date, no study had examined the phenomenological features of early shame experiences involving caregivers and involving other people and their distinct impact on psychological problems. Therefore, the present study built on previous work on shame memories (Matos & Pinto-Gouveia, 2010, 2011; Pinto-Gouveia & Matos, 2011) and focused on recall of being shamed by an attachment figure and being shamed by other people in childhood or adolescence and on how these types of shame memories were related to shame feelings and depressive symptoms in adulthood.

Results from the Shame Experiences Interview (Matos & Pinto-Gouveia, 2006) revealed that the most frequent shame experiences recalled by participants when asked to recall a shame memory that occurred with peers, teachers, strangers or other people, were situations where they have had a negative or devaluing personal characteristic, attribute or behaviour exposed in front of others, situations where they have been negatively commented on about physical appearance issues, and situations where they have been criticized by others. Also, we found that most subjects identified themselves as the source of shame, that is, they considered themselves responsible for the exposure of depreciative characteristics or attributes in front of others, followed by peers and friends. Regarding shame memories involving attachment figures, the most prevalent experiences were being criticized by the caregiver, experiencing reflected shame, exposure of negative characteristics in front of caregiver, being physically abused and negative comments about weight and body, being compared to others and being sexually abused. In these recollections, both the mother and father were remembered as the most frequent sources of shame. These findings add empirical support to the existing literature that identifies experiences of rejection/threat, criticism, emotional neglect, physical and sexual abuse, sibling favouritism or bullying as potential shaming experiences (Andrews, 2002; Claesson & Sohlberg, 2002; Gilbert, 2007b; Gilbert, Allan, & Goss, 1996; Gilbert *et al.*, 2003; Gilbert & Irons, 2008; Gilbert & Gerlsma, 1999; Schore, 1998, 2001; Webb *et al.*,

2007; for a review, see Mills, 2005). Also, the specificity of these shame experiences involving attachment figures and involving others that individuals recall from their childhood and adolescence suggests that shame may be experienced in a variety of situations, all of which entail a primary threat to self identity and social existence and loss of attractiveness in the eyes of others. This fits with the biopsychosocial model of shame (Gilbert, 1998, 2002, 2007b) that argues that shame can emerge from personal experiences arising from specific interactions that occur within the family or in wider social groups. Within family contexts, experiences of criticism, hostility, abuse or neglect from parents will lay down affect-based memories of others as threatening and of the self as unattractive, undesirable or unlovable. In the social domain of peers, shame can arise from the experience of exclusion, criticism or bullying (Hawker & Boulton, 2000). These experiences will influence how individuals perceive themselves oneself as existing in the minds of others (external shame) and self-evaluations (internal shame) (Gilbert, 1998, 2002, 2007b).

In regard to traumatic memory characteristics and centrality to identity, self-report data showed that both shame experiences involving others and shame experiences involving attachment figures revealed traumatic memory qualities, eliciting intrusion, hyperarousal and avoidance symptoms and became central memories to one's identity and life story. Furthermore, we found that both shame traumatic memory and centrality of shame memory with others and with attachment figures were significantly correlated with shame measures. However, and in line with our prediction, shame traumatic memory and centrality of shame memory with others showed higher correlations with external shame, whereas shame traumatic memory and centrality of shame memory with attachment figures revealed higher correlations with internal shame.

These results suggest that individuals whose shame memories operate as traumatic memories and function as turning points in the life story and crucial components of their identity tend to believe they exist negatively in the minds of the others and also perceive themselves and feel inferior, inadequate or undesirable. This is in line with previous studies linking shame memories (Matos & Pinto-Gouveia, 2010; Pinto-Gouveia & Matos, 2011) and recall of early experiences of put-down, indifference, neglect, criticism, rejection or abuse to shame feelings in adulthood (Andrews, 2002; Claesson & Sohlberg, 2002; Gilbert *et al.*, 1996; Gilbert *et al.*, 2003; Gilbert & Irons, 2008; Schore, 1998, 2001; Webb *et al.*, 2007).

These findings further suggest that whilst early shame experiences that involved peers, friends, teachers or strangers might be particularly important for external shame, that is, for experiencing the self as existing negatively in the minds of others, shame memories involving attachment figures might be more closely associated with internalized shame, where one comes to see the self the same way others have, as flawed, worthless, rejectable. This fits with the biopsychosocial model of shame (Gilbert, 1998, 2007b) and attachment literature (Baldwin & Dandena, 2005; Bowlby, 1969, 1973; Mikulincer & Shaver, 2005), in that early shaming interactions with attachment figures, where one as experienced the self as undesirable, flawed, worthless in their eyes, might be internalized and become the basis for negative self-relevant beliefs and key to self-identity. In turn, shame memories where others in the social domain have shamed the self might be

crucial to the creation of interpersonal schemas of how others will view and respond to the self in social interactions and how one exists for others (e.g. others are critical, threatening or hostile, perceive the self as inferior, defective or inadequate and may criticize, reject, harm or ridicule the self).

