When does shame become problematic for well-being? An examination of the factors that may influence perceived reparability

By

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Summary

Shame research is divided. On one hand, shame is commonly conceptualised as an "ugly" emotion that motivates an avoidance response and is detrimental to well-being. On the other, shame has been championed as an adaptive emotion that alerts us to when we have acted in a way that threatens our social belongingness and motivates us to repair social bonds. In response to this seemingly contradictory literature, shame is commonly redefined to fit a position within this debate. For example, some have defined and operationalised shame as a maladaptive withdrawal response while others suggest that once shame is differentiated from a felt sense of inferiority and rejection it motivates an approach and repair response. Rather than continue to redefine shame, it is reasonable to suggest that shame — like other emotions — evolved to serve a functional purpose but can become problematic under certain circumstances. Rather than continue to attempt to respond to the question of, "is shame functional or problematic?" this thesis will seek to instead integrate these perspectives, and understand "when does shame, a functional emotion, become problematic?"

A recent meta-analysis showed that approach responses to shame are more likely when a repair option is available compared to when it is not (Leach & Cidam, 2015). I extend on this by investigating three factors that may influence the reparability of shame in daily life: the perceived malleability of the self (i.e., *self-theories*), the presence of identities with conflicting normative standards (i.e., *identity conflict*), and the stigmatising responses of others. Furthermore, I investigate whether these factors also influence shame's relationship with psychological distress. Adjunct to these investigations I also test whether the intensity of shame influences responses to shame, drawing on Yerkes Dodson Law and Emotional Intensity Theory (Brehm, 1999; Yerkes & Dodson, 1908).

Chapter 1 provides an overview of the current shame literature in relation to shame's seemingly contradictory outcomes and how this literature can be integrated. Chapter 2

investigates the possibility that self-theories influence the perceived reparability of shame and in turn shame's outcomes. Chapter 3 then tests whether identity conflict is associated with shame that is perceived as difficult to repair and in turn likely to motivate an avoidance response and result in psychological distress. Chapter 4 extends this research on identity conflict, considering also the influence of others' stigmatising responses. Finally, Chapter 5 provides a General Discussion of the current findings.

Overall, the findings of this thesis affirm that shame can motivate both avoidance and approach tendencies. Interestingly, these avoidance and approach tendencies are not mutually exclusive as presumed, providing an important consideration for future shame research. The thesis also suggests that a person's perceived reparability of their self and social-image influences the relationship between shame and a motivation to change the self. However, the influence of this perceived reparability on shame's relationship with psychological distress is questionable. While results suggest that self-theories do not influence shame's motivational and psychological consequences, and that the influences of social factors (i.e., the experience of identity conflict and stigma) are inconsistent, it highlights promising avenues for future research.

Declaration

I certify that this thesis does not incorporate without my acknowledgement any material previously submitted for a degree or diploma in any university; and to the best of my knowledge and belief, does not contain any material previously published or written by another person except where due reference is made in the text.

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Statement of Co-Authorship

Chapter 1

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CHAPTER 1 – Moving Beyond "Shame is Bad": How a Functional Emotion *Can* Become Problematic

Shame has been portrayed as a negative emotion associated with problematic outcomes for well-being, an enemy from which we need to be released. This view, perhaps most popularized through Brené Brown's famous TED talk "Listening to Shame" (TED, 2012), is now shared by many lay people, clinicians, and researchers. The notion has been reinforced by a range of research, particularly research showing associations between shame and psychopathologies such as depression, social anxiety, and post-traumatic stress disorder (PTSD). However, a functionalist view of emotions asserts that emotions have evolved to serve purposes that historically assisted survival. Rather than shame being an "ugly" emotion (Tangney, 1991, p. 600), functionalists argue that shame evolved to protect individuals' social bonds and social status, specifically by alerting individuals to when their social belongingness is threatened (e.g., de Hooge, Zeelenberg, & Breugelmans, 2011; Fessler, 2007; Gilbert, 2007). This functionalist view is supported empirically by research showing that both individual and collective shame can lead to beneficial outcomes such as pro-social tendencies and a desire to change the self for the better (Ahmed & Braithwaite, 2006; de Hooge, Zeelenberg, & Breugelmans, 2010; de Hooge et al., 2011; Lickel, Kushlev, Savalei, Matta, & Schmader, 2014; Menesini & Camodeca, 2008; Olthof, 2012). This leaves us with a dichotomy in the literature: while there is research that supports the notion of shame as a problematic emotion, there is seemingly contradictory theory and evidence that suggests shame is a functional emotion.

Many have tried to expunge these contradictions through various re-conceptualizations of shame that separate the "functional" components from the "problematic". The result, however, has led to an array of ever narrower conceptualizations that may limit our understanding of the lived experience of shame. Rather than continue the

debate of whether shame is problematic or functional, we suggest that it may be more accurate and useful to instead accept that shame, like many other emotions, can be both functional and problematic. For example, the emotion of fear, while functional to the extent that it alerts us to threat and motivates us for action to protect ourselves against threat, can nonetheless become problematic when the experience is disproportionate to the threat, occurs without cause, or is prolonged (Marks, 1987). Similarly, to extend our understanding of shame and how humans process the experience of shame, we need to identify when and why shame, a functional emotion, can become problematic. In this review we provide an overview of shame research, suggesting that shame is functional but can become problematic when it motivates an avoidance response. As recent research indicates that this avoidance response is most likely when the cause of shame is perceived as irreparable (for a meta-analysis, see Leach & Cidam, 2015), we suggest factors that may influence the reparability of shame, and may in turn be important to consider when developing strategies to resolve problematic shame.

Problematic Versus Functional Shame

Shame is often understood as a negative or problematic emotion. Numerous studies have supported the view that shame is unhelpful for psychological well-being. State shame (e.g., Experience of Shame Scale: Turner, 2014), trait shame (e.g., Personal Feelings Questionnaire-2: Harder & Zalma, 1990), and shame-proneness (i.e., vulnerability to shame across a variety of hypothetical situations, measured by the Test of Self Conscious Affect 3: Tangney, Dearing, Wagner, & Gramzow, 2000) have been associated with psychopathologies such as social anxiety (Gilbert, 2000; Matos, Pinto-Gouveia, & Gilbert, 2013), eating disorders (Keith, Gillanders, & Simpson, 2009), narcissistic personality disorder (Ritter et al., 2013), and depression (Andrews, Qian, & Valentine, 2002; Cheung, Gilbert, & Irons, 2004; Gilbert, 2000; Kim, Thibodeau, & Jorgensen, 2011). In addition, a number of studies have

demonstrated the role of both acute and prolonged shame in the development and maintenance of PTSD (e.g., Andrews, Brewin, Rose, & Kirk, 2000; Budden, 2009; Feiring & Taska, 2005; La Bash & Papa, 2014; Oktedalen, Hoffart, & Langkaas, 2015).

As well as being problematic for an individual's psychological health, shame has also been shown to impede interpersonal processes. It has been suggested that the experience of shame and associated high personal distress leads to a focus on the self rather than on the shameful behavior or those affected by the behavior (Leith & Baumeister, 1998; Tangney, 1991). Results have also demonstrated that shame-proneness is positively correlated with anger, irritability, and the defensive externalization of blame (Tangney, 1990; Tangney, Wagner, Fletcher, & Gramzow, 1992).

While this research may suggest that shame is a dysfunctional emotion, this position seems to be misaligned with functional or evolutionary perspectives on emotion. According to these theories, emotions evolved to serve functional, survival-related purposes (for an overview, see Keltner & Gross, 1999), where survival for humans is intimately linked to social belonging (Baumeister & Leary, 1995). These socio-functional theories have since been applied to shame (Fessler, 2007; Gilbert, 2007; Muris & Meesters, 2014). From an evolutionary perspective, shame is likely to have evolved through natural selection to serve an adaptive function (Fessler, 2007; Gilbert, 2007). Specifically, it has been suggested that shame arises when the social self is threatened, either because of the loss of social status or social bonds, or because the self is perceived as undesirable to others (Gruenewald, Dickerson, & Kemeny, 2007; Scheff, 1988).

A number of researchers have suggested that shame operates in an analogous way to Leary and Baumeister's sociometer notion of self-esteem (Leary & Baumeister, 2000); that is, as an acute emotional gauge that indicates threats to the social self (de Hooge, 2014; de Hooge et al., 2011; Ferguson, 2005; Gruenewald et al., 2007; Nelissen, Breugelmans, &

Zeelenberg, 2013). In this way, shame and self-esteem can seem quite similar, both involving negative evaluations about the self in response to perceived social standards. Despite the similarities, shame and self-esteem are distinguishable in that shame is a distinct emotion in response to a particular feature of the self (or an event that implicates a specific feature of the self), whereas self-esteem is a general belief about the self that impacts on multiple self-features. Nonetheless, both serve the goal of social survival, helping individuals to maintain relational bonds and status within groups.

A functionalist perspective would suggest that shame helps individuals to focus on sources of threat in order to repair the threat. Research shows that shame can motivate people to take action to mend their moral-social status or image, or bonds with others (Ahmed & Braithwaite, 2006; de Hooge et al., 2010; de Hooge et al., 2011; Menesini & Camodeca, 2008; Olthof, 2012). For example, in intergroup contexts, collective shame has been found to be positively related to support for policies to end ingroup wrongdoing and engage in reparations (Brown & Cehajic, 2008; Brown, Gonzalez, Zagefka, Manzi, & Cehajic, 2008; Iyer, Schmader, & Lickel, 2007). Similarly, at a personal level, participants who reflected upon a shame experience were more likely to endorse statements such as "I felt the urge to be a better person" (Lickel et al., 2014, p. 1052).

In regards to interpersonal functioning, some researchers have argued that shame can increase prosocial behavior. Children whose peers and/or teachers reported them to be pro-social experienced higher levels of shame in hypothetical scenarios, compared to those who were reported to be "bullies" (Menesini & Camodeca, 2008; Olthof, 2012). Conversely, children who did not acknowledge shame (e.g., through blaming others and becoming aggressive) were more likely to be bullies than those who experienced and acknowledged their shame (Ahmed & Braithwaite, 2004). Justice researchers have argued that acknowledging shame is a key factor in processing transgressions, and is associated with

taking responsibility and making amends following transgressions, whereas those reporting low shame are more likely to show patterns of repeat offending (Ahmed, Harris, Braithwaite, & Braithwaite, 2001). Indeed, amongst offenders who were higher on shame proneness, shame was related to lower rates of recidivism (when controlling for externalization of blame) one year following incarceration (Tangney, Stuewig, & Martinex, 2014). Shame has also been associated with both reconciliation and self-forgiveness following interpersonal transgressions (Woodyatt & Wenzel, 2014). These results suggest that shamelessness is potentially problematic, and that shame can adaptively signal that behavior needs to change for the future. How is it that this single emotion can play these dual roles, on one hand being linked to so many problematic aspects of psychological well-being, while on the other playing an important role in social functioning?

How Conflicting Outcomes Have Led to Narrow Re-Definitions of Shame

In an apparent attempt to avoid the contradictory nature of shame, there have been suggestions to redefine shame in, broadly, one of two ways. On the one hand, shame has been conceptualized as problematic and, in turn, distinguished from more functional emotions (such as guilt). On the other hand, shame has been conceptualized as unanimously functional and, in turn, distinguished from even more problematic feelings (such as the feeling of inferiority).

Tangney and Dearing (2002) provide a common example of how shame is defined as solely problematic; when it is defined in relation to guilt, shame becomes the problematic emotion, and guilt the constructive emotion. There are two different empirical approaches that have led to this conclusion. The first is through examining "shame-free guilt" and "guilt-free shame" (Tangney & Dearing, 2002). In this approach, participants are asked to rate their shame in response to a scenario or recalled shameful experience. Researchers also measure guilt in the same way, and then use partial correlations to examine "shame-free guilt" and

"guilt-free shame". Although shame and guilt are distinguishable on a cognitive level (i.e., guilt is a negative evaluation of behavior while shame is a negative evaluation of a feature of the self: a distinction first alluded to by Lewis, 1971), there is high correlation between the emotions (Lickel et al., 2014; Tangney, Miller, Flicker, & Barlow, 1996). As argued by Cohen, Wolf, Panter, and Chester (2011), it is questionable as to what is left of shame that is "guilt-free". The line between the two emotions is often blurred for individuals experiencing these emotions in any given situation, particularly in a clinical context.

The second approach which has led to shame being understood as problematic has been to operationalize shame and guilt as distinct behaviors. Based on the common conceptualization of shame as a focus on the self and guilt as a focus on behavior (e.g., Tangney, 1991, 1998; Tracy & Robin, 2004), Tangney and colleagues (1996) suggest that shame motivates avoidance responses because of the overwhelming nature of negative self-evaluation, while guilt motivates reparation responses as behavior is easier to modify than the self. This conceptualization is reflected in the TOSCA-3 (Tangney et al., 2000), a common measure of shame-proneness. In this measure, participants are presented with hypothetical scenarios that detail a social transgression and asked to rate the likelihood that they would respond with four different reaction options. Responses that indicate avoidance and approach are said to reflect shame and guilt, respectively. This conceptualization is also evident within the Experience of Shame Scale, whereby endorsement of avoidance responses (e.g., "Have you avoided contact with anyone who knew you said something stupid?") are suggested to be reflective of shame (Andrews et al., 2002, p. 41). However, measuring avoidance tendencies as representative of shame may lead to the measurement of only one form of shame (i.e., a form of shame that leads to avoidance). In the development of a new Shame and Guilt Proneness Scale (GASP), Cohen and colleagues (2011) demonstrated that negative self-evaluations (e.g., those indicative of shame) were not associated with avoidance responses,

and that rather than shame, it was avoidance responses which were associated with undesirable traits (e.g., aggression, Study 1). Therefore, measures of shame that confound it with avoidance (and guilt with repair) can lead to a circular process, whereby studies support the conceptualization of shame as problematic and guilt as functional, because of the way in which the scales are constructed. Together, the two methodological features reviewed result in confirmatory, but possibly erroneous, evidence that shame is a solely problematic emotion that always motivates avoidance tendencies.

Other researchers also contend that shame has been confounded with other emotions, but conversely argue that shame is functional when distinguished from other problematic emotions or cognitions. Gausel and Leach (2011), for example, suggest that shame leads to exclusively pro-social behaviors, once it is differentiated from feelings of rejection and inferiority. In this instance, shame is defined as an intense self-criticism arising from a risk to self-image, as opposed to social image. Threat to social image is suggested to give rise to felt rejection, which leads to self-defensive avoidance motivations. Although some research has shown that shame, felt rejection, and felt inferiority are distinguishable (see Gausel, Leach, Vignoles, & Brown, 2012; Gausel, Vignoles, & Leach, 2015), other research has shown a high correlation between our personal and social values: if people view themselves as inadequate, they are likely to expect others to view them in a similar negative way, and vice versa (Goss, Gilbert, & Allan, 1994; Leary, Tambor, Terdal, & Downs, 1995). Rather than providing meaningful differentiations between problematic and functional shame, these approaches of ever more customizing the definition of shame can lead to a defining away of the complexity of shame. After all, it is difficult to imagine guilt-free shame or an experience of shame with no sense of inferiority.

Rather than continue to debate whether shame is functional or problematic and continually re-conceptualize shame to suit a position within this debate, it is reasonable to

assimilate the two opposing views. Emotions per se are not dysfunctional, but can become so when experienced intensively, frequently, or inappropriately relative to the situation (Clark & Watson, 1994; Fessler, 1999; Olthof, 2012). Fear, for example, is undoubtedly essential to survival but can also be experienced too intensively, frequently, and disproportionately within the anxiety disorders. If this reasoning is extended to shame, shame can be theorized as a functional emotion that can become problematic under certain circumstances. Challenging the dichotomy of functional guilt and problematic shame, Dost and Yagmurlu (2008) state that "emotions cannot be inherently negative; any emotion can be both adaptive and maladaptive depending on the circumstances" (p. 113). Henniger and Harris (2014) also argue that emotions cannot be classified as good-versus-bad, and that shame is an effective motivator because of, rather than in spite of, the psychological discomfort it induces. Evaluating shame from this standpoint may lead to empirical and theoretical advances that allow researchers and clinicians alike to understand how and why shame, a functional emotion, *can* become problematic, and how problematic shame could be returned to a functional state.

What Determines Whether Shame is Functional or Problematic?

Theoretical accounts of shame suggest that responses to the emotion may play an important role in its functionality. In particular, avoidance in response to shame can be detrimental (Gausel & Leach, 2011; Gilbert, 2000; Muris & Meesters, 2014). In their Secondary Appraisal Model of self-conscious emotions, Muris and Meesters (2014) suggest that shame motivates submissive behavior that functions as a signal of appeasement, but that shame becomes problematic when this response becomes dominant. Their model also suggests that when shame does motivate approach behaviors, such as pro-social behaviors, no psychopathology results. Similarly, Gilbert (2000) argues that shame is adaptive to the extent that it enables individuals to conduct themselves appropriately and abide by rules and norms

but, like other adaptive strategies, can become maladaptive when it perpetuates a cycle of social avoidance and submissive behaviors.

Correspondingly, empirical evidence of shame being associated with problematic outcomes may be confounded with avoidance in response to shame. Most evidence for the negative view of shame comes from studies examining shame-proneness (Gilbert, 2000; Leith & Baumeister, 1998; Lutwak, Panish, Ferrari, & Razzino, 2001; Tangney, 1990, 1992, 1995a, 1995b; Tangney et al., 1992). As discussed earlier (see also Cohen et al., 2011; Giner-Sorolla, Piazza, & Espinosa, 2011; Luyten, Fontaine, & Corveleyn, 2002), this measure operationalizes shame as a negative, self-directed affect coupled with a tendency to withdraw from social interactions and an absence of the desire to repair the situation. Interestingly, it has been suggested that correlations between shame and problematic outcomes are not found when shame measures are free of behavioral avoidance items. Studies have found that shame-proneness was correlated with psychopathologies, such as depression and social dysfunction, whereas situational experiences of shame that do not include behavioral avoidance items were not (Allan, Gilbert, & Goss, 1994). Furthermore, when analyzing correlations between positive and negative shame reactions, it was found that avoidance following shame was negatively correlated with desirable outcomes (e.g., improved health), and positively correlated with undesirable outcomes (e.g., ongoing anger; Harris & Darby, 2009). Although avoidance may be adaptive to the extent that it protects the social self from further damage (de Hooge et al., 2010), habitual avoidance following shameful transgressions is likely to lead to problematic outcomes. Therefore, based on the current research, it seems reasonable to suggest that shame becomes problematic the more it is responded to with avoidance that leaves shame lingering but unaddressed.

As well as behaviorally avoiding the shameful situation, people may also psychologically avoid the shame experience. Participants who were interviewed about their

past experiences of shame recalled trying to avoid the emotional experience by denying, ignoring, and suppressing the feeling, using tactics such as drinking or minimizing the significance of the event (Van Vliet, 2008). Psychologically avoiding shame has implications for psychological health. Despite some theorizing that neglected children are at risk of depression because of shameful experiences in childhood (Bennett, Sullivan, & Lewis, 2010), research has found that it is not shame experiences in themselves that impact depression symptoms, but rather the tendency to cognitively avoid those experiences (Carvalho, Dinis, Pinto-Gouveia, & Estanqueiro, 2015). The avoidance of thoughts associated with shame (e.g., self-critical interpretations of the event accompanied by self-loathing and blame; Jonsson & Segesten, 2004) has also been hypothesized to impede emotional processing of traumatic events, leading to the maintenance of PTSD (Lee, Scragg, & Turner, 2001).

However, reactions to shame are not limited to avoidance, and, in fact, can vary. Although shame is widely defined as an emotion that motivates withdrawal and avoidance behaviors (e.g., Bennett et al., 2010; Covert, Tangney, Maddux, & Heleno, 2003; Tangney & Dearing, 2002), empirical support for this definition is only provided by a handful of studies (Chao, Cheng, & Chiou, 2011; Ferguson, Stegge, & Damhuis, 1991; Frijda, Kuipers, & ter Schure, 1989; Roseman, Wiest, & Swartz, 1994; Sheikh & Janoff-Bulman, 2010). Furthermore, there have been multiple studies that suggest shame can also motivate individuals to approach and repair the situation, as indicated above.

Why might these responses to shame vary? De Hooge and colleagues (2010, 2011) demonstrated that perceived reparability of shame determined whether shamed participants were motivated to repair their social self through approach behaviors or protect their damaged social self through withdrawal behaviors. Participants were given the opportunity to repair induced shame, and told that attempting repair would either have a small or large influence on the outcome. Those who were told their effort to repair would have little

influence were less likely to attempt repair, compared to those who were told it would have a large influence (de Hooge et al., 2010). In a subsequent study, participants higher in shame displayed more approach behavior and higher motivations to protect and repair the social self, compared to those in the control condition. When told that the approach task was difficult, however, this decreased the likelihood of shamed participants choosing this task and their corresponding repair motivations (de Hooge et al., 2011).

A recent meta-analysis by Leach and Cidam (2015) demonstrated that these findings were representative of the broader shame research, in that the opportunity to repair the cause of the shame was the most robust moderator of the relationship between shame and avoidance or approach responses. Specifically, shame had a positive link to approach tendencies (either behaviors or intentions) when failure or social image was more reparable, and a negative link to approach tendencies when failure was less reparable. When this research is considered along with the analysis that avoidance following shame is problematic, it seems likely that shame fulfills a functional role when it leads to approach and repair behaviors, as this facilitates mending the social self. When shame leads to an individual avoiding the shame experience however, shame becomes associated with problematic outcomes (Figure 1.1).

Hence, the research suggests that shame *per se* is not problematic or functional, but it rather depends on how individuals respond to their shame. Avoidance of the shame or shame-eliciting situation is problematic because it leaves the shame essentially unresolved. Whether or not individuals engage in avoidance or approach depends on the perceived reparability of the situation.

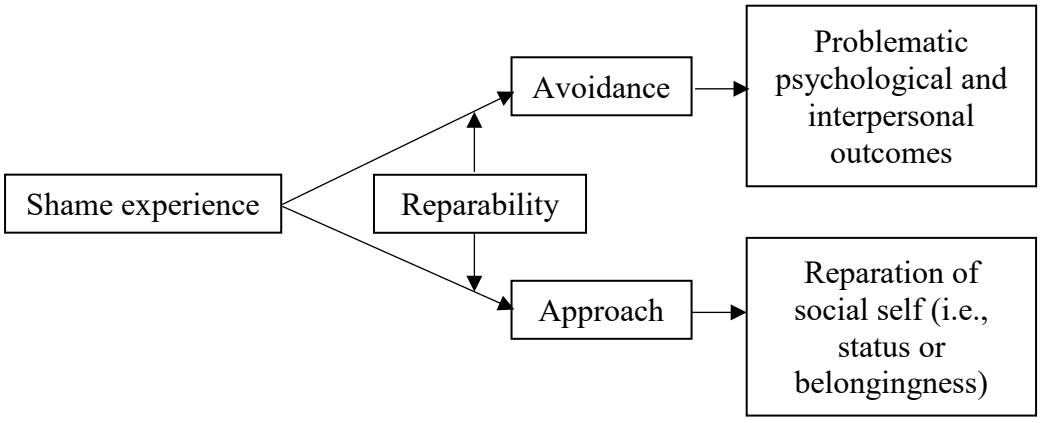

Figure 1.1. Reparability moderates the relationship between shame and subsequent approach or avoidance behaviors (for review see Leach & Cidam, 2015). Subsequently, shame reactions (i.e., approach or avoidance) mediate the relationship between the experience of shame and subsequent outcomes.

What Makes Shame Reparable?

The synthesis of this research leads to the next question, namely what determines whether shame is, or is perceived as, reparable? In their meta-analysis, Leach and Cidam (2015) coded shame as reparable if participants had the *opportunity* to repair the cause (i.e., through self- improvement) or the consequence of their failure (i.e., through pro-sociality or cooperation with those affected). However, it is unclear what determines whether or not an individual will choose an available repair option or, indeed, actively seek out and create opportunities for repair. People can have multiple responses to their emotions, some of which are not determined by which options are available. To return to the example of fear, it has been shown that how a person responds to fear can be determined by intrapersonal factors such as trust and psychopathology (Hare, Frazelle, & Cox, 1978; Parks & Hulbert, 1995). With respect to shame, it would seem crucial that the individual believes the available repair options do not merely undo or compensate for the wrongdoing, but rather possibly restore the individual's social belonging. To an extent, a sense of reparability may be increased by

individuals focusing away from a concern about the self to something more reparable such as a specific behavior – as Tangney and Dearing (2002) have argued. However, given the social functional nature of the emotion, there are likely to be other more social factors that impact on whether or not we see potential to repair our shame.

Perception of Stigma Versus Acceptance by Others

Stigma communicates to those bearing it that others do not consider them worthy or acceptable group members, making shame repair and the restoration of self and social image futile. In contrast, acceptance by others is likely to open up the possibility of shame repair. To the degree that others respect, accept, or love us, they are more likely to display forgiveness, to attribute our negative actions to benign intentions, and act in our best interest (Kearns & Fincham, 2005). This in turn allows us to acknowledge our shame, take responsibility, and attempt repair. Ahmed and Braithwaite (2006) showed that other people's responses (either stigmatizing or respectful) can impact whether individuals acknowledge their shame or not. Specifically, they found that high perceived parental forgiveness and reconciliation fostered the child's ability to acknowledge shame and, in turn, reduced bullying behavior. Similarly, Woodyatt and Wenzel (2013) found that respectful (versus stigmatizing) responses from others led individuals to acknowledge their shame following interpersonal transgressions.

When shame is acknowledged and felt (rather than avoided or displaced through anger or blame: Ahmed et al., 2001; Bessant & Watts, 1995; Braithwaite, Ahmed, Morrison, & Reinhart, 2003; Lewis, 1971), it begins to diminish through reflection, understanding, behavioral change, and reappraisals (Lindstrom, Hamberg, & Johansson, 2011). To the extent that people are able to form meaningful relationships amongst communities of respect (in their lives as well as in the context of transgressions), they are likely to perceive shame as reparable. This is interesting for clinicians because experiences like shame are often treated as individual intrapsychic experiences (see Leary, Raimi, Jongman-Sereno, & Diebels, 2015)

when, in fact, the resolution of these experiences may be an interaction between an individual and the health of their relationships and social identities.

Perception of Self as Malleable and Responding with Compassion

The extent to which we assess ourselves as changeable is likely to influence how reparable the situation is perceived to be. While some view personal qualities (e.g., intelligence, kindness, and creativeness) as changeable during a person's lifetime, others view personal qualities as fixed for life, or that some personal qualities are changeable while others are not (Dweck & Molden, 2005). As a consequence, individuals tend to accept more responsibility for a wrongdoing when the self is presented as malleable rather than fixed (Schumann & Dweck, 2014). In relation to shame, a person may be more likely to make efforts to repair the shameful aspect of themselves (i.e., be more motivated to change themselves for the better) if they believe this shameful aspect is malleable. Thus, self-theories are likely to impact a person's perception of their ability to repair shame.

How accepting an individual is of their own shortcomings and failure is also likely to impact whether the individual will acknowledge and process the shame experience. Just as with acceptance shown by others, the degree to which we are self-stigmatizing versus accepting can impact our perception of the possibility of repair. Indeed, compassionate and accepting responses from others may become internalized as a self-compassionate response (Gilbert & Procter, 2006; Neff & Vonk, 2009). Those who are compassionate to themselves are likely to be more comfortable accepting and admitting failure, compared to those who are not (Breines & Chen, 2012). Self-compassion is likely to aid the repair process, as it has been found to prompt processes that encourage approach, rather than avoidant, behavioral responses (Goetz, Keltner, & Simon-Thomas, 2010). Furthermore, therapies that aim to foster self-compassion and emotional processing have been shown to be helpful for shame processing (Gray et al., 2012; Luoma, Kohlenberg, Hayes, & Fletcher, 2012).

Perceptions of the Impossibility of Repair Because of Conflicting Values

While others' reactions and the individuals' own self-perception may influence their decision to approach or avoid following shame, there are broader contextual factors which may also impact their decisions. Specifically, the social cost that may come with repairing the shame may influence a person's decision to do so or not. As shame arises to signal that some features of the self are less than acceptable to others, repairing shame will often involve costly actions, apologies, or changes to behavior (Gausel et al., 2015).

In some contexts, repairing one set of values may put other relationships or group values in jeopardy. This is likely to be the case when people have multiple social groups with whom they identify, whose norms and values conflict (Hirsh & Kang, 2015). In this instance, it is likely that if a person tries to repair their social bonds in the transgressed group by adhering to the norms of that group, they may inadvertently violate the norms of the conflicting group. For example, service persons may experience an identity conflict if they feel that being a "good" soldier involves doing things misaligned with being a "good" parent, leading to a sense of dissonance and the inability to resolve shame that may arise through adhering to one identity while transgressing the other. Therefore, in situations of identity conflict, repairing shame within one social group would come with an unacceptable cost to identification within another social group, thus making repair actions seem impossible.

Yet, previously mentioned factors, such as self-compassion, could allow for acknowledgement of shame and assist engagement in problem solving strategies. These may include reviewing and prioritizing personal values in order to help the individual act in congruence with their *most* important values (consistent with Acceptance Commitment Therapy: Hayes, Luoma, Bond, Masuda, & Lillis, 2006). If the task of prioritizing is difficult, this in itself may be a helpful observation, as it demonstrates to the individual that adhering to all of their values simultaneously is logically impossible, rather than because of any fault

within themselves that is deserving of shame.

Conclusion

The dichotomy within the current literature makes it clear that shame is not a solely functional or problematic emotion. Rather, it is an emotion that *can* become problematic under certain circumstances, specifically when repairing one's social image after a shameful event is difficult or impossible. In these cases, one is likely to respond with avoidance, through behaviorally avoiding those involved in the shame experience and/or psychologically avoiding the painful feeling of shame. If this analysis is accurate, then establishing what influences the reparability of shame and, importantly, how to encourage individuals to acknowledge and repair their shame experiences will be instrumental in understanding how to return problematic shame back to its functional state. At present, our understanding is that the reparability of shame may involve the ability to acknowledge one's shame, benevolent responses of others, thinking of self as malleable, and responding to one's failures and shortcomings with self-compassion.

However, to further bolster and develop this analysis more targeted research is required, specifically using controlled experimental approaches (of which there are currently too few) that permit conclusions about the causality and uniqueness of shame effects. We also concede that there may be other important moderators that could add to our understanding of the Janus-faced character of shame. For example, the intensity of the shame experience may play a role in that both very low and very high levels of shame are dysfunctional. There may be a "sweet spot" of the right level of shame, potent enough to motivate behavioral change or repair, but not overwhelming and subjectively irreparable. Likewise, it is possible that the frequency of experiencing shame might have a similar curvilinear relationship with its adaptiveness, and the situational appropriateness of shame could also be explored. Toward this goal, experience sampling studies would be beneficial. In

sum, future research should aim for a systematic investigation of the factors that influence the reparability of shame, as well as other factors that may influence shame's functionality. Such efforts will aid in the development of targeted interventions that help individuals and groups harness the functional properties of shame in the direction of personal growth, social cohesion, and moral repair.

CHAPTER 2 – The Influence of Self-Theories on Shame Responses and Psychological Distress

A person's response to their shame is likely to be influenced by how reparable they perceive their shame to be (see Chapter 1; Leach & Cidam, 2015). Those who perceive their shame to be reparable are likely to enact available repair options, leading to desirable outcomes for both their interpersonal connections and intrapersonal well-being. Those who perceive their shame to be challenging or risky to repair, however, are inclined to avoid directly addressing their shame and in turn may miss opportunities to repair interpersonal connections and experience poorer well-being. Therefore, developing our understanding of the factors that influence the reparability of shame is central in building our understanding of how this functional emotion can become problematic. As shame is accompanied by the belief that the self is "bad" or "faulted", a person's belief about the extent to which they can change their perceived faulted self may be an important aspect of whether shame is perceived to be reparable. The first aim of this chapter is to investigate whether a person's perceived malleability of their self-relevant traits influences the relationship between shame and responses to shame. The second aim is to investigate if this perceived malleability influences the relationship between shame and psychological distress. Adjunct to these aims is an investigation of whether the intensity of shame influences responses.

The lay theories that people hold about the changeability of their self-relevant traits are referred to as self-theories (Dweck, 2003). People can generally be divided into two categories: those who believe their traits are fixed, known as *entity theorists* and those who believe their traits are malleable, known as *incremental theorists*. The former would imply a person's traits are fixed throughout their lifetime, while the latter would imply that a person can develop their traits and abilities. When the self-theories of children and adults are assessed, about 40% of people endorse entity theory, 40% endorse incremental theory, and

20% are undecided (Dweck & Molden, 2005). Past research has shown that those who believe their traits are changeable are more likely to seek to amend their deficient traits, while those who believe traits are fixed are more likely to engage defensive self-esteem repair strategies. These beliefs can also be altered — sometimes enduringly (Aronson, Fried, & Good, 2002) — to increase the likelihood of engagement with the problem at hand and improved performance.

Self-Theories Influence Responses to Failure

The tendency for incremental theorists to demonstrate reparation responses and for entity theorists to demonstrate defensive responses has been demonstrated in a range of domains, including academic (Blackwell, Trzesniewski, & Dweck, 2007; Hong, Chiu, Dweck, Lin, & Wan, 1999) and social abilities (Beer, 2002). A longitudinal study by Blackwell et al. (2007) found that 7th and 8th graders who believed intelligence was malleable were more likely to say that they would invest more effort or change their strategy in response to potential failure than were those who believed intelligence was fixed, and that this was associated with greater improvement in mathematics grades over the two year period. Similarly, Hong Kong students who performed poorly on their English proficiency examinations were more likely to take remedial English classes if they believed intelligence was changeable than if they believed intelligence was fixed (Hong et al., 1999). The same patterns are evident in social deficits. Beer (2002) found that shy entity theorists chose activities that made their social skills look good in comparison to another's but not improve, whereas shy incremental theorists chose activities that would guarantee advancements in their learning even if they may be evaluated poorly in the process. They also found that shy entity theorists reported more avoidant social interaction strategies than did shy incremental theorists.

These differences in response styles are also present when self-theories are primed or manipulated. For example, Nussbaum and Dweck (2009) manipulated self-theories using feigned scientific articles and then provided participants with negative feedback following their engagement in an academic task (e.g., speed-reading). Across their three studies, those in the entity belief condition responded to the negative feedback with defensive self-esteem repair (e.g., repeating an already mastered tutorial), while those in the incremental belief condition chose self-improvement (e.g., repeating an unmastered tutorial).

Given this existing body of evidence that suggests self-theories influence a person's response to failure, the current studies seek to examine whether these differing response styles are also evident in how entity and incremental theorists respond to shame. Perhaps entity theorists would be less likely to seek reparation or try to improve their shame-relevant traits and more likely to avoid addressing their shame. On the other hand, incremental theorists may be more likely to directly approach and repair the cause of their shame and less likely to avoid addressing their shame. In turn, entity theorists may be more likely than incremental theorists to experience shame's well-known problematic outcomes.

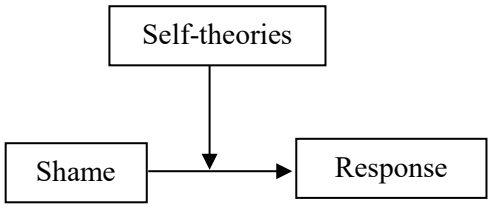

Figure 2.1. Self-theories may moderate the relationship between shame and responses to shame (i.e., approach or avoidance-oriented responses).

Self-Theories and Psychological Distress

Self-theories have already been shown to influence psychological health (Ruvolo & Rotondo, 1998). In a survey study Ruvolo and Rotondo (1998) found that self-theories moderated the relationship between negative self-views (e.g., stubbornness and selfishness)

and psychological well-being (measured using an adapted depression scale). The psychological well-being of those who held entity beliefs was more likely to be affected by negative self-views than those who held incremental beliefs. It can be imagined that those with incremental theories may think, “I am faulted, but I can change”, and in turn be less troubled by their faults than entity theorists who may think, “I am faulted, and always will be”. Given that shame is accompanied by a belief that the self is at fault, it is expected that shame would act similarly to negative self-views. That is, it is expected that shame will be associated with higher psychological distress, but only when entity beliefs are high (and incremental beliefs are low).

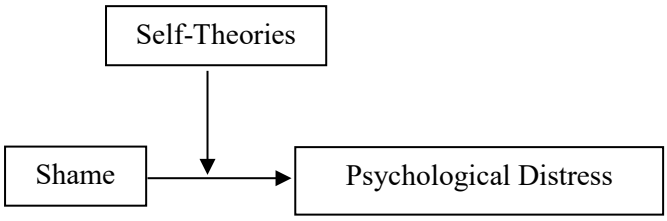

Figure 2.2. Self-theories may moderate the relationship between shame and psychological distress.

Self-Theories as Interventions

If the above model is supported, there is promising precedent for self-theories to be used as an intervention to increase the likelihood of functional responses to shame. Research into self-theories has found that academic interventions that seek to increase incremental beliefs have led to an improvement in academic abilities (Aronson et al., 2002; Blackwell et al., 2007; Good, Aronson, & Inzlicht, 2003). Good et al. (2003) sought to improve the performance of seventh graders who are vulnerable to stereotype threat in academic contexts. Students were allocated to a tutorial group that either endorsed an incremental theory of academic ability, encouraged students to attribute academic difficulty to the new environment, both of these messages, or a control condition. They found that students in the

experimental conditions earned significantly higher reading standardised test scores than students in the control condition. In an experiment with a similar aim, Aronson et al. (2002) randomly allocated participants to a pen pal activity where they were encouraged to either communicate with their pen pal that intelligence was malleable, a control pen pal condition (in which it was communicated that intelligence was multifaceted) or a no pen pal condition. They found that participants in the malleable pen pal condition obtained higher GPA's than participants in the pen pal control and no pen pal condition. If this research were to be applied to shame, it would be expected that increasing incremental beliefs about the shame-relevant domain would lead to reparation of that domain through self-improvement and/or other reparation options and in turn a reduction in shame.