In addition, we found expressive correlations between shame traumatic memories and centrality of shame memories with others and with attachment figures and depressive symptoms, with shame memories involving caregivers showing the higher associations. These results are consistent with our hypothesis and allow us to conclude that, even though in general individuals whose shame memories reveal traumatic characteristics and that emerge as central for the organization of autobiographical knowledge tend to reveal more depressive symptoms, it is those who recall shame experiences where the self was shamed by a loved one that tend to be more depressed. These findings extend previous work on the association between shame memories and psychopathology (Matos & Pinto-Gouveia, 2010; Pinto-Gouveia & Matos, 2011) and are in accordance with literature suggesting early negative interactions in form of devaluation, abuse, rejection, neglect or abandonment, particularly those that unfold within the attachment bond, elevate vulnerability to psychopathology, specifically to depression (Bifulco & Moran, 1998; Gilbert *et al.*, 1996; Gilbert & Perris, 2010; Gilbert *et al.*, 2003; Parker, 1983; Perris, 1994; Stuewig & McCloskey, 2005; Taylor *et al.*, 2006; Teicher, 2002; Teicher *et al.*, 2006; Webb *et al.*, 2007).

These results together with previous findings on the moderator effect of shame traumatic and central memories on the relationship between shame and depression (Matos & Pinto-Gouveia, 2010, 2011) led us to explore whether there was a distinct moderator effect of shame memories involving attachment figures and shame memories involving others on the association between external and internal shame and depressive symptomatology. Results from a series of hierarchical multiple regression analyses revealed that, although external and internal shame and shame traumatic memory and centrality of shame memory had an independent effect on depression prediction, only shame traumatic memory and centrality of shame memory involving attachment figures moderated the impact of shame on depression.

The same is to say that, in individuals with medium and high levels of external and internal shame, it is those whose shame memories with attachment figures are more traumatic and central to their identity and life story who tend to show more depressive symptoms. Hence, a significant interaction effect between traumatic impact and centrality of shame memories with attachment figures and shame in predicting depressive symptoms was found. In contrast, shame traumatic memories and centrality of shame memories with others had no moderator effect between shame and depression. Thus, even though both shame memories with others and with attachment figures have an independent and significant effect on depression, only shame traumatic and central memories with attachment figures when interacting with current shame feelings amplify their impact on depressive symptoms.

This is a key finding because it highlights the importance of the quality and type of attachment relationships in how shame experiences come to be structured as traumatic and central memories in the autobiographical memory and on their impact

on depression. Furthermore, these results show that shame memories are distinct and may operate in different ways depending on their phenomenology characteristics, one of them being who they occur with.

These data expand previous work (Matos & Pinto-Gouveia, 2010, 2011), empirically support several authors emphasis on the importance of disruptions in attachment relationships in shame dynamics (Gilbert, 1998, 2003, 2007b; Kaufman, 1985, 1989; Lewis, 1971; Nathanson, 1987b, 1992; Schore, 1994, 1996, 1998) and fit with evidence from neuroscience studies that underline the major impact of early experiences in childhood and attachment relationships on physiological, psychological and social aspects of maturation and functioning and on affect regulation (e.g. toning down distress via access to care) (Cozolino, 2007; Depue & Morrone-Strupinsky, 2005; Gerhardt, 2004; Gilbert, 2005b, 2009a; Irons *et al.*, 2006; Pankseep, 1998).

Our results also add to a considerable amount of evidence supporting a relationship between recall of early negative experiences with caregivers (e.g. neglect, threat/rejection, low emotional warmth) and depression (e.g. Parker, 1983; Perris, 1994), and between insecure attachment and depression (Besser & Priel, 2003; Reis & Grenyer, 2002; Whiffen, Aube, Thompson & Campbell, 2000; Roberts, Gotlib, & Kassel, 1996; Pettem, West, Mahoney & Keller, 1993).

In light of the attachment theory (Bowlby, 1969, 1973, 1980; Mikulincer & Shaver, 2005, 2007), it might be that shame memories where the self was shamed by a loved one (father, mother), where the self was felt as flawed, worthless, unlovable in the eyes of the attachment figure, are perceived as global and uncontrollable rejection of the self and may determine the development of negative working models of the self (e.g. as worthless, unlovable) and others (e.g. as threatening, critical, hostile). These memories might then function as self-defining memories in the self-memory system, constituting highly available reference points that guide emotional and thought processing and the organization of autobiographical knowledge (Conway, 2005; Bernstein & Rubin, 2007; Singer & Salovey, 1993). These shame-based internal working models and relational schema, by becoming highly accessible and easily primed emotional memories, can operate both at a conscious and non-conscious level and may then determine involuntary defeat responses, i.e. depressive symptoms, in face of adverse life events (Gilbert, 2007b).

In an evolutionary affect regulation perspective (Gilbert, 2005b, 2009a, 2010), when someone is shamed, neglected or fearful of abuse or withdrawal of love and support as a child, this might over stimulate various brain pathways that underlie the threat system, which in turn may easily trigger more intense and long lasting negative affect and defensive behaviours (e.g. depressive symptoms). Simultaneously, there might be an under stimulation of the affiliative-soothing system, responsible for feelings of safeness and connectedness, with limited articulation of interpersonal schema of self, as lovable and worthy, and others, as soothing and reassuring. So, blocks to this system undermine physiological and emotional regulation and generate difficulties in toning down distress via (self-)soothing. Therefore, early experiences where the source of the shame was also the source of attachment/affiliation, may lay down as conditioned emotional memories where the need for care and soothing becomes associated with sadness, grief, yearning or threat (Gilbert, 2009b). When reactivated, these emotional memories not

only elicit feelings of fear and shame, but also trigger feelings of sadness, grief and loneliness. These threat and affiliative focused affects cannot be regulated given the underdevelopment/blocked access to the affiliative system. This perspective provides a possible explanation of why shame memories with attachment figures function as traumatic and central memories that magnify shame impact on depression.

Furthermore, these individuals might develop complex representations of the others as potentially soothing but also potentially shaming and feel trapped in approach-avoidance conflicts, generating difficulties in the abilities to turn to others for help when facing aversive life events and elevating vulnerability to depression (Liotti, 2000; Sloman, Gilbert, & Hasey, 2003).

The present study adds to an enhanced understanding of the phenomenology of shame experiences and highlights the importance of shame interactions with attachment figures in how shame memories come to be structured as traumatic and key memories to one's identity and life story and influence vulnerability to psychopathological symptoms.

In a therapeutic context, when working with patients experiencing high levels of shame and suffering from depressive symptoms, it might be relevant to assess the phenomenological characteristics of shame memories from childhood and adolescence through structured interviews, such as the SEI. Also, our findings emphasize the pertinence of using specialized clinical interventions, such as compassion focused therapy (Gilbert, 2006; 2007b; 2009a; 2009b; 2010), to target shame memories that have become traumatic and key to self-identity, mainly those that involve attachment figures. Furthermore, it might be essential to reconstruct the autobiographical meaning associated with these recollections in order to minimize their traumatic impact on current symptoms, to reevaluate their centrality to identity and to re-examine and recreate the patient's negative inner working models of self and others.

In addition, this study fits with recent research on processes that block compassion (Gilbert, McEwan, Matos, & Ravis, 2011; Gilbert, McEwan, Gibbons, Chotai, Duarte, & Matos, 2012; Rockliff, Karl, McEwan, Gilbert, Matos, & Gilbert, 2011) and suggests that emotional memories of being shamed by a loved one may be related to difficulties felt by some patients in experiencing self-compassion and receive compassion from others (e.g. from the therapist). In fact, the experience of these feelings in therapy may reactivate these shame memories and trigger conditioned emotional responses (e.g. fight, flight, avoidance). These individuals might find feelings of safeness and warmth weird and scary and respond with anxiety, avoidance, aggression or dissociation when confronted with them. As argued elsewhere (Gilbert, McEwan, Matos, & Ravis, 2011), fears of compassion may constitute a foremost block to recovery, particularly for people with high shame and self-criticism. So, clinically working with these patients' shame memories might help them overcome their inner obstacles to developing compassion.

Limitations to this study are related to its transversal design which limits conclusions about causal relations between the variables. In the future, longitudinal studies could be carried out to overcome this constraint. The use of a non clinical sample impairs the generalization of the findings to clinical populations. Nonetheless, shame and shame memories are transversal processes and mechanisms that operate at a clinical or

nonclinical level. For this reason, we are replicating this research in a clinical sample. Even though self-report measures were administered, a major strength of this study is the use of a semi-structured interview, to assess the phenomenology of shame memories and control for the type of shame event that was recalled by the participants. Finally, attachment styles were not investigated in this study, so future research could look into how different attachment styles are related with shame memories and psychopathology.

Nevertheless, this is the first study that tried to evaluate the phenomenology of shame experiences and distinguish shame memories involving attachment figures from those involving other people from wider social interactions. Overall, we hope that the data offered here helps to shed light on the importance of the quality of attachment relationships in shame dynamics and vulnerability to psychopathology and to encourage further exploration of the different phenomenological features of these emotional experiences.