Shame Intensity Could Influence Responses to Failure

Although this chapter will focus on the role that self-theories may play in moderating shame's relationship with responses and psychological distress, this chapter (and following chapters) will also investigate the possibility that the intensity of shame (i.e., whether someone feels low or high levels of shame) influences responses to shame. In other words, I will test whether shame has a curvilinear relationship with avoidance and repair responses. Very low shame may lead to high avoidance (and low repair and self-improvement) due to a lack of motivation or reason to act, while very high shame may also lead to high avoidance (and repair and self-improvement) due to the overpowering emotional experience and inability to effectively problem solve. This would leave a "sweet spot" where shame is at a moderate level to motivate approach and repair without such a task seeming overwhelming. Such a finding would echo the Yerkes-Dodson law: performance increases with arousal as a result of heightened attention and interest, up to a certain point, and thereafter performance declines as arousal increases due to overwhelming anxiety (Yerkes & Dodson, 1908). While there has been uncertainty about what constitutes "arousal", the law has been shown to be

applicable to emotional states, such as anxiety (Kreutzer, DeLuca, & Caplan, 2011). Brehm's (1999) emotional intensity theory also provides support for the suggestion of a curvilinear relationship between shame and responses to shame: emotional intensity interacts with the difficulty of obtaining the relevant goal (termed 'deterrent') on one's motivation to attain the emotion's relevant goal. When deterrents are low, motivation should be low because there is a small amount of effort needed to obtain the goal. As deterrents increase so should motivation, but only up to a point. When deterrents are high, a person's motivation will drop because the goal appears unattainable. As such, it may be that responses to shame are moderated by the intensity of the shame experience.

The Current Research

The main aim of the current studies is to investigate whether self-theories — due to their likely influence on the perceived reparability of shame — influence shame's relationship with avoidance and repair or self-improvement responses and psychological distress. A secondary aim is to test whether shame has a curvilinear relationship with responses. These possibilities will be investigated through four studies. The first study will be a pilot study to ascertain if there is preliminary cross-sectional support for the predictions. The second and third studies will be experimental to allow for casual conclusions and address concerns regarding possible bi-directionality of effects. The fourth study will be a quasi-experiment that seeks to clarify previous results and investigate whether difference in self-theories is associated with differing psychological distress in daily life. Note that entity beliefs and incremental beliefs are two ends of the same scale. As such, in the expression of hypotheses and results, high entity beliefs simultaneously reflect low incremental beliefs and low entity belief simultaneously reflect high incremental beliefs. However, I refer only to high and low entity beliefs for simplicity.

Study 2.1: Pilot

Hypotheses

Hypothesis 1. There will be a significant curvilinear relationship between shame and avoidance motivation, such that both low and high shame will be associated with higher avoidance motivation than moderate shame (i.e., a "U" shaped relationship). The inverse will be true for repair and self-improvement motivations, such that both low and high shame are associated with lower repair and self-improvement motivations than moderate shame (i.e., an inverted "U" shaped relationship).

Hypothesis 2. There will be a negative relationship between perceived reparability and entity beliefs.

Hypothesis 3. Entity beliefs will moderate the relationship between shame and avoidance motivation, such that when entity beliefs are high, shame will have a positive relationship with avoidance motivation, but when entity beliefs are low, shame will have a negative relationship with avoidance motivation.

The inverse will be true for repair and self-improvement motivations, such that when entity beliefs are high, shame will have a negative relationship with repair and self-improvement motivations, but when entity beliefs are low, shame will have a positive relationship with repair and self-improvement motivations.

Hypothesis 4. Entity beliefs will moderate the relationship between shame and psychological distress (i.e., depression, anxiety and stress), such that when entity beliefs are high, shame will have a positive relationship with psychological distress, but when entity beliefs are low, shame will not have a significant relationship with psychological distress.

Method

Participants

Participants were recruited via the Flinders University Research Participation System (N = 127) and Amazon Mechanical Turk (N = 120). After the removal of surveys of participants who did not meet criteria (N = 37), and those who withdrew from the survey (N = 64)[1] there were 143 surveys remaining for analysis. All remaining participants had passed an attention check. Sixty two percent of participants were female, and participants were between 18 and 67 years old (M = 27.60, SD = 10.58).

Procedure and Materials

Data for this pilot study was collected at the same time as Study 3.2. However, as the study included multiple hypotheses, only the results relevant to the current hypotheses are reported in this chapter. Participants first recalled an incident of identity conflict. While identity conflict may make shame more difficult to repair (see Chapter 1) it may also be an antecedent to shame as — by definition — identity conflict is when norms are incompatible between groups. As such, a person who experiences identity conflict must violate a group norm for another group norm to be met. For example, a person who experiences identity conflict between their work and parenting role may have to violate an important norm associated with their "parent" identity (e.g., miss an important event relating to their child) in order to meet a norm associated with their "worker" identity (e.g., staying late to meet a deadline). Given norm violations are a precursor to shame (Fessler & Haley, 2003) identity conflict can result in shame (for more discussion on how identity conflict leads to shame, see Chapter 3).While doing so they also listed the names of the two groups/roles that were latter piped in to relevant questions. Participants then completed the following measures in relation to this pilot study:

Shame. To measure the emotional consequences of instances of identity conflict, participants were asked to, "Think about a time when you have recently experienced a

[1] N = 17 withdrew prior to answering any questions, N = 42 withdrew when asked to describe their identity conflict, and N = 5 withdrew prior to answering any dependent variable questions.

conflict between the groups/roles [piped text] and [piped text]. Mark the degree to which you were experiencing each of the following emotions." Amongst other emotion items, participants were presented with four shame items — ashamed, disgusted with myself, I feel like I can't face myself, and I feel like I want to sink to the ground — and asked to respond on a response scale (1 = *very slightly or not at all* to 5 = *very much*). A shame scale (α = .77) was compiled from an average of the four scores. "Ashamed" was chosen as it captures the lay persons understanding of what shame is, as recommended by Weidman, Steckler, & Tracy (2016) to aid content validity. "Disgusted with myself" was chosen to capture the theoretical perspective of shame as a sense of being "a flawed, damaged or undesired self" (Gilbert, 2003, p. 1220), while "I can't face myself" and "I want to sink to the ground" captures the overwhelming nature of shame as described by Lewis (1971). Furthermore, these items excluded distinct but similar emotions (e.g., regret or guilt; Weidman, Steckler, & Tracy, 2016),behavioural responses (e.g., avoidance), or experiences (e.g., felt rejection and felt inferiority; Gausel & Leach, 2011) that could act as confounds.

Avoidance, repair and self-improvement motivations. To measure how participants responded to their identity conflict, they were asked, "You previously indicated a conflict between the roles/groups [piped text] and [piped text]. When you've been in situations where you experienced the conflict, how well do these statements reflect how you responded?". Participants then completed scales developed by Lickel et al. (2014), designed to measure distancing (e.g., "I wanted to be completely unassociated with the event", α = .84, 3 items), reparation (e.g., "I felt like I should apologise for what happened", α = .78, 3 items) and desire to change the self (e.g., "I felt the urge to be a better person", α = .82, 4 items) motivations in response to shame. Participants rated their agreement with the items on a response scale (1 = *not at all well* to 7 = *very well*). Given that Lickel et al. (2014) described the distancing scale as an operationalisation of a type of avoidance, the distancing scale will

be reported as “avoidance motivation” within the remainder of the thesis. Furthermore, the desire to change the self scale presumably measures a motivation to improve the self, rather than change the self for the worse, so this scale will be reported as “self-improvement motivation” for ease of interpretation. These scales have demonstrated discriminant validity (Lickel et al., 2014).

Perceived reparability. To create a scale that encapsulated the perceived reparability of shame, participants were asked to rate how true statements were that reflected the reparability of their self-image (e.g., “there was irreparable damage to the way I view myself because of the event”) social image (e.g., “the event caused irreparable damage to the way others perceive me”) and reparability of the situation (e.g., “I felt like there wasn’t anything I could do to make the situation better”). These distinctions between various facets of reparability were initially made as others have argued that failure, particularly moral failure, can be associated with either concern for one’s self-image *or* social-image with differing consequences for responses to shame (Gausel & Leach, 2011). Participants rated their responses on a response scale (1 = *very untrue* to 7 = *very true*). A maximum likelihood factor analysis was conducted on the 9 items with oblique rotation (direct oblimin). The Kaiser- Meyer-Olkin measure verified the sampling adequacy (KMO = .83; Hutcheson & Sofroniou, 1999) and all KMO values for individual items were greater than .53 (Field, 2013). Two factors had eigenvalues over Kaiser’s criterion of 1 and in combination explained 65.74% of the variance. The first factor contained 6 items relating to the reparability of self and social-image and the second factor contained 3 items relating to the reparability of the situation. Given shame is theorised to arise from a sense that the self is at fault (damaged self-image; deHooge et al., 2010, 2011) and at risk of losing social bonds and status (damaged social-image; Dickerson, Gruenewald, & Kemeny, 2004), the first factor was perceived as a content-valid measure of the perceived reparability of shame. As such, an average of the 6

items reflecting reparability of self and social image were averaged to create a perceived reparability scale (α = .91). Items were reverse coded such that higher scores represented higher perceived reparability. Table 2.1 presents the factor loadings after rotation.

Depression, Anxiety and Stress Scales 21 (DASS-21). The DASS-21 is a short form of Lovibond and Lovibond's (1995) 42-item self-report measure of depression (e.g., "I couldn't seem to experience any positive feeling at all", .93), anxiety (e.g., "I was aware of dryness in my mouth", α = .85) and stress (e.g., "I found it hard to wind down", α = .89). Participants were asked to what extend various statements applied to them over the past week. This short form of the scale has shown construct validity in a large non-clinical adult population, and each scale shows a common factor of general psychological distress (Henry & Crawford, 2005).

Self-theories. Self-theories were measured using a scale from Dweck et al. (1995), adapted to reflect how changeable a person views themselves to be (rather than others). Participants were asked to rate their agreement with three items: "the kind of person I am cannot be changed very much", "the important parts of who I am cannot really be changed", and "I cannot change aspects of my personality easily" (*α* = .85). Higher scores were indicative of high entity beliefs (i.e., low incremental beliefs), lower scores were indicative of low entity beliefs (i.e., high incremental beliefs).

Attention Check. Participants read the following paragraph:

> *We would like to get a sense of your general preferences. Most modern theories of decision making recognize that decisions do not take place in a vacuum. Individual preferences and knowledge, along with situational variables can greatly impact the decision process. To demonstrate that you've read this much, just go ahead and select both red and green among the alternatives below, no matter what your favourite colour is. Yes, ignore the question below and select both of those options.*

What is your favourite colour?

Two options, “green” and “red” were presented. Only participants who selected both options, as per instructions, passed the attention check.

Table 2.1

Unrotated Factor Loadings, Eigenvalues, and Percentage (%) of Variance Explained Within the Perceived Reparability Scale

Item	Factor Loading	
People will always view me less favourably because of the event (RC)	**.84**	.03
Other people will always view me negatively because of what happened (RC)	**.83**	.03
There was irreparable damage to the way I view myself because of the event (RC)	**.83**	.07
The event caused irreparable damage to the way others perceived me (RC)	**.78**	.11
I will always view myself less favourably because of the event (RC)	**.77**	-.05
I will always view myself as inferior to others because of what happened (RC)	**.72**	-.08
The situation was difficult to repair (RC)	.15	**.69**
It was easy to fix the situation	-.12	**.54**
I felt like there wasn't anything I could do to make the situation better (RC)	.14	**.42**
Eigenvalue	4.52	1.40
% of variance	50.18%	15.56%

Note. RC = reverse coded.

Results

Statistical Approach

Hierarchical regressions were used to test curvilinear relationships (Hypothesis 1). Following recommendations by Aiken and West (1991), the predictor (shame) was centred prior to calculating the quadratic term. In the first step the dependent variable (avoidance, repair or self-improvement motivation) was regressed onto shame to test the linear relationship. In the second step the quadratic term of shame was entered into the model. Pearson correlations were used to test associations between two variables (Hypothesis 2). To test moderation hypotheses (Hypotheses 3 and 4) Model 1 of the PROCESS macro (Hayes, 2013) was applied with 5000 bootstrapped samples and centred predictor variables (Aiken & West, 1991). Table 2.2 provides a summary of the descriptive statistics and intercorrelations between key variables.

Table 2.2

Summary of Intercorrelations, Means, Standard Deviations and Ranges for Key Variables

	M(SD)	Range	1	2	3	4	5	6	7	8	9
1. Shame	1.87 (.92)	1-5	-	-.04	-.63**	.54**	.38**	.47**	.45**	.49**	.39**
2. Entity beliefs	3.62 (1.28)	1-6	-	-	-.08	.08	< .01	.06	.18*	.26**	.31**
3. Reparability	5.43 (1.35)	1-7	-	-	-	-.50**	-.31**	-.42**	-.43**	-.51**	-.42**
4. Avoidance	3.24 (1.73)	1-7	-	-	-	-	.46**	.47**	.31**	.42**	.33**
5. Repair	3.99 (1.63)	1-7	-	-	-	-	-	.61**	.11	.19*	.20*
6. Self-improvement	3.64 (1.56)	1-7	-	-	-	-	-	-	.26**	.31**	.29**
7. Depression	5.32 (5.33)	0-21	-	-	-	-	-	-	-	.83**	.83**
8. Anxiety	4.53 (4.91)	0-21	-	-	-	-	-	-	-	-	.81**
9. Stress	7.38 (5.66)	0-21	-	-	-	-	-	-	-	-	-

Note. ** Correlation is significant at the .01 level (2-tailed). * Correlation is significant at the .05 level (2-tailed).

Hypothesis 1. Curvilinear Relationship Between Shame and Avoidance and Repair Motivations

Shame had a significant curvilinear relationship with repair and self-improvement motivations that aligned with the hypotheses (see Table 2.3). When shame was low, it had a positive relationship with repair motivation (B = 1.43) and self-improvement motivation (B = 1.53), when shame was high these relationships were smaller (repair B = .43; self-improvement B = .80; see Figures 2.3 and 2.4). Although the hypothesis predicted that the latter relationships would be negative, a decrease in the size of a positive relationship is still somewhat aligned with predictions. Shame also had a similar curvilinear relationship with avoidance motivation (see Table 2.5), however this was not in the hypothesised "U" shape (see Figure 3.7). When shame was low (i.e., 1 SD below the mean) it had a positive relationship with avoidance motivation (B = 1.95), when shame was high (i.e., 1 SD above the mean) this relationship was smaller (B = .71). Taken together these results suggest that the positive correlations between shame and avoidance, repair and self-improvement motivations become smaller as shame increases.

Table 2.3

Results of Hierarchical Regression Analyses Testing Shame's Linear and Curvilinear Relationships with Avoidance, Repair and Self-Improvement Motivations

	B	SE_B	β	p	$CI_{95\%}$
Avoidance Motivation					
Step 1		$R^2 = .29$, F (1, 141) = 58.52, $p < .001$			
(Constant)	3.24	.122		< .001	[3.00, 3.48]
Shame	1.01	.132	.54	< .001	[.75, 1.27]
Step 2		$\Delta R^2 = .03$, ΔF (1, 140) = 6.79, $p = .010$			
(Constant)	3.50	.156		< .001	[3.20, 3.81]

Shame	1.33	.179	.71	< .001	[.98, 1.69]
Shame^2	-.31	.117	-.25	.010	[-.54, -.07]
Repair Motivation					
Step 1		$R^2 = .15$, F (1, 141) = 24.23, $p < .001$			
(Constant)	3.99	.126		< .001	[3.74, 4.24]
Shame	.68	.137	.38	< .001	[.40, .95]
Step 2		$\Delta R^2 = .02$, ΔF (1, 140) = 3.98, $p = .048$			
(Constant)	4.19	.163		< .001	[3.87, 4.52]
Shame	.93	.188	.529	< .001	[.56, 1.30]
Shame^2	-.25	.123	-.21	.048	[-.49, -.01]
Self-Improvement Motivation					
Step 1		$R^2 = .22$, F (1, 141) = 40.18, $p < .001$			
(Constant)	3.64	.116		<. 001	[3.42; 3.87]
Shame	.79	.125	.47	< .001	[.54; 1.04]
Step 2		$\Delta R^2 = .05$, ΔF (1, 140) = 10.56, $p = .001$			
(Constant)	3.95	.146		< .001	[3.66; 4.23]
Shame	1.17	.168	.69	< .001	[.84; 1.50]
Shame^2	-.36	.110	-.32	.001	[-.57; -.14]

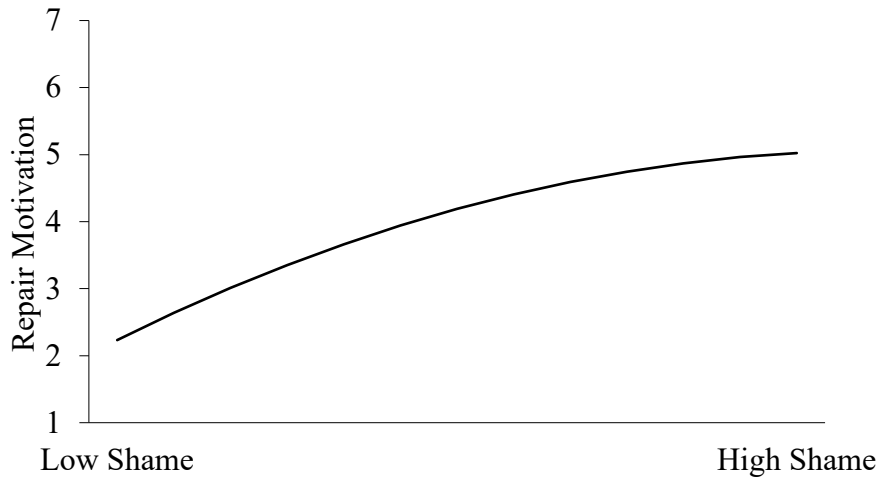

Figure 2.3. *Curvilinear relationship between shame and repair motivation.*

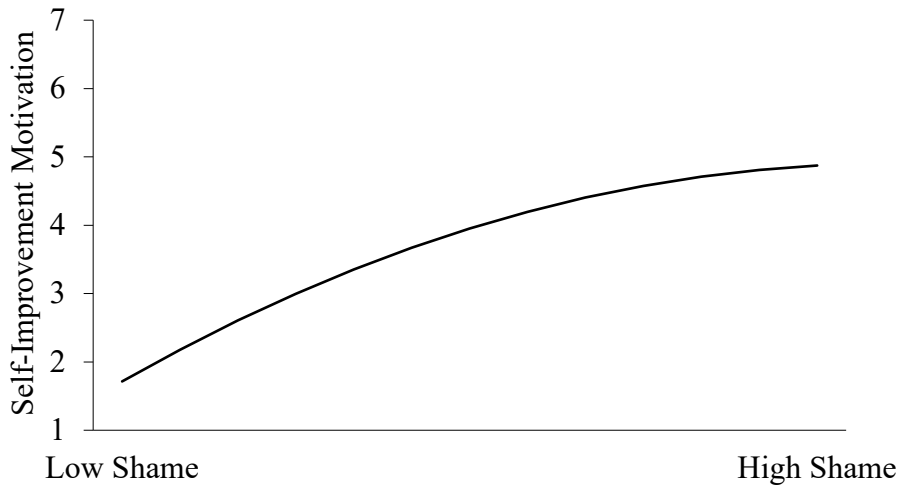

Figure 2.4. *Curvilinear relationship between shame and self-improvement motivation.*

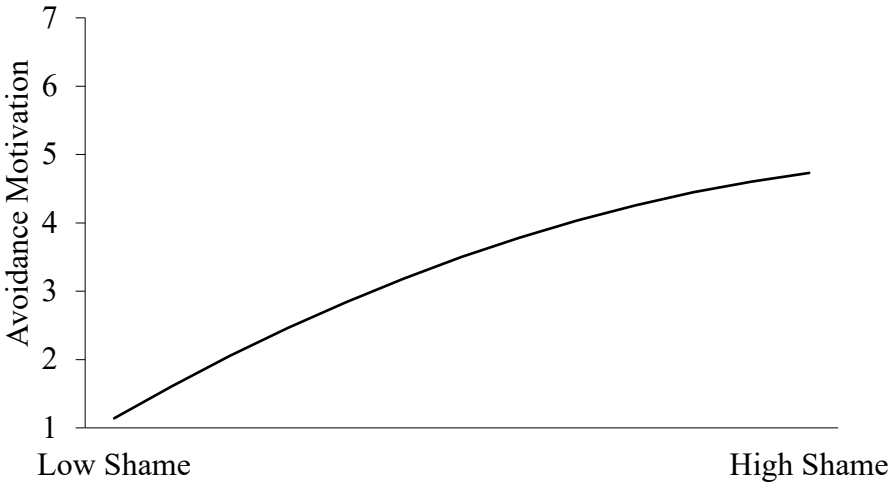

Figure 2.5. *Curvilinear relationship between shame and avoidance motivation.*

Hypothesis 2. Correlation Between Entity Beliefs and Reparability

Contrary to the hypothesis, there was not a significant relationship between perceived reparability and entity beliefs (see Table 2.2).

Hypothesis 3. Moderating Effect of Entity Beliefs on Relationship Between Shame and Avoidance, Repair and Self-Improvement Motivations

Table 2.4 provides a summary of the regression models testing whether entity beliefs moderated the relationship between shame and avoidance, repair or self-improvement motivations. Contrary to the hypothesis, there was no evidence of entity beliefs moderating

the relationship between shame and repair or self-improvement motivations. However, aligned with the hypothesis, there was a significant interaction between shame and entity beliefs on avoidance motivation: the significant positive relationship between shame and avoidance motivation was larger when entity beliefs were high, $B = 1.45$, $t(138) = 6.48$, $p < .001$, $SE = .224$, $CI_{95\%}$ [1.01, 1.89], compared to low, $B = .74$, $t(138) = 4.34$, $p < .001$, $SE = .171$, $CI_{95\%}$ [.40, 1.08], see Figure 2.6. While the hypothesis predicted that the latter simple effect would be negative, a decrease in the strength of the positive relationship between shame and avoidance motivation when entity beliefs are low compared to high aligns with the theorising that the positive relationship between shame and avoidance motivation would become smaller as entity beliefs decreased.

Overall the results suggest that shame has a positive relationship with avoidance, repair and self-improvement motivations, but that when entity beliefs are high, the relationship between shame and avoidance motivation is larger than when entity beliefs are low.

Table 2.4

Results of Hierarchical Regression Analyses Predicting Avoidance, Repair, and Self-Improvement Motivations with Shame, Entity Beliefs and Their Two-Way Interaction

	B	SE_B	*t*	*p*	$CI_{95\%}$
Avoidance Motivation	$R^2 = .33$, $F = 22.52$, $p < .001$, $\Delta R^2 = .03$, $\Delta F = 5.80$, $p = .017$				
Constant	3.24	.120	27.04	< .001	[3.00, 3.48]
Shame	1.09	.134	8.15	< .001	[.82, 1.36]
Entity Beliefs	.18	.096	1.85	.066	[-.01, .37]
Shame × Entity Beliefs	.28	.115	2.41	.017	[.04, .50]
Repair Motivation	$R^2 = .16$, $F = 8.71$, $p < .001$, $\Delta R^2 = .01$, $\Delta F = 2.15$, $p = .144$				
Constant	3.99	.127	31.34	< .001	[3.74, 4.24]

Shame	.73	.143	5.11	< .001	[.45, 1.01]
Entity Beliefs	.05	.102	.53	.594	[-.15, .26]
Shame × Entity Beliefs	.18	.122	1.47	.144	[-.06, .42]
Self-improvement Motivation	$R^2 = .23$, $F = 13.67$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .67$, $p = .416$				
Constant	3.63	.116	31.29	< .001	[3.41, 3.86]
Shame	.82	.130	6.30	< .001	[.56, 1.07]
Entity Beliefs	.11	.093	1.21	.230	[-.07, .30]
Shame × Entity Beliefs	.09	.111	.82	.416	[-.13, .31]

Note. Overall model $df = 3, 138$. Interaction $df = 1, 138$. ΔR^2 represents increase in R^2 because of the interaction.

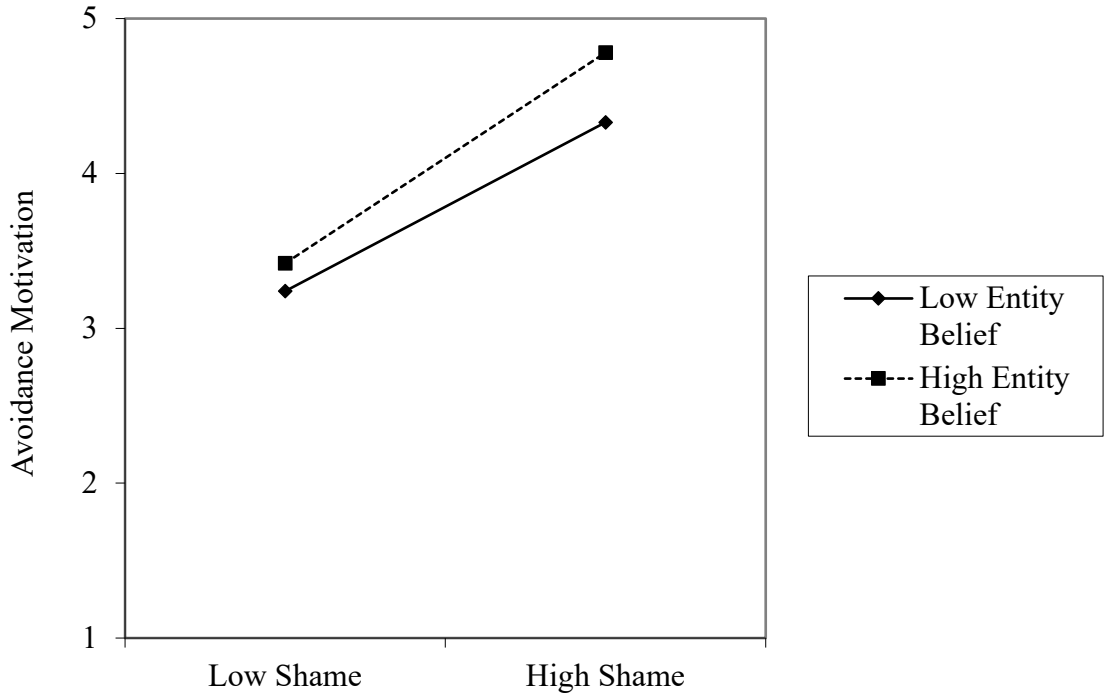

Figure 2.6. Interaction between Shame and Entity Beliefs on Avoidance Motivation.

Hypothesis 4. Moderating Effect of Entity Beliefs on Relationship Between Shame and Psychological Distress

Table 2.5 provides a summary of the regression models testing whether entity beliefs moderated the relationship between shame and psychological distress (i.e., depression,

anxiety, stress). Contrary to the hypothesis, shame and entity beliefs did not interact to predict psychological distress. They both had significant positive main effects on all psychological distress variables.

Table 2.5

Results of Hierarchical Regression Analyses Predicting Psychological Distress with Shame, Entity Beliefs and Their Two-Way Interaction

	B	SE_B	*t*	*p*	$CI_{95\%}$
Depression	$R^2 = .24$, $F = 14.89$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .09$, $p = .762$				
Constant	5.31	.393	13.49	< .001	[4.53, 6.09]
Shame	2.62	.442	5.93	< .001	[1.74, 3.49]
Entity Beliefs	.80	.315	2.53	.013	[.17, 1.42]
Shame × Entity Beliefs	-.11	.377	-.30	.762	[-.86, .63]
Anxiety	$R^2 = .33$, $F = 22.82$, $p < .001$, $\Delta R^2 = .01$, $\Delta F = 2.72$, $p = .101$				
Constant	4.55	.341	13.35	< .001	[3.88, 5.23]
Shame	2.84	.383	7.41	< .001	[2.08, 3.59]
Entity Beliefs	1.15	.273	4.21	< .001	[.61, 1.69]
Shame × Entity Beliefs	.54	.327	1.65	.101	[-.11, 1.19]
Stress	$R^2 = .26$, $F = 15.86$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .29$, $p = .590$				
Constant	7.39	.416	17.79	< .001	[6.57, 8.22]
Shame	2.53	.466	5.43	< .001	[1.61, 3.45]
Entity Beliefs	1.46	.332	4.40	< .001	[.80, 2.12]
Shame × Entity Beliefs	.21	.397	.54	.590	[-.57, 1.00]

Note. Overall model $df = 3, 137$. Interaction $df = 1, 137$. ΔR^2 represents increase in R^2 because of the interaction.

Discussion

Aligned with predictions, these results suggest that shame has a curvilinear relationship with repair and self-improvement motivations. Although, the similar curvilinear

relationship between shame and avoidance motivation was unpredicted. The finding of the same curvilinear pattern for both repair and avoidance, that is, theoretically opposite responses, raises doubts about the theoretical meaning of the findings. It is possible that the curvilinear relationships are an empirical artefact; perhaps shame experiences contain a psychological threshold above which any further increase in shame is no longer consequential. However, it is also important to note that the assumed opposition of repair and avoidance was also not empirically borne out, as both were positively correlated. Previous research has shown repair and avoidance motivation — as measured in the current study — are not significantly correlated (Lickel et al., 2014). However, approach and avoidance motivations can co-occur at times, as avoiding threats and obtaining incentives are distinct motivational systems (Gable & Gosnell, 2013; Nikitin & Freund, 2009). This may be particularly likely in the context of the current study — social identity conflict — given a person may be motivated to repair the damage caused to the wronged-identity but also avoidant of transgressing the conflicting identity. As such, studies within broader transgression contexts would be useful to determine if this positive correlation is context-specific or a broader phenomenon (e.g., whether shame motivates simultaneous repair and avoidance across a range of scenarios). Gausel and Leach (2011) theorise that when moral failure leads to an appraisal of a specific self-deficit shame arises with an associated motivation to self-improve, whereas when the self-deficit is perceived to be global or when the main concern is others condemnation, the resulting motivation is one of avoidance. Endeavouring to capture a wholistic concept of shame, I did not measure these various appraisals separately within the current study. As such, it may be that the combination of these appraisals (i.e., concern for self-image and others' views) is responsible for the paradoxical co-occurrence of approach and avoidance motivations. Aligned with predictions, self-theories moderated the relationship between shame and avoidance motivation: when

entity beliefs were high, the positive relationship between shame and avoidance was larger than when entity beliefs were low. However, contrary to predictions, self-theories did not moderate the relationship between shame and repair or self-improvement motivations, nor psychological distress (i.e., depression, anxiety, stress). Furthermore, self-theories were not associated with the perceived reparability of self and social-image.

The finding that entity beliefs moderate the relationship between shame and avoidance but not shame and other motivations (i.e., repair and self-improvement) is at odds with past research. Both theory (Dweck, 1999) and past studies (e.g., Nussbaum & Dweck, 2009) indicate that self-theories influence a person's motivation to improve their abilities in the failed domain. A possible explanation is the context in which self-theories were examined in the current study. Previous studies investigated the influence of self-theories in the context of how people respond to clear and discrete failures in specific domains (e.g., performing poorly on a test). However, to the best of my knowledge, this was the first study to investigate the influence of self-theories on responses to identity conflict. Identity conflict scenarios differ from discrete failures in that identity conflicts involve a failure to adhere to self-relevant norms, rather than a failure in a discrete task. While the former could be construed as a moral failure (e.g., missing an important family occasion due to work) the latter is more likely to be a performance failure (e.g., scoring poorly on a test). Entity beliefs may influence the perceived reparability of moral failures to a lesser extent than performance failures. While performance failures may be construed as a lack of *ability* to perform well (and in turn influenced by the malleability of the self), moral failures may instead be construed as a lack of *willingness* to act morally (and in turn perceived as situationally influenced by attitudes rather than the malleability of traits). This may also explain the lack of relationship between entity beliefs and perceived reparability, as well as the lack of interaction between shame and entity beliefs on psychological distress.

Although past research has investigated the influence of self-theories on moral behaviour, it has focused on the influence on the perceived malleability of *other's* traits and on the participants' willingness to trust the transgressor again (e.g., Haselhuhn, Schweitzer, & Wood, 2010), rather than on how a person responds to their own moral failings. This lack of research into the influence of self-theories (relating to the changeability of one's own traits rather than another's traits) on responses to moral failures provide further reason to investigate the influence of self-theories on the relationship between shame and responses in a context beyond social identity conflict.

An experimental investigation was in turn designed to investigate shame's relationship with repair and avoidance motivations outside of the context of social identity conflict and address the possible explanation that self-theories differentially influence responses to shame arising from performance versus moral failures. Furthermore, the current study is cross-sectional and in turn bi-directionality is possible; it may be that entity theorists are more likely to experience shame in response to wrong-doing and in turn more motivated to avoid in response to shame than incremental theorists. In turn, an experimental study would be useful to draw causal conclusions.

Study 2.2

To examine the generalisability of results across different contexts and forms of failings and to allow for casual conclusions, Study 2.2 is an experimental study in which self-theories are manipulated and shame is induced using a hypothetical performance or moral failure. The same hypotheses were tested as in Study 2.1, with the addition of an exploratory investigation of the influence of the domain of failure (i.e., moral or performance) in order to investigate the possible alternative explanation to the previous findings that self-theories do not influence the perceived reparability of moral failures. Based on the shame literature, the domain of the failure (i.e., performance or moral) does not appear to have a large influence

on responses to shame. Leach and Cidam's (2015) meta-analysis found that when failure was reparable, shame had a positive relationship with approach following both moral and performance failures (there was an insufficient number of studies for the meta-analysis to investigate the influence of domain when failure was less reparable). As such, shame domain was included in the current study as an exploratory manipulation.

Hypotheses

Hypothesis 1. There will be a curvilinear relationship between shame and avoidance motivation, such that both low and high shame will be associated with higher avoidance motivation than moderate shame (i.e., a "U" shaped relationship). The inverse will be true for repair and self-improvement motivations, such that both low and high shame are associated with lower repair and self-improvement motivations than moderate shame (i.e., an inverted "U" shaped relationship).

Hypothesis 2. Self-theory condition will moderate the relationship between shame severity condition and avoidance motivation, such that in the entity belief condition, avoidance motivation will be higher in the high shame severity condition than in the low shame severity condition, and in the incremental belief condition avoidance motivation will be lower in the high shame severity condition than in the low shame severity condition.

The inverse will be true for repair and self-improvement motivations, such that in the entity belief condition, repair and self-improvement motivations will be lower in the high shame severity condition than in the low shame severity condition, and in the incremental belief condition repair and self-improvement motivations will be higher in the high shame severity condition than in the low shame severity condition.

There will also be exploratory analyses regarding effect of shame domain (i.e., moral vs. performance) on responses to shame.

Method

Participants

Two hundred participants recruited through Amazon Mechanical Turk. After removing incomplete surveys ($N = 2$) and surveys that included failed attention checks ($N = 4$; wording of attention check detailed in Study 2.1), the final sample consisted of 194 participants (60% female), ranging from 18 to 77 years of age ($M = 36.12$, $SD = 12.18$).

Statistical Power

A sensitivity analysis was conducted using the GPower software package (Faul & Erdfelder, 1992). Based on a 7 predictor variable equation as a baseline, with alpha set at .05 and 194 participants, the analysis suggested that there was adequate power (.80) to detect an R^2 of .04, a small to medium effect.

Design

The study had a 2 (self-theory: entity, incremental) × 2 (shame type: high, low) × 2 (shame domain: moral, performance) experimental design.

Procedure and Materials

Demographics. Participants were asked their age in years and their sex.

Self-theory manipulation. Participants were then randomly allocated to either the incremental or entity belief condition. Adapted from Miller et al. (2007), participants were presented with a feigned online news article that either depicted personal characteristics as fixed (representing entity beliefs) or changeable (representing incremental beliefs; appendix A).

Shame manipulation. Next, participants were presented with hypothetical scenarios in which they were asked to imagine they had either committed a moral or performance transgression. Within the moral shame condition, participants read that they had either accidently forgotten a friend's birthday party (low moral shame) or purposefully avoided a

friend's birthday party and boasted about it in a group message which the friend saw (high moral shame). Within the performance shame condition, based on the procedure used by (de Hooge et al., 2010) participants read that they either performed poorly during an oral presentation (high performance shame) or that they had performed equitably to the rest of the class (low performance shame; see appendix B for scenarios).

As per the instruments used in Study 2.1, participants then rated their motivation to avoid the situation (4 items, $\alpha = .91$), repair the situation (3 items, $\alpha = .83$) and change themselves (3 items, $\alpha = .92$). Given shame and entity beliefs were manipulated in the current study, the shame measure (4 items, $\alpha = .94$) and entity belief measure (4 items, $\alpha = .94$) used in Study 2.1 became the manipulation checks within this study.