REFERENCES

- Aiken L & West S (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks: Sage publications.
- Allan S, Gilbert P, & Goss K (1994). An exploration of shame measures: II. Psychopathology. *Personality and Individual Differences*, 17, 719-722.
- Andrews B (2002). Body shame and abuse in childhood. In P Gilbert and J Miles (Eds), *Body Shame: Conceptualisation, Research and Treatment* (pp. 256-266). London: Brunner.
- Andrews B, Qian M, & Valentine J (2002). Predicting depressive symptoms with a new measure of shame: The experience of shame scale. *The British Journal of Clinical Psychology*, 41, 29-33.
- Baldwin MW (1992). Relational schemas and the processing of social information. *Psychological Bulletin*, 112, 461-484.
- Baldwin MW (1997). Relational schemas as a source of if-then self-inference procedures. *Review of General Psychology*, 1, 326-335.
- Baldwin MW (Ed) (2005). *Interpersonal cognition*. New York: Guilford Press.
- Baldwin MW & Dandeneau SD (2005). Understanding and modifying the relational schemas underlying insecurity. In MW Baldwin (Ed), *Interpersonal cognition* (pp. 33-61). New York: Guilford Press.
- Baldwin MW & Holmes JG (1987). Salient private audiences and awareness of the self. *Journal of Personality and Social Psychology*, 52, 1087-1098.
- Baumeister RF & Leary MR (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-529.
- Beck AT (1987). Cognitive models of depression. *Journal of Cognitive Psychotherapy: An International Quarterly*, 1, 5-38.
- Berntsen D & Rubin DC (2006). Centrality of event scale: A measure of integrating a trauma into one's identity and its relation to post-traumatic stress disorder symptoms. *Behaviour Research and Therapy*, 44, 219-231. doi:10.1016/j.brat.2005.01.009
- Berntsen D & Rubin DC (2007). When a trauma becomes a key to identity: Enhanced integration of trauma memories predicts posttraumatic stress disorder symptoms. *Applied Cognitive Psychology*, 21, 417-431. doi:10.1002/acp.1290.
- Besser A & Priel B (2003). A multisource approach to self-critical vulnerability to depression: The moderating role of attachment. *Journal of Personality*, 71, 515-555.
- Bifulco A & Moran P (1998) *Wednesday's Child: Research into Women's Experiences of Neglect and Abuse in Childhood, and Adult Depression*. London: Routledge
- Bowlby J (1969). *Attachment: Attachment and Loss, Vol. 1*. London: Hogarth Press.
- Bowlby J (1973). *Separation, Anxiety and Anger: Attachment and Loss, vol. 2*. London: Hogarth Press.