Results

Statistical Approach

To test curvilinear relationships (Hypothesis 1), the predictor (shame) was centred prior to calculating the quadratic term. In the first step the dependent variable was regressed onto shame to test the linear relationship. In the second step the quadratic term of shame was entered into the model (Aiken & West, 1991). To test interactions (Hypothesis 2) and the influence of shame domain, a 2 (self-theory: entity, incremental) × 2 (shame severity: high, low) × 2 (shame domain: moral, performance) ANOVA was performed on the outcome variable (i.e., avoidance motivation). As statistical assumptions were met for the tests of avoidance motivation, this ANOVA was sufficient to test the relevant hypothesis. However, preliminary examination showed that the homogeneity of variances assumption was violated as indicated by Levene's test for equality of variances for both repair motivation, $F(7, 181) = 3.35$, $p = .002$, and self-improvement motivation, $F(7, 181) = 2.71$, $p = .011$. Inspection of the repair and self-improvement motivation histograms for each of the cells also showed violation of the assumption of normality across several cells. Due to the violation of these

distributional assumptions, the standard factorial ANOVA was not appropriate. Instead, a moderated multiple regression analysis[2] was undertaken using bootstrapped confidence intervals to test the effects of each factor and their interactions on repair and self-improvement motivations. The regression coefficient for each individual factor represents the difference between means for the two levels of the respective factor, and a test of it is equivalent to a test of a main effect. Similarly, the regression coefficient for each product term in the analysis represents a difference between differences, and a test of it is equivalent to a test of the respective interaction. For the regression analysis each of the factors was mean centred prior to analysis as recommended by Aiken and West (1991). Coding for dichotomous variables were as follows: self-theory (-1 incremental belief condition, +1 entity belief condition), shame severity (-1 low shame severity condition, +1 high shame severity condition), domain (-1 moral condition, +1 performance condition). Table 2.6 provides a summary of the descriptive statistics and intercorrelations between key variables.

[2] Although SPSS offers bootstrapped estimates for factorial ANOVA, these are only for the means and standard deviations and not for the tests of main effects and interactions. To use bootstrapping to test the main effects and interactions, moderated multiple regression can be used since the parameter estimates of each variable/factor represent the main effects and interactions (i.e., for product terms of the variables/factors). The two commands are equivalent but provide bootstrap estimates on different parameters. As such, bootstrapped moderated multiple regression analysis in SPSS was used to test the main effects and interactions and bootstrapped means and standard deviations were obtained from the GLM command in SPSS.

Table 2.6

Summary of Intercorrelations, Means, Standard Deviations and Ranges for Key Variables

	M(SD)	Range	1	2	3	4	5
1. Shame	2.95 (1.44)	1-5	-	.07	.70**	.64**	.70**
2. Entity beliefs	3.75 (1.66)	1-7	-	-	.06	-.07	-.03
3. Avoidance	2.86 (1.29)	1-5	-	-	-	.36**	.64**
4. Repair	3.49 (1.17)	1-5	-	-	-	-	.62**
5. Self-improvement	3.09 (1.19)	1-5	-	-	-	-	-

Note. **Correlation is significant at the .01 level (2-tailed) *Correlation is significant at the .05 level (2-tailed).

Manipulation Checks

Shame. Independent-samples t-tests demonstrated that the shame manipulation had the desired effect. Participants in the high moral shame condition reported feeling significantly more shame ($M = 4.09$, $SD = .83$) than participants in the low moral shame condition ($M = 2.43$, $SD = 1.12$), $t(93) = 7.82$, $p < .001$, $d = 1.59$. Participants in the high performance shame condition ($M = 3.75$, $SD = 1.13$) also reported feeling significantly more shame than participants in the low performance shame condition ($M = 1.41$, $SD = .69$), $t(97) = 12.55$, $p < .001$, $d = 2.80$. It should be noted that participants in the low moral shame condition reported significantly higher shame ($M = 2.43$, $SD = 1.12$) than the participants in the low performance shame condition ($M = 1.41$, $SD = .69$), $t(89) = 5.37$, $p < .001$, $d = 1.42$. This represents a confound in the study in that group differences found between the low moral and low performance shame condition may be due to differing levels of shame, rather than differing domains of shame. There was no statistically significant difference between the high moral and high performance conditions in reported levels of shame, $t(96) = 1.52$, $p = .133$, $d = .34$.

Self-theories. An independent samples t-test demonstrated that participants in the entity belief condition reported significantly higher entity beliefs (M = 4.17, SD = 1.49) than participants in the incremental belief condition (M = 3.32, SD = 1.72), $t(192) = -3.65$, $p < .001$, $d = .53$.

Hypothesis 1. Curvilinear Relationship Between Shame and Avoidance, Repair and Self-Improvement Motivations

Contrary to the hypothesis, there was no evidence of a curvilinear relationship between shame and avoidance or self-improvement motivations (see Table 2.7). However, there was a significant curvilinear relationship between shame and repair motivation: when shame was low (1 SD below the mean) it had a positive relationship with repair motivation (B = .79*)* whereas when shame was high (1 SD above the mean) this positive relationship was smaller (B = .23; see Figure 2.7). The hypothesis predicted that the latter relationship would be negative, however, the smaller positive relationship suggests that the positive relationship between shame and repair decreases in size as shame increases.

Table 2.7

Results of Hierarchical Regression Analyses Predicting Avoidance, Repair and Self-Improvement Motivations with Shame and Shame Squared

	B	SE_B	β	p	$CI_{95\%}$
Avoidance Motivation					
Step 1		$R^2 = .50$, $F(1, 185) = 182.09$, $p < .001$			
(Constant)	2.84	.067		< .001	[2.71, 2.97]
Shame	.63	.047	.70	< .001	[.54, .73]
Step 2		$\Delta R^2 = .00$, $\Delta F(1, 184) = .85$, $p = .358$			
(Constant)	2.76	.112		< .001	[2.54, 2.98]
Shame	.64	.047	.71	< .001	[.54, .73]

Shame^2	-.04	.044	-.05	.358	[-.05, .13]
Repair Motivation					
Step 1		$R^2 = .41$, F (1, 187) = 127.78, $p < .001$			
(Constant)	3.48	.066		< .001	[3.35, 3.61]
Shame	.52	.046	.64	< .001	[.42, .61]
Step 2		$\Delta R^2 = .03$, ΔF (1, 186) = 11.13, $p = .001$			
(Constant)	3.77	.108		< .001	[3.56, 3.98]
Shame	.51	.045	.63	< .001	[.42, .60]
Shame^2	-.14	.042	-.18	.001	[-.22, -.06]
Self-Improvement Motivation					
Step 1		$R^2 = .49$, F (1, 187) = 178.18, $p < .001$			
(Constant)	2.06	.102		< .001	[2.96, 3.21]
Shame	.10	.007	.69	< .001	[.49, .66]
Step 2		$\Delta R^2 < .01$, ΔF (1, 186) = .00, $p = .924$			
(Constant)	3.07	.104		< .001	[2.87, 3.28]
Shame	.58	.043	.70	< .001	[.49, .66]
Shame^2	.00	.040	.01	.924	[-.08, .08]

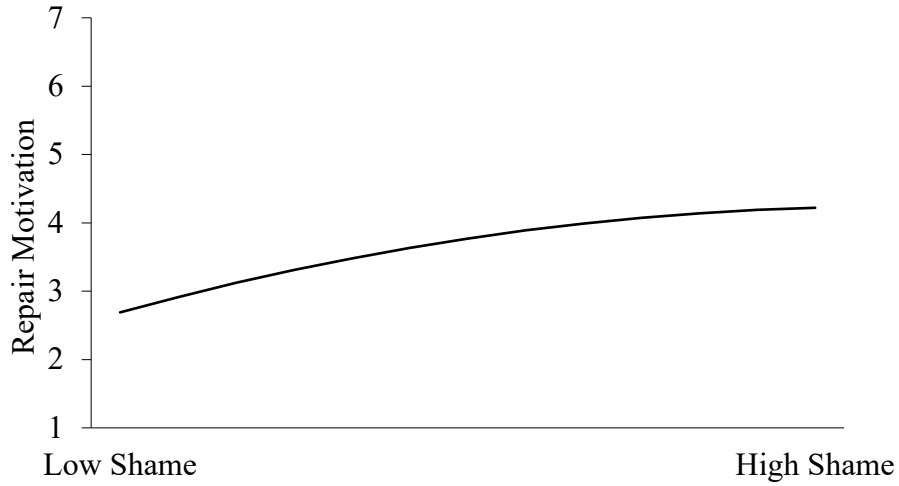

Figure 2.7. Curvilinear relationship between shame and repair motivation.

Hypothesis 2a. Moderating Effect of Self-Theory on Relationship Between Shame and Avoidance Motivation

There was a significant three-way interaction between self-theory condition, shame severity condition and shame domain condition on avoidance motivation (see Table 2.8 and Figure 2.8). Simple two-way interactions revealed that the interaction between self-theory condition and shame severity condition for performance shame approached significance, B = .20, SE = .108, p = .065, $CI_{95\%}$ [-.01; .41], and was not significant for moral shame, B = -.10, SE = .107, p = .333, $CI_{95\%}$ [-.31; .11]. Given there was no significant interaction between shame and self-theory condition, the hypothesis was not supported. There was an unexpected two-way interaction between shame severity and shame domain such that in the performance condition (see Figure 2.9).

Table 2.8

Inferential Statistics and Effect Size (Partial Eta^2) as a Function of Shame Domain Condition, Shame Severity Condition and Self-Theory Condition on Avoidance Motivation

Predictor	$F(1, 179)$	p	η_p^2
Self-Theory	.12	. 727	.001
Shame Severity	100.43	< .001	.359
Shame Domain	1.57	.211	.009
Self-Theory × Shame Severity	0.41	.524	.002
Self-Theory × Shame Domain	1.00	.319	.006
Shame Severity × Shame Domain	4.73	.031	.026
Self-Theory × Shame Severity × Shame Domain	4.01	.047	.022

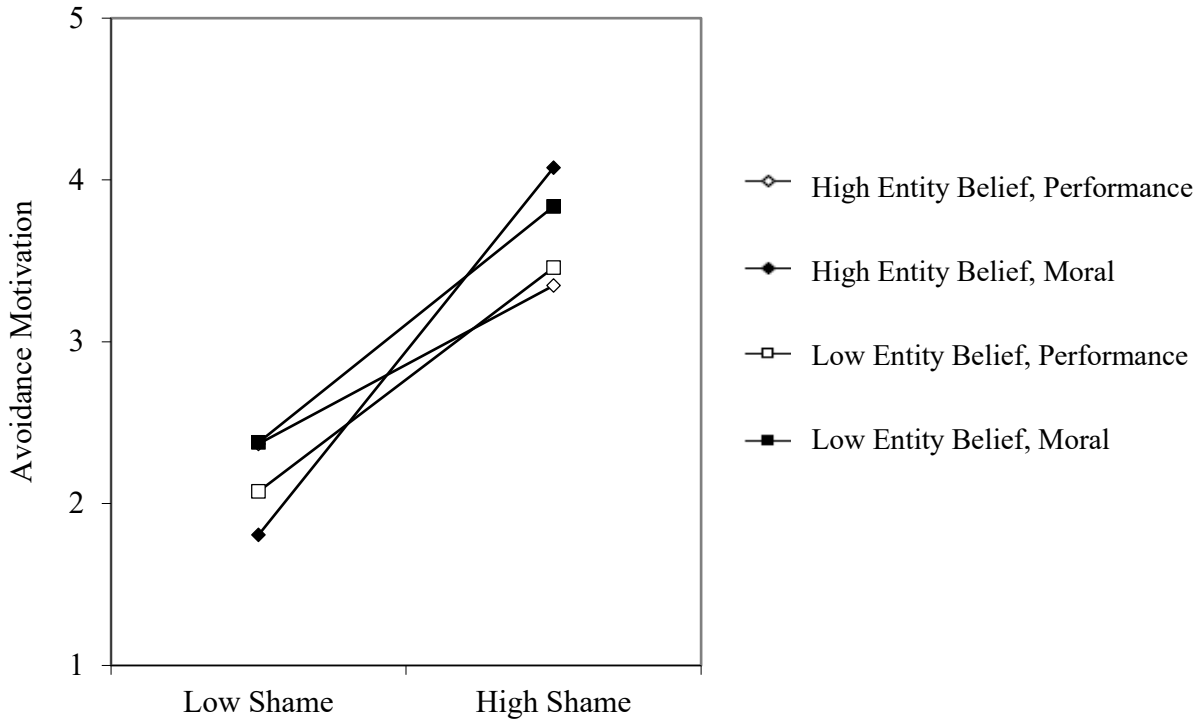

Figure 2.8. Three-way interaction between shame severity, self-theory and shame domain on avoidance motivation.

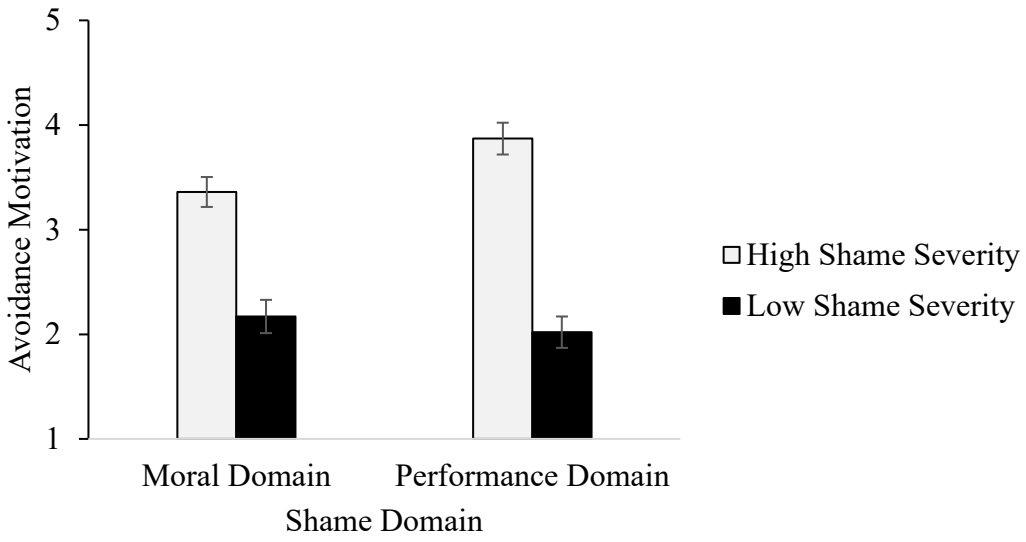

Figure 2.9. Interaction between shame severity and shame domain on avoidance motivation. Standard errors are represented in the figure by the error bars attached to each column.

Hypothesis 2b. Moderating Effect of Self-Theory on Relationship Between Shame and Repair Motivation

The three-way interaction between shame severity, self-theory and domain conditions on repair motivation was not significant, and contrary to the hypothesis there was not a significant interaction between self-theory condition and shame severity condition on repair motivation (see Table 2.9). However, there was an unexpected significant two-way interaction between shame domain condition and shame severity condition (see Figure 2.10). The simple main effect of shame severity was statistically significant for performance shame, B = .68, SE = .093, p < .001 $CI_{95\%}$ [.50; .87], but only marginally significant for moral shame, B = .18, SE = .094, p = .052, $CI_{95\%}$ [-.00; .37]. In the performance shame condition, those in the low shame condition reported significantly lower repair motivation (M = 2.29, SE = .133) than those in the high shame condition (M = 4.21, SE = .127).

Table 2.9

Bootstrapped Regression Coefficients and Inferential Statistics as a Function of Self-Theory Condition, Shame Severity Condition and Shame Domain Condition on Repair Motivation

Step and predictor	*B*	SE_B	*p*	$CI_{95\%}$
Step 1	$R^2 = .37$, $F\ (3, 185) = 35.99$, $p < .001$			
Constant	3.48	.070	< .001	[3.35, 3.61]
Self-Theory	-.08	.069	.234	[-.21, .05]
Shame Severity	.43	.070	< .001	[.29, .56]
Domain	.53	.070	< .001	[.39, .66]
Step 2	$\Delta R^2 = .05$, $\Delta F\ (1,182) = 4.75$, $p = .003$			
Constant	3.49	.070	< .001	[3.35, 3.63]
Self-Theory	-.07	.068	.311	[-.20, .07]
Shame Severity	.43	.069	< .001	[.29, .56]
Domain	.54	.068	< .001	[.40, .67]
Self-Theory × Shame Severity	-.05	.069	.445	[-.19, .08]
Self-Theory × Domain	.02	.067	.782	[-.12, .15]
Domain × Shame Severity	-.25	.069	.001	[-.38, -.11]
Step 3	$\Delta R^2 = .00$, $\Delta F\ (1, 181) = .15$, $p = .703$			
Constant	3.49	.070	< .001	[3.36, 3.63]
Self-Theory	-.07	.069	.331	[-.20, .07]
Shame Severity	.43	.069	< .001	[.29, .56]
Domain	.53	.070	< .001	[.40, .67]
Self-Theory × Shame Severity	-.05	.069	.447	[-.19, .08]
Self-Theory × Domain	.02	.068	.770	[-.12, .15]
Domain × Shame Severity	-.25	.070	.001	[-.38, -.11]
Self-Theory × Domain × Shame Severity	-.03	.069	.702	[-.16, .11]

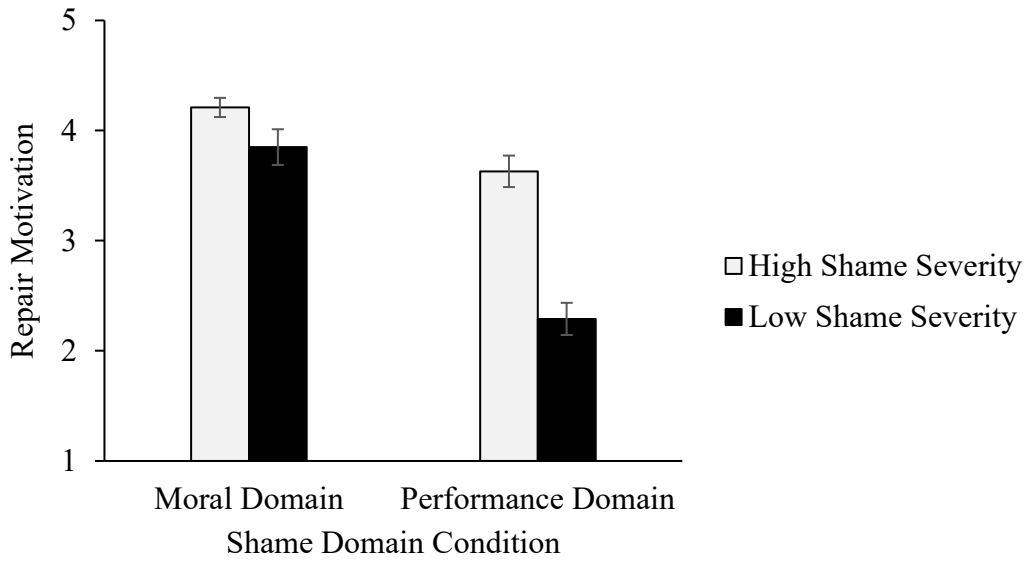

Figure 2.10. Interaction between shame domain and shame severity conditions on repair motivation. Standard errors are represented in the figure by the error bars attached to each column.