- Bowlby J (1980). *Loss: Sadness and Depression. Attachment and Loss, Vol. 3*. London: Hogarth Press.
- Brewin CR (2006). Understanding cognitive behaviour therapy: A retrieval competition account. *Behaviour Research and Therapy*, 44, 765-784.
- Buss DM (2003). *Evolutionary Psychology: The New Science of Mind*. Second edition. Boston: Allyn and Bacon.
- Byrne RW (1995). *The thinking ape*. Oxford: Oxford University Press.
- Cacioppo JT, Berston GG, Sheridan JF, & McClintock MK (2000). Multilevel integrative analysis of human behavior: Social neuroscience and the complementing nature of social and biological approaches. *Psychological Bulletin*, 126, 829-843.
- Cacioppo JT & Hawkley LC (2009). Loneliness. In M. R. Leary & R. H. Hoyle (Eds), *Handbook of individual differences in social behavior* (pp. 227-239). New York: Guilford.
- Caporael LR (2001). Evolutionary psychology: Toward a unifying theory and a hybrid science *Annual Review of Psychology*, 52, 607-628.
- Carter CS (1998). Neuroendocrine perspectives on social attachment and love. *Psychoneuroendocrinology*, 23, 779-818.
- Cheung MSP, Gilbert P, & Irons C (2004). An exploration of shame, social rank and rumination in relation to depression. *Personality and Individual Differences*, 36, 1143-1153.
- Claesson K & Sohlberg S (2002). Internalized shame and early interactions characterized by indifference, abandonment and rejection: Replicated findings. *Clinical Psychology and Psychotherapy*, 9, 277-284.
- Cohen J, Cohen P, West S, & Aiken L (2003). *Applied multiple regression/correlation analysis for the behavioural sciences* (3th Edition.). New Jersey: Lawrence Erlbaum Associates.
- Conway MA (2005). Memory and the self. *Journal of Memory and Language*, 53, 594-628.
- Conway M & Pleydell-Pearce CW (2000). The construction of autobiographical memories in the self-memory system. *Psychological Review*, 107, 261-288.
- Cook DR (1994, 2001). *Internalized shame scale: Technical manual*. North Tonawanda, NY: Multi-Health Systems, Inc.
- Cozolino L (2006). *The Neuroscience of Human Relationships: Attachment and the Developing Brain*. New York: Norton.
- Depue RA & Morrone-Strupinsky JV (2005). A neurobehavioral model of affiliative bonding. *Behavioral and Brain Sciences*, 28, 313-395.
- del Rosario PM & White RM (2006). The Internalized Shame Scale: Temporal stability, internal consistency, and principal components analysis. *Personality and Individual Differences*, 41, 95-103.
- Dickerson SS & Kemeny ME (2004). Acute stressors and cortisol response: A theoretical integration and synthesis of laboratory research. *Psychological Bulletin*, 130, 335-391.
- Eisenberger NI (2011). Why rejection hurts: What social neuroscience has revealed about the brain's response to social rejection. In J Decety & J Cacioppo (Eds). *The Handbook of Social Neuroscience* (pp. 586-598). New York, NY: Oxford University Press.
- Gerhardt S (2004). *Why Love Matters. How Affection Shapes a Baby's Brain*. London: Bruner-Routledge.
- Gilbert P (1989). *Human Nature and Suffering*. Hove: Lawrence Erlbaum Associates.
- Gilbert P (1993). Defence and safety: Their function in social behaviour and psychopathology. *British Journal of Clinical Psychology*, 32, 131-153.
- Gilbert P (1998). What Is Shame? Some Core Issues and Controversies. In P Gilbert & B Andrews (Eds). *Shame: Interpersonal Behaviour, Psychopathology and Culture* (pp. 3-36). New York: 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.
- Gilbert P (2003). Evolution, Social Roles and the Differences in Shame and Guilt. *Social Research*, 70, 1205-1230.
- Gilbert P (2005a). Social mentalities: A biopsychosocial and evolutionary reflection on social relationships. In MW Baldwin (Ed). *Interpersonal Cognition*. (pp. 299-335). New York: Guilford Press.

- Gilbert, P. (Ed) (2005b). *Compassion: Conceptualisations, Research and Use in Psychotherapy*. London: Routledge.
- Gilbert P (2006). A biopsychosocial and evolutionary approach to formulation with a special focus on shame. In N Tarrier (Ed), *Case formulation in cognitive behaviour therapy: The treatment of challenging and complex cases* (pp. 81-112). Hove: Routledge.
- Gilbert P (2007a). *Psychotherapy and Counselling for Depression*, 3rd Edition. London: Sage.
- Gilbert P (2007b). The evolution of shame as a marker for relationship security. In JL Tracy, RW Robins & JP Tangney, (Eds). *The Self-Conscious Emotions: Theory and Research* (pp. 283-309). New York: Guilford.
- Gilbert P (2009a). *The Compassionate Mind: A New Approach to Life's Challenges*. London: Constable-Robinson. Oaklands, CA: New Harbinger.
- Gilbert P (2009a). Evolved minds and compassion focused imagery in depression. In L Stropa (Eds). *Imagery and the Threatened Self: Perspectives on Mental Imagery in Cognitive Therapy* (pp. 206-231). London: Routledge.
- Gilbert P (2010). *Compassion Focused Therapy: Distinctive Features*. London: Routledge.
- Gilbert P, Allan S & Goss K (1996). Parental representations, shame, interpersonal problems, and vulnerability to psychopathology. *Clinical Psychology and Psychotherapy*, 3, 23-34.
- Gilbert P, Cheung M, Wright T, Campey F, & Irons C (2003). Recall of threat and submissiveness in childhood: Development of a new scale and its relationship with depression, social comparison and shame. *Clinical Psychology and Psychotherapy*, 10, 108-115.
- Gilbert P & Irons C (2008) Shame, self-criticism, and self-compassion in adolescence. In NB Allen & LB Sheeber (Eds), *Adolescent Emotional Development and the Emergence of Depressive Disorders* (pp. 195-214). London: Cambridge University Press.
- Gilbert P & Gerlsma C (1999). Recall of favouritism in relation to psychopathology. *British Journal of Clinical Psychology*, 38, 357-373.
- Gilbert P, McEwan K, Mitra R, Franks L, Richter A, & Rockliff H (2008). Feeling safe and content: A specific affect regulation system? Relationship to depression, anxiety, stress and self-criticism. *Journal of Positive Psychology*, 3, 182-191.
- Gilbert, P, McEwan K, Matos M, & Ravis A (2011). Fear of compassion: a study of psychological processes that block compassion. *Psychology and Psychotherapy: Theory, Research and Practice*, 84, 239-255. doi: 10.1348/147608310X526511.
- Gilbert P, McEwan K, Gibbons L, Chotai S, Duarte J, & Matos M (2012). Fears of compassion and happiness in relation to alexithymia, mindfulness and self-criticism. *Psychology and Psychotherapy: Theory, Research and Practice*, 85, 374-390. doi: 10.1111/j.2044-8341.2011.02046.x.
- Goss K, Gilbert P, & Allan S (1994). An exploration of shame measures I. The "Other as Shamer Scale". *Personality and Individual Differences*, 17, 713-717.
- Gross CA, & Hansen NE (2000). Clarifying the experience of shame: the role of attachment style, gender, and investment in relatedness. *Personality and Individual Differences*, 28, 897-907.
- Guidano V & Liotti G (1983). *Cognitive processes and emotional disorders*. New York, Guilford Press.
- Hamilton WD (1964). The evolution of social behavior. *Journal of Theoretical Biology*, 7, 1-52.
- Hawker DS & Boulton MJ (2000). Twenty years' research on peer victimisation and psychosocial maltreatment: A meta-analytic review of cross sectional studies. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 41, 441-455.
- Irons C, Gilbert P, Baldwin MW, Baccus JR, & Palmer M (2006). Parental recall, attachment relating and self-attacking/self-reassurance: Their relationship with depression. *British Journal of Clinical Psychology*, 45, 297-308.
- Kaufman G (1985). *Shame: The power of caring* (rev. ed.). Rochester, VT: Schenkman Books.
- Kaufman G (1989). *The Psychology of Shame: Theory and Treatment of Shame-based Syndromes*. New York: Springer.
- Keltner D & Harker LA (1998). The forms and functions of the nonverbal signal of shame. In P Gilbert & B Andrews (Eds) *Shame: Interpersonal Behavior, Psychopathology and Culture* (pp. 75-98). Oxford University Press: New York.
- Kennedy S, Kiecolt-Glaser JK, & Glaser R (1989). Neuroimmunology of normal human behavior. In