Hypothesis 2c. Moderating Effect of Self-Theory on Relationship Between Shame and Self-Improvement Motivation

The three-way interaction between shame severity, self-theory and shame domain conditions on self-improvement motivation was not significant, but there was a significant two-way interaction between shame severity and self-theory conditions (see Table 2.10 and Figure 2.11). The simple main effect of shame severity condition on self-improvement motivation was statistically significant for both the entity belief condition, $F(1, 181) = 17.99$, $p < .001$, $\eta_p^2 = .09$, and incremental belief condition, $F(1, 181) = 52.79$, $p < .001$, $\eta_p^2 = .23$. All pairwise comparisons were made with a Bonferroni adjustment. In the incremental belief condition self-improvement motivation was significantly higher when shame severity was high ($M = 3.75$, $SE = .158$) compared to low ($M = 2.34$, $SE = .136$), $p < .001$, $CI_{95\%}$ [-1.94, -1.07]. This was also the case in the entity belief condition, although the difference was

smaller (as indicated by the significant interaction): self-improvement motivation was significantly higher when shame severity was high (M = 3.48, SE = .151) than when shame severity was low (M = 2.60, SE = .141), $p < .001$, $CI_{95\%}$ [-1.27, -.48]. As such, only the main effect of shame severity within the incremental belief condition aligned with the hypothesis.

Table 2.10

Bootstrapped Regression Coefficients and Inferential Statistics as a Function of Self-Theory Condition, Shame Severity Condition and Shame Domain Condition on Self-Improvement Motivation

Step and predictor	*B*	SE_B	*p*	$CI_{95\%}$
Step 1	$R^2 = .29$, $F\ (3, 185) = 25.46$, $p < .001$			
Constant	3.07	.074	<.001	[2.93, 3.22]
Self-Theory	-.04	.073	.559	[-.19, .10]
Shame	.60	.075	<.001	[.45, .75]
Domain	.17	.074	.024	[.02, .31]
Step 2	$\Delta R^2 = .02$, $\Delta F\ (3, 182) = 1.72$, $p = .164$			
Constant	3.06	.074	<.001	[2.91, 3.20]
Self-Theory	-.04	.073	.625	[-.18, .11]
Shame	.60	.074	<.001	[.45,.74]
Domain	.18	.074	.018	[.03, .32]
Self-Theory × Shame	-.16	.075	.038	[-.31, -.01]
Self-Theory × Domain	.06	.073	.428	[-.09, .20]
Domain × Shame	-.02	.073	.790	[-.17, .12]
Step 3	$\Delta R^2 = .01$, $\Delta F\ (1, 181) = 2.72$, $p = .101$			
Constant	3.07	.074	<.001	[2.92, 3.21]
Self-Theory	-.03	.074	.700	[-.17, .12]
Shame	.60	.074	<.001	[.45, .74]
Domain	.17	.074	.028	[.02, .31]
Self-Theory × Shame	-.16	.075	.036	[-.30, -.01]
Self-Theory × Domain	.06	.074	.398	[-.09, .21]
Domain × Shame	-.02	.073	.797	[-.16, .12]
Self-Theory × Domain × Shame	-.12	.074	.103	[-.27, .02]

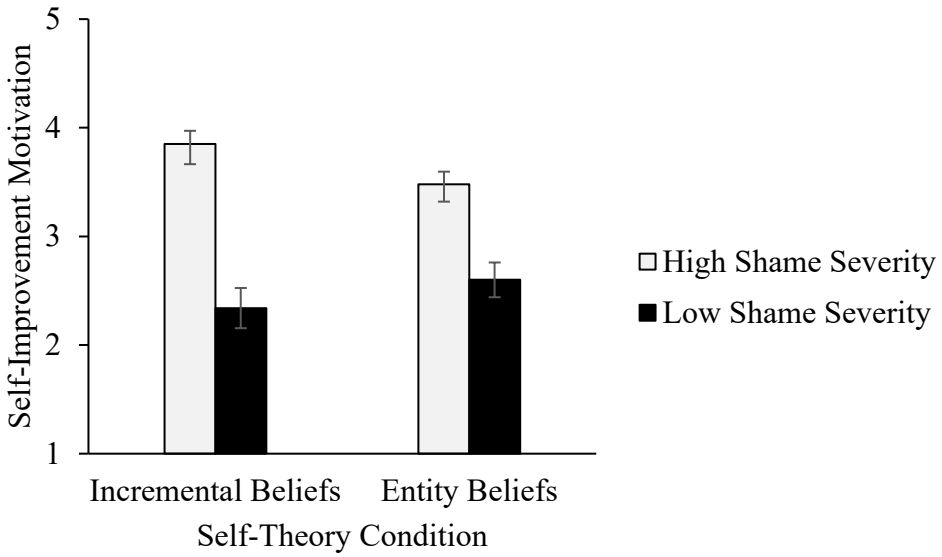

Figure 2.11. Interaction between self-theory condition and shame severity condition on self-improvement motivation. Standard errors are represented in the figure by the error bars attached to each column.

Discussion

Similar to Study 2.1, the current study found a curvilinear relationship between shame and repair motivation such that the positive relationship between shame and repair motivation became smaller as shame increased. This contradicts the hypothesis given the relationship was predicted to become negative as shame increased. Contrary to predictions and the findings of Study 2.1, shame did not have a significant curvilinear relationship with avoidance or self-improvement motivations, suggesting that the curvilinear relationships found in Study 2.1 between shame and avoidance and self-improvement motivations may be unreliable. Furthermore, the results of the current study suggest that contrary to predictions self-theories do not moderate the relationship between shame and motivational responses, although shame had a larger impact on self-improvement motivations amongst incremental theorists in comparison to entity theorists. Finally, the results suggest that shame domain does not influence the effect of self-theories on the relationship between shame and responses to shame.

There was a significant interaction between self-theories and shame severity on self-improvement motivation, this was such that in both the entity and incremental belief conditions, self-improvement motivation was higher within the high shame severity condition compared to the low shame severity condition and this effect was more pronounced in the incremental belief condition. It was unexpected that those in the entity condition would endorse self-improvement motivations in response to a shameful experience. Furthermore, the moderating effect of self-theories on the relationship between shame and avoidance found in Study 2.1 was not replicated in the current study, suggesting that this result in Study 2.1 may be attributed to either the context of identity conflict or due to confounds associated with a cross-sectional design. Unfortunately, the current study did not include a measure of perceived reparability, and in turn, it is unknown whether these unexpected and non-significant findings are a result of self-theories not influencing perceived reparability or whether perceived reparability does not moderate the relationship between shame and responses as predicted.

Study 2.2 replicated the finding in Study 2.1 of a positive correlation between motivations to avoid and repair motivations in response to transgressions, suggesting that the phenomenon is not specific to social identity conflict scenarios. Given approach and repair responses and avoidance responses are often treated as dichotomies, I had anticipated a negative correlation between the scales. Furthermore, a positive correlation has not been reported within other studies that have employed these motivational scales (Lickel et al., 2014; Schmader & Lickel, 2006). However, the co-occurrence of social approach and avoidance motivations have been found in previous studies (e.g., Elliot et al., 2006; Gable, 2006). Although it is understandable that approach and avoidance motivations may co-occur, the same cannot be said for behavioural choices. One can only approach or avoid a person at a given point in time. As such, comparing measurements of behavioural motivations and

behavioural choices would be beneficial in order to gain a comprehensive understanding of the relationship between shame and responses to shame. Indeed, this comparison would have implications for how responses to shame are measured, which will be discussed further in the General Discussion of this chapter.

Study 2.3

Study 2.3 sought to address the aforementioned issues through including a measure of perceived reparability and a bipolar measure of avoidance-approach within the existing experimental design. Regarding the bipolar measure of avoidance-approach, participants were presented with a bipolar scale that contains a behavioural avoidance option on one end and a behavioural approach option on the other and rate the likelihood that they would engage in one behaviour over the other (i.e., *bipolar approach*) as well as a forced choice between the two options. I hope that this choice of either approach and avoidance action intentions will aid the interpretation of responses to shame, particularly in the context of co-occurring avoidance and repair motivations.

Hypotheses

Hypothesis 1. There will be a curvilinear relationship between shame and avoidance motivation, such that both low and high shame will be associated with higher avoidance motivation than moderate shame (i.e., a "U" shaped relationship). The inverse will be true for repair and self-improvement motivations, as well as bipolar approach, such that both low and high shame are associated with lower repair motivations, self-improvement motivations and bipolar approach than moderate shame (i.e., an inverted "U" shaped relationship).

Hypothesis 2. Participants in the entity belief condition will report significantly lower perceived reparability than participants in the incremental belief condition.

Hypothesis 3. Self-theory condition will moderate the relationship between shame severity condition and avoidance motivation, such that in the entity belief condition,

avoidance motivation will be higher in the high shame severity condition than in the low shame severity condition, and in the incremental belief condition avoidance motivation will be lower in the high shame severity condition than in the low shame severity condition.

The inverse will be true for repair and self-improvement motivations, such that in the entity belief condition, repair and self-improvement motivations will be lower in the high shame severity condition than in the low shame severity condition, and in the incremental belief condition repair and self-improvement motivations will be higher in the high shame severity condition than in the low shame severity condition. The same pattern will also exist for bipolar approach.

Hypothesis 4. Perceived reparability will moderate the relationship between shame severity condition and avoidance motivation, such that when perceived reparability is low, avoidance motivation will be higher in the high shame severity condition than in the low shame severity condition, and when perceived reparability is high, avoidance motivation will be lower in the high shame severity condition than in the low shame severity condition.

The inverse will be true for repair and self-improvement motivations, such that when perceived reparability is low, repair and self-improvement will be lower in the high shame severity condition than in the low shame severity condition, and when perceived reparability is high, repair and self-improvement motivations will be higher in the high shame severity condition than in the low shame severity condition. The same pattern will be evident for bipolar approach.

There will also be exploratory analyses regarding effect of shame domain on responses to shame.

Method

Participants

Two hundred and fifty-five participants were recruited through Amazon Mechanical Turk. After removing incomplete surveys ($N = 3$) and surveys that included failed attention checks ($N = 13$; wording of attention check detailed in Study 2.1), the final sample consisted of 239 participants (49% female), ranging from 20 to 73 years of age ($M = 36.71$, $SD = 12.75$).

Statistical Power

A sensitivity analysis was conducted using the GPower software package (Faul & Erdfelder, 1992). Based on a 7 predictor variable equation as a baseline, with alpha set at .05 and 239 participants the analysis suggested that there was adequate power (.80) to detect an R^2 of .03, a small to medium effect.

Design

The study used a 2 (self-theory: entity, incremental) × 2 (shame type: high, low) x 2 (shame domain: moral, performance) experimental design.

Materials and Procedure

Demographics. Participants were asked their age in years and their sex.

Self-theory manipulation. As per Study 2.2, participants were randomly allocated to either the incremental or entity belief condition and presented with a feigned online news article that either depicted personal characteristics as fixed (representing entity beliefs) or changeable (representing incremental beliefs; appendix A; based on Miller et al., 2007). Unlike in Study 2, after reading the article participants were asked to reflect on an example of how the research depicted in the news article has been true in their own lives. This was with the aim of manipulating the degree to which participant viewed their *own* characteristics as fixed or changeable, more so than changeability of the traits of the population generally.

Shame manipulation. Participants were presented with the same hypothetical scenarios as Study 2.2 (appendix B), in which they were asked to imagine they had

committed either a moral transgression (deliberate vs. inadvertent rejection of a friend) or performance transgression (humiliating vs. unimpressive performance at an oral presentation).

Applying the same measures as Studies 2.1 and 2.2, participants then rated their avoidance motivation (4 items, a = .88), repair motivation (3 items, a = .79), self-improvement motivation (4 items, a = .88; Lickel et al., 2004). In addition to these motivational measures, participants completed a bipolar measure of approach.

Bipolar approach scale. Participants were asked whether, or not, they would go to the gym where the friend will be whose birthday invite they received (in the moral shame condition); or, whether, or not, they would present another oral presentation (in the performance shame condition). Participants answered a dichotomous choice (yes/no) and a bipolar likelihood scale ranging from "not go to gym"/"not present again" (1) to "go to gym"/"present again" (7).

Then, using the same measures as Studies 2.1 and 2.2, participants rated how reparable they perceived the situation to be (6 items, α = .94). As manipulation checks, participants then rated the shame they would feel in the hypothetical scenario (4 items, α = .94) and entity beliefs in relation to themselves (i.e., self-theories; 3 items, α = .92).

Results

Statistical Approach

Independent samples t-tests were applied to test, as planned comparisons, for significant differences between groups (Hypothesis 1). Tests of curvilinear relationships followed recommendations by Aiken and West (1991), as detailed in Study 2 (Hypothesis 2). To test Hypothesis 3, a 2 (self-theory: entity, incremental) × 2 (shame severity: high, low) × 2 (shame domain: moral, performance) ANOVA was performed on the outcome variable. However, preliminary examination showed that the homogeneity of variances assumption

was violated as indicated by Levene's test for equality of variances repair motivation, $F(3, 325) = 3.02$, $p = .031$, and in turn a bootstrapped moderated multiple regression analysis was performed as described in Study 2.2. To test Hypothesis 4, Model 3 of the PROCESS macro (Hayes, 2013) was applied with 5000 bootstrapped samples. All predictor variables were centred prior to regression analyses (Aiken & West, 1991), and codings for dichotomous variables were as follows: self theory (-1 incremental belief condition, +1 entity belief condition), shame severity (-1 low shame severity condition, +1 high shame severity condition), domain (-1 moral condition, +1 performance condition). Table 2.11 provides a summary of the descriptive statistics and the intercorrelations between key variables.

Table 2.11

Summary of Intercorrelations, Means, Standard Deviations and Ranges for Key Variables

	M (SD)	Range	1	2	3	4	5	6	7
1. Shame	3.00 (1.38)	1-5	-	-.03	-.55**	.60**	.43**	.53**	-.25
2. Entity beliefs	4.05 (1.63)	1-7	-	-	-.10	.17**	-.08	-.22**	-.17**
3. Reparability	4.84 (1.57)	1-7	-	-	-	-.62**	-.17**	-.43**	.26**
4. Avoidance	2.83 (1.17)	1-5	-	-	-	-	.20**	.38**	-.32**
5. Repair	3.56 (1.12)	1-5	-	-	-	-	-	.63**	.16*
6. Self-improvement	3.22 (1.10)	1-5	-	-	-	-	-	-	.05
7. Bipolar approach	4.23 (2.36)	1-7	-	-	-	-	-	-	-

Note. **Correlation is significant at the .01 level (2-tailed) *Correlation is significant at the .05 level (2-tailed).

Manipulation Checks

Shame. Independent-samples t-tests demonstrated that the shame manipulation had the desired effect. Participants in the high moral shame condition ($M = 4.13$, $SD = .93$) reported feeling significantly more shame than participants in the low moral shame condition ($M = 2.85$, $SD = 1.21$), $t(118) = 6.44$, $p < .001$, $d = 1.19$. Participants in the high performance

shame condition (M = 3.32, SD = 1.24) also reported feeling significantly more shame than participants in the low performance shame condition (M = 1.75, SD =.94), $t(117) = 7.83$, $p < .001$, d = 1.43. As was the case in Study 2.2, participants in the low moral shame condition reported significantly higher shame (M = 2.85, SD = 1.21) than participants in the low performance shame condition (M = 1.75, SD = .94), $t(120) = 5.61$, $p < .001$, d = 1.02. The same pattern also applied to the high shame conditions, such that participants in the high moral shame condition reported significantly higher shame (M = 4.13, SD = .92) than participants in the high performance shame condition (M = 3.32, SD = 1.24), $t(115) = 4.00$, $p < .001$, d = .74. This represents a confound in the study in that any group differences found between the low moral and low performance shame condition and differences between the high moral and high performance shame condition may be due to differing levels of shame, rather than differing domains of shame. This will be considered when interpreting relevant results.

Self-entity beliefs. An independent samples t-test demonstrated that participants in the entity belief condition reported significantly higher entity beliefs (M = 4.42, SD = 1.60) than participants in the incremental belief condition (M = 3.66, SD = 1.60), $t(237) = -3.67$, $p < .001$, d = .47.

Hypothesis 1. Curvilinear Effect of Shame on Avoidance Motivation, Repair Motivation, Self-Improvement Motivation and Bipolar Approach Scale

Contrary to the hypothesis, there was no evidence of a curvilinear relationship between shame and responses to shame (see Table 2.12). Interestingly, shame had a positive linear relationship with avoidance, repair and self-improvement motivations, but a negative linear relationship with bipolar approach. Hence, although the motivational measures suggest both repair and avoidance motivations increase in response to shame, when pitting the behavioural options against each other in the bipolar approach measure participants in the high (vs. low) shame condition tended to opt for more avoidant/less approach behaviour.

Table 2.12

Hierarchical Multiple Regression Analyses for Shame and Shame Squared Predicting Avoidance Motivation, Repair Motivation, Self-Improvement Motivation, and Bipolar Approach

	B	SE_B	*β*	*p*	$CI_{95\%}$
Avoidance Motivation					
Step 1	$R^2 = .36$, $F\ (1, 237) = 134.21$, $p < .001$				
(Constant)	2.83	.060		< .001	[2.71, 2.95]
Shame	.51	.044	.601	< .001	[.42, .59]
Step 2	$\Delta R^2 = .01$, $\Delta F\ (1, 236) = 2.94$, $p = .088$				
(Constant)	2.95	.094		< .001	[2.77, 3.14]
Shame	.50	.044	.594	< .001	[.42, .59]
$Shame^2$	-.07	.038	-.089	.088	[-.14, .01]
Repair Motivation					
Step 1	$R^2 = .19$, $F\ (1, 237) = 54.90$, $p < .001$				
(Constant)	3.56	.065		< .001	[3.43, 3.69]
Shame	.35	.047	.434	< .001	[.26, .44]

Step 2		$\Delta R^2 = .01$, $\Delta F\ (1, 236) = 1.75$, $p = .187$			
(Constant)	3.66	.102		< .001	[3.46, 3.86]
Shame	.35	.047	.427	< .001	[.25, .44]
Shame^2	-.06	.041	-.078	.187	[-.14, .03]
Self-Improvement Motivation					
Step 1		$R^2 = .28$, $F\ (1, 237) = 90.82$, $p < .001$			
(Constant)	3.22	.061		<.001	[3.10, 3.34]
Shame	.42	.044	.53	<.001	[.33, .51]
Step 2		$\Delta R^2 = .00$, $\Delta F\ (1, 236) = .87$, $p = .352$			
(Constant)	3.16	.095		<.001	[2.97, 3.34]
Shame	.42	.044	.53	< .001	[.34, .51]
Shame^2	.04	.038	.05	.352	[-.04, .11]
Bipolar Approach					
Step 1		$R^2 = .06$, $F\ (1, 237) = 15.30$, $p < .001$			
(Constant)	4.23	.148		< .001	[3.94, 4.53]
Shame	-.42	.107	-.25	< .001	[-.63, -.21]
Step 2		$\Delta R^2 = .01$, $\Delta F\ (1, 236) = 3.24$, $p = .073$			
(Constant)	4.55	.231		< .001	[4.10, 5.01]
Shame	-.44	.107	-.26	< .001	[-.65, -.22]
Shame^2	-.17	.093	-.11	.073	[-.35, .02]

Hypothesis 2. Difference in Perceived Reparability Between Self-Theory Conditions

An independent samples t-test showed that contrary to the hypothesis there was not a significant difference between perceived reparability between the entity belief condition (M = 4.77, SD = 1.63) and the incremental belief condition (M = 4.92, SD = 1.50), $t(237) = .76$, p = .446, $CI_{95\%}$ [-.25; .56].

Hypothesis 3a. Self-Theory Moderating Relationship Between Shame and Avoidance Motivation

There was not a significant three-way interaction between shame severity, self-theory and shame domain conditions on avoidance motivation, and contrary to the hypothesis, there was not a significant interaction between self-theories and shame severity conditions on avoidance motivation. There were also no other significant two-way interactions (see Table 2.13). Self-theory condition and shame domain condition did not have a significant main effect, but shame severity condition did have a significant effect, such that those in the low shame severity condition reported lower avoidance motivation (M = 2.38, SE = .103) than those in the high shame severity condition (M = 3.28, SE = .102).

Table 2.13

Inferential Statistics and Effect Size (Partial Eta^2) as a Function of Shame Domain Condition, Shame Severity Condition and Self-Theory Condition on Avoidance Motivation

Predictor	F (1, 230)	p	η_p^2
Self-Theory	3.59	.059	.02
Shame Severity	42.78	< .001	.16
Domain	1.62	.204	.01
Self-Theory × Shame Severity	1.25	.265	.01
Self-Theory × Domain	.34	.559	.00
Shame Severity × Domain	2.63	.106	.01
Self-Theory × Shame Severity × Domain	.19	.664	.00

Hypothesis 3b. Self-Theory Moderating Relationship Between Shame and Repair Motivation

There was also no evidence of a significant three-way interaction between shame severity, self-theory and shame domain condition on repair motivation, and, contrary to the hypothesis, there was not a significant two-way interaction between the self-theory and shame severity conditions (see Table 2.14). However, there was a significant interaction between the shame severity and shame domain conditions (see Figure 2.12). The simple main effect of shame severity condition was statistically significant for performance shame, $F(1, 231) = 17.89$, $p < .001$, $\eta_p^2 = .07$, but not for moral shame, $F(1, 231) = 0.81$, $p = .369$, $\eta_p^2 = .00$. All pairwise comparisons were made with a Bonferroni adjustment. Those in the low performance shame condition reported significantly lower repair motivation ($M = 2.63$, $SE = .120$) than those in the high performance shame condition ($M = 3.35$, $SE = .121$), $CI_{95\%}$ [-1.06, -0.37], $p < .001$. Self-theory had a significant main effect, such that those in the incremental belief condition reported higher repair motivations ($M = 3.69$, $SE = .088$) than those in the entity belief condition ($M = 3.44$, $SE = .085$). Shame domain also had a significant main effect, such that those in the moral shame condition reported higher repair motivations ($M = 4.14$, $SE = .085$) than those in the performance shame condition ($M = 2.99$, $SE = .085$).

Table 2.14

Bootstrapped Regression Coefficients and Inferential Statistics as a Function of Self-Theory Condition, Shame Severity Condition and Shame Domain Condition on Repair Motivation

Step and predictor	*B*	SE_B	*p*	$CI_{95\%}$
Step 1	$R^2 = .31$, $\Delta F\ (3, 235) = 35.71$, $p < .001$			
Constant	3.56	.060	< .001	[3.45; 3.68]
Self-Theory	-.12	.060	.049	[-.24; -.00]
Shame Severity	.22	.060	< .001	[.10; .34]
Domain	-.58	.060	< .001	[-.69; -.46]
Step 2	$\Delta R^2 = .02$, $\Delta F\ (3, 232) = 1.86$, $p = .137$			
Constant	3.56	.060	< .001	[3.44; 3.68]
Self-Theory	-.13	.060	.038	[-.24; -.01]
Shame Severity	.22	.060	< .001	[.10; .34]
Domain	-.57	.060	< .001	[-.69; -.46]
Self-Theory × Shame Severity	.01	.060	.858	[-.11; .13]
Self-Theory × Domain	.01	.060	.875	[-.11; .13]
Domain × Severity	.14	.060	.020	[.02; .26]
Step 3	$\Delta R^2 = .00$, $\Delta F\ (1, 231) = .38$, $p = .539$			
Constant	3.56	.060	< .001	[3.45; 3.68]
Self-Theory	-.13	.060	.039	[-.24; -.01]
Shame Severity	.22	.060	< .001	[.10; .34]
Domain	-.57	.060	< .001	[-.69; -.45]
Self-Theory × Shame Severity	.01	.060	.860	[-.11; .13]
Self-Theory × Domain	.01	.060	.886	[-.11; .13]
Domain × Shame Severity	.14	.060	.019	[.02; .26]
Self-Theory × Domain × Shame Severity	-.04	.060	.539	[-.16; .08]

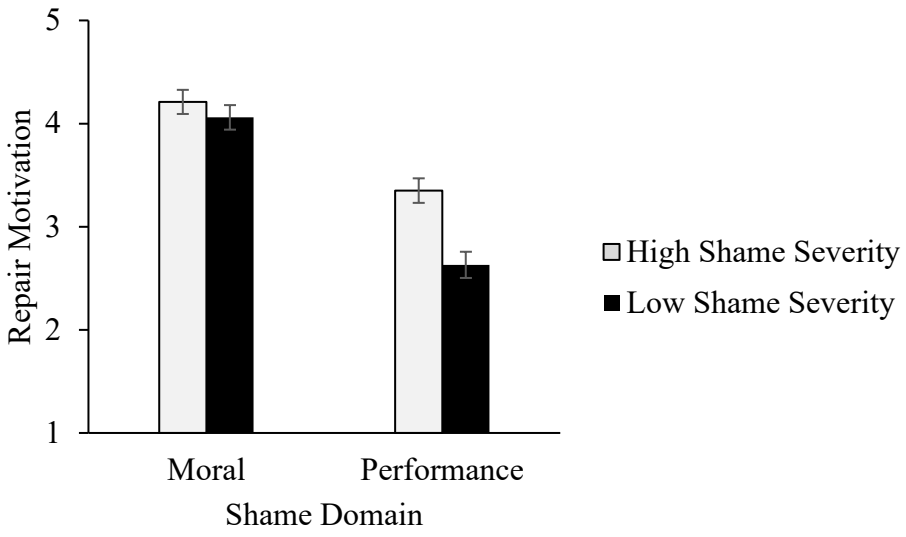

Figure 2.12. Interaction between shame domain and shame severity conditions on repair motivation. Standard errors are represented in the figure by the error bars attached to each column.

Hypothesis 3c. Self-Theory Moderating the Relationship Between Shame and Self-Improvement Motivation

There was not a significant three-way interaction between shame severity, self-theory and shame domain conditions on self-improvement motivation, and, contrary to the hypothesis, there was not a significant interaction between the shame severity and self-theory conditions on self-improvement motivation (see Table 2.15). There were no other significant two-way interactions. There was a significant main effect of self-theories, such that those in the incremental belief condition reported higher self-improvement motivation (M = 3.42, SE = .094) than those in the entity belief condition (M = 3.05, SE = .091). There was also a significant main effect of shame severity, such that those in the low shame condition reported lower self-improvement motivation (M = 2.87, SE = .092) than those in the high shame condition (M = 3.60, SE = .094). Shame domain also had a significant main effect, such that

those in the moral shame condition reported higher repair motivation (M = 3.45, SE = .092) than those in the performance shame condition (M = 3.01, SE = .093).

Table 2.15

Inferential Statistics and Effect Size (Partial Eta^2) as a Function of Shame Domain Condition, Shame Severity Condition and Self-Theory Condition on Self-Improvement Motivation

Predictor	F (1, 230)	p	η_p^2
Self-Theory	8.18	.005	.03
Shame Severity	30.67	< .001	.12
Domain	11.59	.001	.05
Self-Theory × Shame Severity	.08	.776	.00
Self-Theory × Domain	.29	.590	.00
Shame Severity × Domain	1.18	.279	.01
Self-Theory × Shame Severity × Domain	.23	.630	.00

Hypothesis 3d. Self-Theory Moderating Relationship Between Shame and Bipolar Approach

There was not a significant three-way interaction between shame severity, self-theory and shame domain conditions on the bipolar approach scale, and, contrary to the hypothesis, there was not a significant interaction between self-theory and shame severity conditions (see Table 2.16). However, there was a significant interaction between shame severity and shame domain (see Figure 2.13). The simple main effect of shame severity condition was statistically significant for the moral domain group, F(1, 230) = 25.98, p < .001, η_p^2 = .10, but not for performance domain group, F(1, 230) = 2.69, p = .103, η_p^2 = .01. All pairwise comparisons were made with a Bonferroni adjustment. In the moral shame group, those in the low shame condition reported significantly higher bipolar approach (M = 5.26, SE = .283)

than those in the high shame condition (M = 3.19, SE = .292), $CI_{95\%}$ [1.24, 2.83], $p < .001$[3]. There was also a significant main effect of self-theory condition; those in the incremental belief condition reported higher bipolar approach scores (M = 4.53, SE = .207) than those in the entity belief condition (M = 3.94, SE = .201).

Table 2.16

Inferential Statistics and Effect Size (Partial Eta^2) as a Function of Shame Domain Condition, Shame Severity Condition and Self-Theory Condition on Bipolar Approach Scale

Predictor	F (1, 230)	p	η_p^2
Self-Theory	4.19	.042	.02
Shame Severity	5.93	.016	.03
Domain	.00	.964	.00
Self-Theory × Domain	.29	.594	.00
Self-Theory × Shame Severity	3.75	.054	.02
Shame Severity × Domain	22.63	< .001	.09
Self-Theory × Shame Severity × Domain	.58	.446	.00

[3] A binomial logistic regression was used to test the hypothesis on dichotomous approach choice and the same pattern was evident (see appendix C).

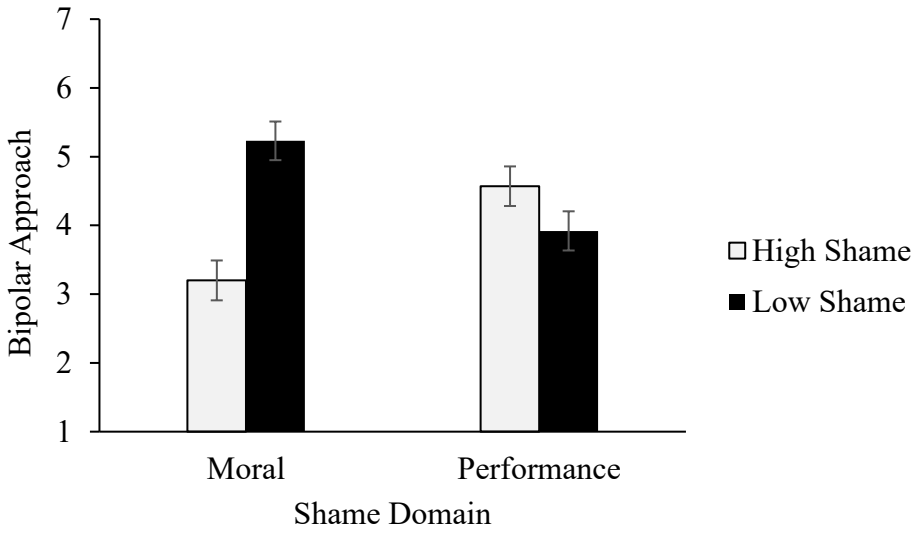

Figure 2.13. Interaction between shame domain and shame severity on bipolar approach scale. Standard errors are represented in the figure by the error bars attached to each column.

Hypothesis 4a. Moderating Effect of Reparability on Relationship Between Shame and Avoidance Motivation

The three-way interaction between shame severity, perceived reparability and shame domain on avoidance motivation was not significant and, contrary to predictions, there was not a significant two-way interaction between shame severity and perceived reparability on avoidance motivation (see Table 2.17). Perceived reparability had a significant negative main effect on avoidance motivation, and shame severity had a significant positive main effect on avoidance motivation, while the main effect of domain was not significant.

Table 2.17

Results of Hierarchical Regression Analysis Predicting Avoidance Motivation with Shame Condition, Perceived Reparability, Shame Domain Condition and Their Two- and Three-Way Interactions

Predictor	*B*	SE_B	*t*	*p*	$CI_{95\%}$
	$R^2 = .43$, $F = 25.16$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = 1.71$, $p = .193$				
Constant	-2.88	.063	45.49	< .001	[2.76; 3.01]
Reparability	-.41	.040	-10.24	< .001	[-.49; -.33]
Shame Severity	.21	.063	3.29	.001	[.08; .33]
Domain	.05	.063	.778	.438	[-.08; .17]
Shame Severity × Reparability	.06	.040	1.56	.119	[-.02; .14]
Shame Severity × Domain	.05	.063	.81	.420	[-.07; .18]
Reparability × Domain	-.06	.040	-1.48	.141	[-.14; .02]
Shame Severity × Reparability × Domain	.05	.040	1.31	.193	[-.03; .13]

Note. Overall model $df = 7, 231$. Three-way interaction $df = 1, 231$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

Hypothesis 4b. Moderating Effect of Reparability on Relationship Between Shame and Repair Motivation

There was a significant three-way interaction between shame severity, perceived reparability and shame domain on repair motivation (see Table 2.18 and Figure 2.14). This was such that in the moral condition there was not a significant two-way interaction between shame severity and reparability, $B = -.06$, $SE = .057$, $p = .283$, $CI_{95\%}$ [-.18; .05], whereas in the performance condition there was a significant interaction, $B = .20$, $SE = .059$, $p = .001$, $CI_{95\%}$ [.09; .32]. In the performance condition, when perceived reparability was low there was not a significant relationship between shame and repair motivation, $B = -.06$, $SE = .144$, $p = .701$, $CI_{95\%}$ [-.34; .23], whereas when perceived reparability was high there was a significant

positive relationship between shame and repair motivation, $B = .58$, $SE = .116$, $p < .001$, $CI_{95\%}$ [.35; .80].

Table 2.18

Results of Hierarchical Regression Analysis Predicting Repair Motivation with Shame Condition, Perceived Reparability, Shame Domain Condition and Their Two- and Three-Way Interactions

Predictor	*B*	SE_B	*t*	*p*	$CI_{95\%}$
	$R^2 = .35$, $F = 18.07$, $p < .001$, $\Delta R^2 = .03$, $\Delta F = 10.20$, $p = .001$				
Constant	3.61	.065	55.90	< .001	[3.48; 3.74]
Reparability	-.04	.041	-.89	.374	[-.12; .04]
Shame Severity	.16	.065	2.53	.012	[.04; .29]
Domain	-.49	.065	-7.55	< .001	[-.62; -.36]
Shame Severity × Reparability	.07	.041	1.67	.096	[-.01; .15]
Shame Severity × Domain	.10	.065	1.49	.138	[-.03; .22]
Reparability × Domain	-.04	.041	-1.00	.320	[-.12; .04]
Shame Severity × Reparability × Domain	.13	.041	3.19	.002	[.05; .21]

Note. Overall model $df = 7, 231$. Three-way interaction $df = 1, 231$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

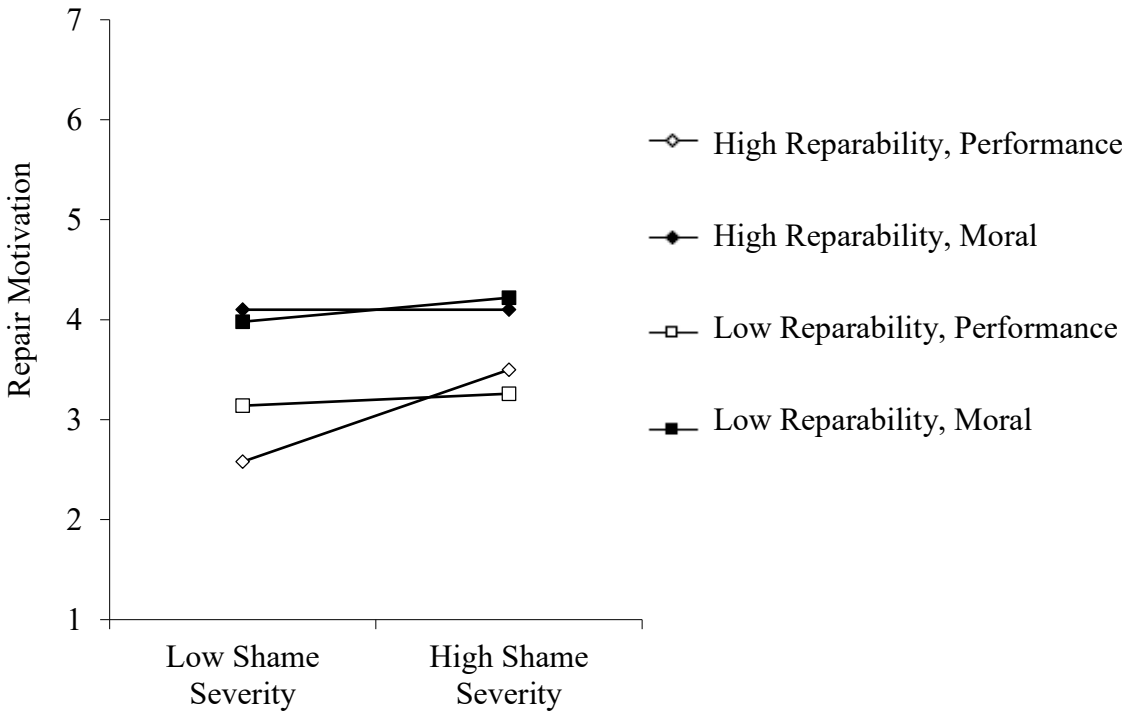

Figure 2.14. Interaction between perceived reparability, shame severity and shame domain on repair motivation.

Hypothesis 4c. Moderating Effect of Reparability on Relationship Between Shame and Self-Improvement Motivation

Aligned with the hypothesis, there was a significant interaction between shame severity and perceived reparability on self-improvement motivation (see Table 2.19). When perceived reparability was low, there was not a significant relationship between shame and self-improvement motivation, $B = .05$, SE = .096, $p = .621$, $CI_{95\%}$ [-.14; .24], whereas when perceived reparability was high there was a significant positive relationship, $B = .39$, $SE = .095$, $p < .001$, $CI_{95\%}$ [.20; .57] (see Figure 2.15). There were no other significant interactions.