- E. Goetzl, (Ed), *Neuroimmune Networks: Physiology and Diseases* (pp. 215-218). New York: Alan Liss.
- Kim S, Thibodeau R, & Jorgensen R (2011). Shame, guilt, and depressive symptoms: A meta-analytic review. *Psychological Bulletin*, 137(1), 68-96.
- LeDoux J (1998). *The Emotional Brain*. London: Weidenfeld and Nicolson.
- Lewis HB (1971). *Shame and guilt in neurosis*. New York: International Universities Press.
- Lewis M (1992). *Shame: The Exposed Self*. New York: The Free Press.
- Liotti G (2000). Disorganized attachment, models of borderline states, and evolutionary psychotherapy. In P Gilbert & K Bailey (Eds), *Genes on the couch: Essays in evolutionary psychotherapy* (pp. 232-256). Hove: Psychology Press.
- Liotti G & Gilbert P (2011). Mentalizing, motivation, and social mentalities: Theoretical considerations and implications for psychotherapy. *Psychology and Psychotherapy: Theory, Research and Practice*, 84, 9-25.
- Lopez FG, Gover MR, Leskela J, Sauer EM, Schirmer L, & Wyssmann J (1997). Attachment styles, shame, guilt, and collaborative problem-solving orientations. *Personal Relationships*, 4, 187-199.
- Lovibond P & Lovibond H (1995). The structure of negative emotional states: Comparison of the depression anxiety stress scales (DASS) with beck depressive and anxiety inventories. *Behaviour Research and Therapy*, 3, 335-343.
- MacDonald G & Leary MR (2005). Why does social exclusion hurt? The relationship between social and physical pain. *Psychological Bulletin*, 131, 202-223.
- Macdonald K & Macdonald TM (2010). The peptide that binds: A systematic review of oxytocin and its prosocial effects in humans. *Harvard Review of Psychiatry*, 18, 1-21.
- Matos M & Pinto-Gouveia J (2006). The Shame Experiences Interview. *Unpublished manuscript*.
- Matos M & Pinto-Gouveia J (2010). Shame as a traumatic memory. *Clinical Psychology and Psychotherapy*, 17, 299-312. doi: 10.1002/cpp.659
- Matos M & Pinto-Gouveia J (2011). Centrality of shame memory as a moderator on the relationship between shame and depression. (*Submitted manuscript*).
- Matos M, Pinto-Gouveia J, & Costa V (2013). Understanding the importance of attachment in shame traumatic memory relation to depression: The impact of emotion regulation processes. *Clinical Psychology and Psychotherapy*, 20, 149-165. doi: 10.1002/cpp.786
- Matos M, Pinto-Gouveia J, & Duarte C (2012a). Other as Shamer: Versão portuguesa e propriedades psicométricas de uma medida de vergonha externa. (*Submitted manuscript*).
- Matos M, Pinto-Gouveia J, & Duarte C (2012b). When I don't like myself: Study of the psychometric properties of the Portuguese version of the Internalized Shame Scale. *The Spanish Journal of Psychology*, 15, 1411-1423. doi: 10.5209/rev_SJOP.2012.v15.n3.39425.
- Matos M, Pinto-Gouveia J, & Gilbert P (2013). The effect of shame and shame memories on paranoid ideation and social anxiety. *Clinical Psychology and Psychotherapy*, 20, 334-349. doi: 10.1002/cpp.1766.
- Matos M, Pinto-Gouveia J, & Gomes P (2010). A Centralidade das Experiências de Vergonha: Estudo das propriedades psicométricas da versão portuguesa da Escala da Centralidade do Acontecimento. *Psicologia*, XXIV, 73-95.
- Matos M, Pinto-Gouveia J, & Martins S (2011). O Impacto Traumático de Experiências de Vergonha: Estudo das propriedades psicométricas da versão portuguesa da Impact of Event Scale-Revised. *Psicologica*, 54, 413-438.
- Masten AS (2001). Ordinary Magic: Resilience processes in development. *American Psychologist*, 56, 227-238.
- McAdams DP (2001). The psychology of life stories. *Review of General Psychology*, 5, 100-122.
- McAdams DP, Josselson R, & Lieblich A (Eds). (2006). *Identity and story: Creating self in narrative*. Washington, DC: APA Books.
- Mikulincer M & Shaver PR (2004). Security-based self-representations in adulthood: Contents and processes. In WS Rholes & JA Simpson (Eds), *Adult attachment: Theory, research, and clinical implications* (pp. 159-195). New York: Guilford Press.
- Mikulincer M, & Shaver P (2005). Mental representations of attachment security: theoretical foundations

- for a positive social psychology. In MW Baldwin (Ed), *Interpersonal cognition* (pp. 233-266). New York: Guilford.
- Mikulincer M & Shaver PR (2007). *Attachment in Adulthood: Structure, Dynamics, and Change*. New York: Guilford.
- Mills RSL (2005). Taking stock of the developmental literature on shame. *Developmental Review*, 25, 26-63.
- Nathanson DL (Ed) (1987). *The many faces of shame*. New York: Guilford.
- Nathanson DL (1992). *Shame and pride: Affect, sex, and the birth of the self*. New York: W.W. Norton.
- Pais-Ribeiro J, Honrado A, & Leal I (2004). Contribuição para o estudo da adaptação portuguesa das Escalas de Ansiedade Depressão e Stress de Lovibond e Lovibond. *Psychologica*, 36, 235-246.
- Panksepp J (1998). *Affective Neuroscience*. New York: Oxford University Press.
- Parker G (1983). *Parental overprotection: A risk factor in psychosocial development*. New York: Grune and Stratton.
- Perris C (1994). Linking the experience of dysfunctional parental rearing with manifest psychopathology: A theoretical framework. In C Perris, WA Arrindell, & M Eisemann (Eds), *Parenting and psychopathology* (pp. 3-32). Chichester: Wiley.
- Perry B, Pollard R, Blakley T, Baker W, & Vigilante, D (1995). Childhood trauma, the neurobiology of adaptation, and "use dependent" development of the brain: How states become traits. *Journal of Infant Mental Health*, 16, 271-291.
- Perris C & Gilbert P (2000). Early experiences and subsequent psychosocial adaptation. *Clinical Psychology and Psychotherapy*, 7, 243-342.
- Pettem O, West M, Mahoney A, & Keller A (1993). Depression and attachment problems. *Journal of Psychiatry and Neuroscience*, 18, 78-81.
- Pinto-Gouveia J & Matos M (2011). Can shame memories become a key to identity? The centrality of shame memories predicts psychopathology. *Applied Cognitive Psychology*, 25, 281-290. doi: 10.1002/acp.1689.
- Pinto-Gouveia J, Matos M, Castilho P, & Xavier A (2014). Differences between Depression and Paranoia: The role of emotional memories, shame and subordination. *Clinical Psychology and Psychotherapy*, 21, 49-61. doi: 10.1002/cpp.1818.
- Porges S (2003). The Polyvagal theory: phylogenetic contributions to social behaviour. *Physiology & Behavior*, 79, 503-513.
- Porges SW (2007). The polyvagal perspective. *Biological Psychology*, 74, 116-143.
- Reis S & Grenyer BFS (2002). Pathways to anaclitic and introjective depression. *Psychology and Psychotherapy: Theory, Research and Practice*, 75, 445-459.
- Roberts JE, Gotlib IH, & Kassel JD (1996). Adult attachment security and symptoms of depression: The mediating roles of dysfunctional attitudes and low self-esteem. *Journal of Personality and Social Psychology*, 70, 310-320.
- Rockliff H, Karl A, McEwan K, Gilbert J, Matos M, & Gilbert P (2011). Effects of intranasal oxytocin on compassion focused imagery. *Emotion*, 11, 1388-1396. doi: 10.1037/a0023861
- Schore AN (1994). *Affect regulation and the origin of the self: The neurobiology of emotional development*. Hillsdale, NJ: Erlbaum.
- Schore AN (1996). The experience-dependent maturation of a regulatory system in the orbital prefrontal cortex and the origin of developmental psychopathology. *Development and Psychopathology*, 8, 59-87.
- Schore AN (1998). Early shame experiences and infant brain development. In P Gilbert & B Andrews (Eds.), *Shame: Interpersonal behavior, psychopathology, and culture* (pp. 57-77). London: Oxford University Press.
- Schore AN (2001) The effects of early relational trauma on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal*, 22, 201-269.
- Siegel DJ (2001). *The Developing Mind: How relationships and the brain interact to shape who we are*. New York, London: The Guildford Press.
- Singer JA & Salovey P (1993). *The remembered self-emotion and memory in personality*. New York: The Free Press.

- Sloman L, Gilbert P, & Hasey G (2003). Evolved mechanisms in depression: The role and interaction of attachment and social rank. *Journal of Affective Disorders*, 74, 107-121.
- Stuewig J & McCloskey L (2005). The impact of maltreatment on adolescent shame and guilt: Psychological routes to depression and delinquency. *Child Maltreatment*, 10, 324-336.
- Sutin AR & Robins RW (2008). Going forward by drawing from the past: Personal strivings, personally meaningful memories, and personality traits. *Journal of Personality*, 76, 631-664. doi:10.1111/j.1467-6494.2008.00499.x
- Tangney JP & Dearing RL (2002). *Shame and Guilt*. New York: Guilford Press.
- Tangney JP & Fischer KW (1995). *The Self-Conscious Emotions: Shame, Guilt, Embarrassment, and Pride*. New York: Guilford Press.
- Taylor S (2010). Mechanisms linking early life stress to adult health outcomes. *Proceedings of the National Academy of Sciences*, 107 (19), 8507-8512.
- Taylor SE, Lerner JS, Sage RM, Lehman BJ, & Seeman TE (2004). Early environment, emotions, responses to stress, and health. Special Issue on Personality and Health. *Journal of Personality*, 72, 1365-1393.
- Taylor SE, Way BM, Welch WT, Hilmert CJ, Lehman BJ, & Eisenberger NI (2006). Early family environment, current adversity, the serotonin transporter polymorphism, and depressive symptomatology. *Biological Psychiatry*, 60, 671-676.
- Teicher M (2002). Scars that won't heal: the neurobiology of child abuse. *Scientific American*, 286, 68-75.
- Teicher MH, Samson JA, Polcari A, & McGrenery CE (2006). Sticks, stones, and hurtful words: Relative effects of various forms of childhood maltreatment. *American Journal of Psychiatry*, 163, 993-1000.
- Tracy JL & Robins RW (2004). Putting the self into self-conscious emotions: A theoretical model. *Psychological Inquiry*, 15, 103-125.
- Wang S (2005). A conceptual framework for integrating research related to the physiology of compassion and the wisdom of Buddhist teachings. In P Gilbert (Ed). *Compassion: Conceptualisations, research and use in psychotherapy* (pp. 75-120). London: Brunner-Routledge.
- Webb M, Heisler D, Call S, Chickering SA, & Colburn TA (2007). Psychological maltreatment: Its relationship to shame, guilt, and depression. *Child Abuse & Neglect: The International Journal*, 31, 1143-1153.
- Wei M, Shaffer PA, Young SK, & Zakalik RA (2005). Adult Attachment, Shame, Depression, and Loneliness: The Mediation Role of Basic Psychological Needs Satisfaction. *Journal of Counseling Psychology* 52, 591-601. doi: 10.1037/0022-0167.52.4.591.
- Weiss DS & Marmar CR (1997). The Impact of Event Scale-Revised. In JP Wilson & TM Keane (Eds.), *Assessing Psychological trauma and PTSD* (pp. 399-411). New York: Guilford Press.
- Wells GB (1996). *Adult attachment styles and internalized shame*. Paper presented at the annual meeting of the Society for Research in Adult Development, Boston, MA.
- Whiffen VE, Aube JA, Thompson JM, & Campbell TL (2000). Attachment beliefs and interpersonal contexts associated with dependency and self-criticism. *Journal of Social and Clinical Psychology*, 19, 184-205.

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