Table 2.19

Results of Hierarchical Regression Analysis Predicting Self-Improvement Motivation with Shame Condition, Perceived Reparability, Shame Domain Condition and Their Two- and Three-Way Interactions

Predictor	*B*	SE_B	*t*	*p*	$CI_{95\%}$
	$R^2 = .26$, $F = 11.85$, $p < .001$, $\Delta R^2 = .01$, $\Delta F = 1.79$, $p = .183$				
Constant	3.27	.068	48.16	< .001	[3.14; 3.41]
Reparability	-.24	.043	-5.58	< .001	[-.33; -.16]
Shame Severity	.21	.068	3.15	.002	[.08; .35]
Domain	-.13	.068	-1.84	.067	[-.26; .01]
Shame Severity × Reparability	.10	.043	2.26	.025	[.01; .18]
Shame Severity × Domain	.04	.068	.60	.551	[-.09; .17]
Reparability × Domain	.02	.043	.052	.600	[-.06; .11]
Shame Severity × Reparability × Domain	.06	.043	1.34	.183	[-.03; .14]

Note. Overall model $df = 7, 231$. Three-way interaction $df = 1, 231$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

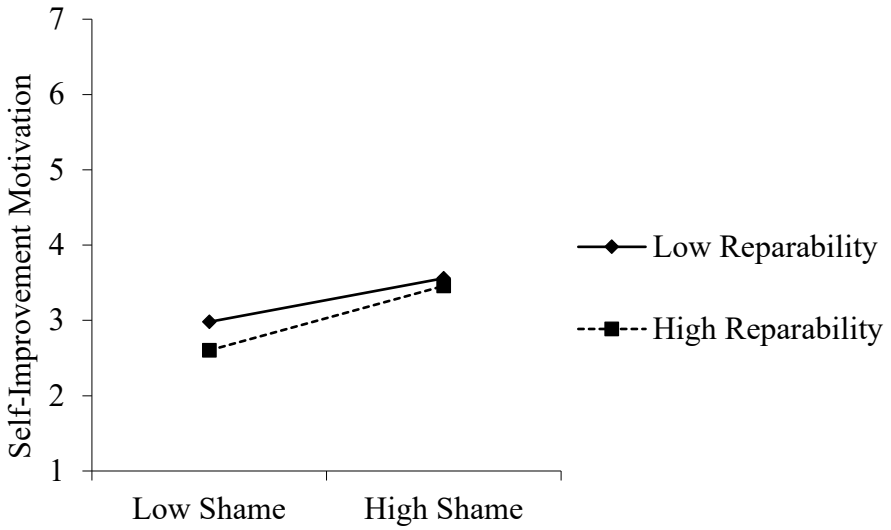

Figure 2.15. Interaction between shame severity condition and perceived reparability on self-improvement motivation.

Hypothesis 4d. Moderating Effect of Reparability on Relationship Between Shame and Bipolar Approach

There was not a significant three-way interaction and, contrary to predictions, there was not a significant two-way interaction between shame severity and perceived reparability[4] (see Table 2.20). There was a significant two-way interaction between shame severity and shame domain, as explained in the results of Hypothesis 3d.

Table 2.20

Results of Hierarchical Regression Analysis Predicting Bipolar Approach with Shame Condition, Perceived Reparability, Shame Domain Condition and their Two- and Three-Way Interactions

Predictor	*B*	SE_B	*t*	*p*	$CI_{95\%}$
	$R^2 = .17$, $F = 6.80$, $p < .001$, $\Delta R^2 < .01$, $\Delta F = 1.77$, $p = .185$				
Constant	4.31	.155	27.91	< .001	[4.01; 4.62]
Reparability	.35	.099	3.59	< .001	[.16; .55]
Shame Severity	-.20	.15	-1.31	.193	[-.51; .10]
Domain	-.03	.155	-.17	.864	[-.33; .28]
Shame Severity × Reparability	.13	.099	1.27	.204	[-.07; .32]
Shame Severity × Domain	.63	.155	4.08	< .001	[.33; .93]
Reparability × Domain	-.04	.099	-.43	.669	[-.24; .15]
Shame Severity × Reparability × Domain	.13	.099	1.33	.185	[-.06; .33]

Note. Overall model $df = 7, 231$. Three-way interaction $df = 1, 231$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

[4] A binomial logistic regression was used to test the hypothesis on dichotomous approach choice and the same pattern was evident (see appendix C).

Discussion

This study failed to replicate any of the curvilinear relationships between shame and responses to shame that were found in Studies 2.1 and 2.2, providing further support for the previous suggestion that the curvilinear effects may be unreliable. Furthermore, the results of this study suggest that self-theories do not moderate the relationship between shame and responses (i.e., motivational responses or behavioural intentions). This does not align with the hypotheses but it is consistent with the findings of Study 2.2. Although the interaction between shame and self-theories was not significant, entity beliefs did have a significant main effect on repair and self-improvement motivations, such that these motivations were higher in the incremental belief condition than the entity belief condition. This was also the case for bipolar approach: participants in the incremental belief condition were more likely to indicate that they would approach (i.e., present another oral presentation or be near their friend) than participants in the entity belief condition. This aligns with the theoretical perspective that those who believe their traits are malleable (i.e., incremental theorists) are more likely to seek to improve themselves and make amends in comparison to those who believe their traits are fixed (i.e., entity theorists). This could also suggest that although self-theories influence reparation motivations and intentions, they do not influence how a person responds to shame, perhaps because self-theory condition did not influence the perceived reparability of shame as predicted.

Perceived reparability interacted with shame to predict repair and self-improvement motivations. Shame had a positive relationship with repair motivations, but only in the performance shame condition when perceived reparability was high. Furthermore, shame had a positive relationship with self-improvement motivations, but only when perceived reparability was high. These positive relationships between shame and repair-oriented responses were not significant when perceived reparability was low, suggesting that shame

motivates efforts for reparation only when reparation of self and social-image seems possible and/or likely. Perceived reparability did not significantly interact with shame severity to predict avoidance motivation or approach intentions.

Both Study 2.2 and the current study found an unexpected significant interaction between shame severity and shame domain on the bipolar approach scale and/or repair motivations. In the performance shame condition, repair motivations and bipolar approach scores were higher for those in the high compared to low shame condition, whereas in the moral shame condition repair motivations and bipolar approach scores did not differ depending on shame severity condition. These interactions may suggest that when people transgress within a moral domain they are more motivated to repair damage caused compared to the performance domain, regardless of the severity. Alternatively, though, the results could be attributed to the different levels of shame that the hypothetical scenarios elicited (i.e., shame being generally higher in the moral shame scenario, and particular low in the low performance shame condition). That is, repair motivations may have reflected the level of shame induced, not differences between the moral and performance shame domains more generally.

Study 2.4

In order to remove confounds associated with the hypothetical scenario, the next study induced shame by asking participants to recall instances of either moral or performance transgressions from their own life. A quasi-experimental design — in which self-theories are measured — will also allow the impact self-theories on psychological distress to be investigated.

Hypotheses

Hypothesis 1. There will be a curvilinear relationship between shame and avoidance, such that both low and high shame will be associated with higher avoidance than moderate

shame (i.e., a “U” shaped relationship). The inverse will be true for repair and self-improvement, as well as bipolar approach, such that both low and high shame are associated with lower repair motivation, self-improvement motivation, and bipolar approach than moderate shame (i.e., an inverted “U” shaped relationship).

Hypothesis 2. There will be a negative relationship between perceived reparability and entity beliefs.

Hypothesis 3: Entity beliefs will moderate the relationship between shame and avoidance motivations, such that when entity beliefs are high, shame will have a positive relationship with avoidance motivation, but when entity beliefs are low, shame will have a negative relationship with avoidance motivation.

The inverse will be true for repair and self-improvement motivations, such that when entity beliefs are high, shame will have a negative relationship with repair and self-improvement motivations, but when entity beliefs are low, shame will have a positive relationship with repair and self-improvement motivations. The same pattern will be evident for bipolar approach.

Hypothesis 4. Entity beliefs will moderate the relationship between shame and psychological distress (i.e., depression, anxiety and stress), such that when entity beliefs are high, shame will have a positive relationship with psychological distress, but when entity beliefs are low, shame will not have a significant relationship with psychological distress.

Hypothesis 5. Perceived reparability will moderate the relationship between shame severity condition and avoidance motivation, such that when perceived reparability is low, avoidance motivation will be higher in the high shame severity condition than in the low shame severity condition, and when perceived reparability is high, avoidance motivation will be lower in the high shame severity condition than in the low shame severity condition.

The inverse will be true for repair and self-improvement motivations, such that when perceived reparability is low, repair and self-improvement motivations will be lower in the high shame severity condition than in the low shame severity condition, and when perceived reparability is high, repair and self-improvement motivations will be higher in the high shame severity condition than in the low shame severity condition. The same pattern will be evident for bipolar approach.

Hypothesis 6. Perceived reparability will moderate the relationship between shame and psychological distress (i.e., depression, anxiety and stress), such that when perceived reparability is low, shame will have a positive relationship with psychological distress, but when perceived reparability is high, shame will not have a significant relationship with psychological distress.

There will also be exploratory analyses regarding effect of shame domain on responses to shame.

Method

Participants

Two hundred and fifty-eight participants were recruited through Amazon Mechanical Turk. After removing incomplete surveys ($N = 59$)[5] and surveys that included failed attention checks ($N = 0$; wording of attention check detailed in Study 2.1), the final sample consisted of 199 participants (87% male), ranging from 18 to 72 years of age ($M = 35.12$, $SD = 10.94$).

Statistical Power

A sensitivity analysis was conducted using the GPower software package (Faul & Erdfelder, 1992). Based on a 7 predictor variable equation as a baseline, with alpha set at .05

[5] $N = 50$ participants withdrew from the survey prior to completing the recall task (i.e., prior to being allocated a condition), $N = 9$ withdrew from the survey at later points.

and 199 participants the analysis suggested that there was adequate power (.80) to detect an R^2 of .04, a small to medium effect.

Materials and Procedure

Demographics. Participants were asked their age in years and their sex.

Shame recall. In the moral shame condition, participants were asked to recall an example from their life of a time that they had committed an interpersonal wrongdoing (e.g., hurt, offended, or done wrong by another person). In the performance shame condition, participants were asked to recall an example from their life or a time they had committed a personal failure (e.g., failed to perform well, for instructions see appendix D).

Using the same instruments as within previous studies in this chapter, participants then rated their avoidance motivation (4 items, α = .87), repair motivation (3 items, α = .70), and self-improvement motivation (4 items, α = .90; Lickel et al., 2014). They also completed an adapted bipolar approach scale: following the shame recall, participants were asked if they tried to amend any damage that was caused and answered a dichotomous choice (yes/no) and a likelihood scale ranging from 1 “I did not try to amend any damage that was caused” (1) – “I tried to amend any damage that was caused” (7). Again using measures reported in the previous studies of this chapter, participants then rated their perceived reparability of their self and social-image (6 items, α = .90), recalled the shame they experienced in relation to the recalled event (4 items, α = .89), as well as their entity beliefs (3 items, α = .94). Finally, participants completed the Depression Anxiety and Stress Scales (DASS-21). As discussed in Study 2.1, the DASS-21 is a short form of Lovibond and Lovibond’s (1995) 42-item self-report measure of depression (7 items, a = .910), anxiety (7 items, a = .892) and stress (7 items, a = .940). Participants were asked to what extend various statements applied to them over the past week. This short form of the scale has been shown to have good construct validity in a large non-clinical adult population (Henry & Crawford, 2005).

Results

Statistical Approach

Pearson correlations were used to test simple relationships between variables (Hypothesis 1; see Table 2.21). To test curvilinear relationships (Hypothesis 2), the predictor (shame) was centred prior to calculating the quadratic term. In the first step the dependent variable was regressed onto shame to test the linear relationship. In the second step the quadratic term of shame was entered into the model (Aiken & West, 1991). To test moderation relationships (Hypotheses 3, 4, 5 and 6) Model 3 of the PROCESS macro (Hayes, 2013) was applied with 5000 bootstrapped samples. All predictor variables were centred prior to regression analyses (Aiken & West, 1991).

Table 2.21

Summary of Intercorrelations, Means and Standard Deviations of Key Variables

	M(SD)	Range	1	2	3	4	5	6	7	8	9	10
1. Shame	3.43 (1.17)	1-5	-	-.12	-.46**	.38**	.48**	.60**	.23**	.26**	.11	.21**
2. Entity beliefs	2.76 (1.76)	1-6	-	-	-.05	.02	-.08	-.19**	-.09	.13	.17*	.20**
3. Reparability	4.67 (1.51)	1-7	-	-	-	-.33**	-.23**	-.30**	-.23**	-.57**	-.43**	-.46**
4. Avoidance	3.46 (1.14)	1-7	-	-	-	-	.17*	.38**	-.04	.10	.09	.11
5. Repair	3.44 (1.10)	1-7	-	-	-	-	-	.62**	.64**	.14*	.14	.19**
6. Self-improvement	3.68 (1.13)	1-7	-	-	-	-	-	-	.36**	.14	.09	.18**
7. Bipolar approach	4.26 (2.37)	1-7	-	-	-	-	-	-	-	.12	.18*	.13
8. Depression	5.23 (5.43)	0-21	-	-	-	-	-	-	-	-	.77**	.77**
9. Anxiety	4.15 (4.60)	0-21	-	-	-	-	-	-	-	-	-	.77**
10. Stress	6.24 (5.10)	0-21	-	-	-	-	-	-	-	-	-	-

Note. **Correlation is significant at the .01 level (2-tailed). *Correlation is significant at the .05 level (2-tailed).

Hypothesis 1. Curvilinear Relationship Between Shame and Avoidance Motivation, Repair Motivation, Self-Improvement Motivation and Bipolar Approach Scale

Contrary to the hypothesis there was no evidence of a curvilinear relationship between shame and responses to shame (i.e., avoidance motivation, repair motivation, self-improvement motivation, bipolar approach scale; see Table 2.22).

Table 2.22

Results of Hierarchical Regression Analyses Predicting Motivations and Bipolar Approach Scale with Shame and Shame Squared

	B	SE_B	β	*p*	$CI_{95\%}$
Avoidance Motivation					
Step 1		$R^2 = .15$, F (1, 197) = 33.73, $p < .001$			
(Constant)	3.46	.075		< .001	[3.31, 3.61]
Shame	.37	.064	.38	< .001	[.25, .50]
Step 2		$\Delta R^2 = .00$, ΔF (1, 196) = .74, $p = .390$			
(Constant)	3.52	.107		< .001	[3.31, 3.73]
Shame	.35	.067	.36	< .001	[.22, .49]
$Shame^2$	-.05	.056	-.06	.390	[-.16, .06]
Repair Motivation					
Step 1		$R^2 = .23$, F (1, 197) = 58.31, $p < .001$			
(Constant)	3.44	.068		< .001	[3.31, 3.58]
Shame	.45	.058	.48	< .001	[.33, .56]
Step 2		$\Delta R^2 = .00$, ΔF (1, 196) = .31, $p = .581$			
(Constant)	3.40	.098		< .001	[3.21, 3.60]
Shame	.46	.062	.49	< .001	[.34, .58]
$Shame^2$	.03	.051	.04	.581	[-.07, .13]
Self-Improvement Motivation					

Step 1		$R^2 = .36$, F (1. 197) = 110.24, $p < .001$			
(Constant)	3.68	.064		< .001	[3.56, 3.81]
Shame	.58	.055	.60	< .001	[.47, .68]
Step 2		$\Delta R^2 = .00$, ΔF (1, 196) = .01, $p = .920$			
(Constant)	3.68	.092		< .001	[3.50, 3.86]
Shame	0.58	.058	.60	< .001	[.46, .69]
Shame^2	.00	.048	.00	.920	[-.09, .10]
Bipolar Approach					
Step 1		$R^2 = .05$, F (1, 197) = 11.25, $p = .001$			
(Constant)	4.26	.164		< .001	[3.93, 4.58]
Shame	.47	.140	0.23	.001	[.19, .75]
Step 2		$\Delta R^2 = .00$, ΔF (1, 196) = .13, $p = .714$			
(Constant)	4.20	.164		< .001	[3.73, 4.66]
Shame	.49	.148	.24	.001	[.20, .78]
Shame^2	.05	.122	.03	.714	[-.20, .29]

Hypothesis 2. Correlation Between Perceived Reparability and Entity Beliefs

Contrary to the hypothesis, there was no significant relationship between entity beliefs and perceived reparability (see Table 2.21).

Hypothesis 3a. Moderating Effect of Entity Beliefs on Relationship Between Shame and Avoidance Motivation

There was a significant three-way interaction between shame, entity beliefs and shame domain on avoidance motivation (see Table 2.23 and Figure 2.16). This was such that in the moral shame condition, there was a significant two-way interaction between shame and entity beliefs B = -0.10, SE = .045, p = .025 $CI_{95\%}$ [-0.19, -0.01], whereas in the performance shame condition there was not a significant two-way interaction between shame and entity

beliefs, $B = 0.10$, $SE = .055$, $p = .080$, $CI_{95\%}$ [-0.01, 0.21]. Contrary to the hypothesis, in the moral shame condition, when entity beliefs were low, there was a significant positive main effect of shame on avoidance motivation, $B = 0.53$, $SE = .120$, $p < .001$, $CI_{95\%}$ [0.29, 0.77], whereas when entity beliefs were high, there was not a significant main effect of shame on avoidance motivation, $B = 0.18$, $SE = .114$, $p = .123$, $CI_{95\%}$ [-0.05, 0.40].

Table 2.23

Results of Hierarchical Regression Analysis Predicting Avoidance Motivation with Shame, Entity Beliefs, Shame Domain Condition and Their Two- and Three-Way Interactions

Predictor	*B*	SE_B	*t*	*p*	$CI_{95\%}$
	$R^2 = .20$, $F = 6.67$, $p < .001$, $\Delta R^2 = .03$, $\Delta F = 7.81$, $p = .006$				
Constant	3.43	.075	45.79	< .001	[3.29, 3.58]
Entity Beliefs	.03	.043	.63	.526	[-.06, .11]
Shame	.41	.065	6.36	< .001	[.28, .54]
Domain Condition	-.02	.075	-.22	.829	[-.16, .13]
Shame × Entity Beliefs	.00	.036	.03	.979	[-.07, .07]
Shame × Domain Condition	.06	.065	.87	.388	[-.07, .18]
Entity Beliefs × Domain Condition	-.04	.043	-1.02	.310	[-.13, .04]
Shame × Entity Beliefs × Domain Condition	.10	.036	2.79	.006	[.03, .17]

Note. Overall model $df = 7, 189$. Three-way interaction $df = 1, 189$. ΔR^2 represents increase in R^2 as a result of the three-way interaction

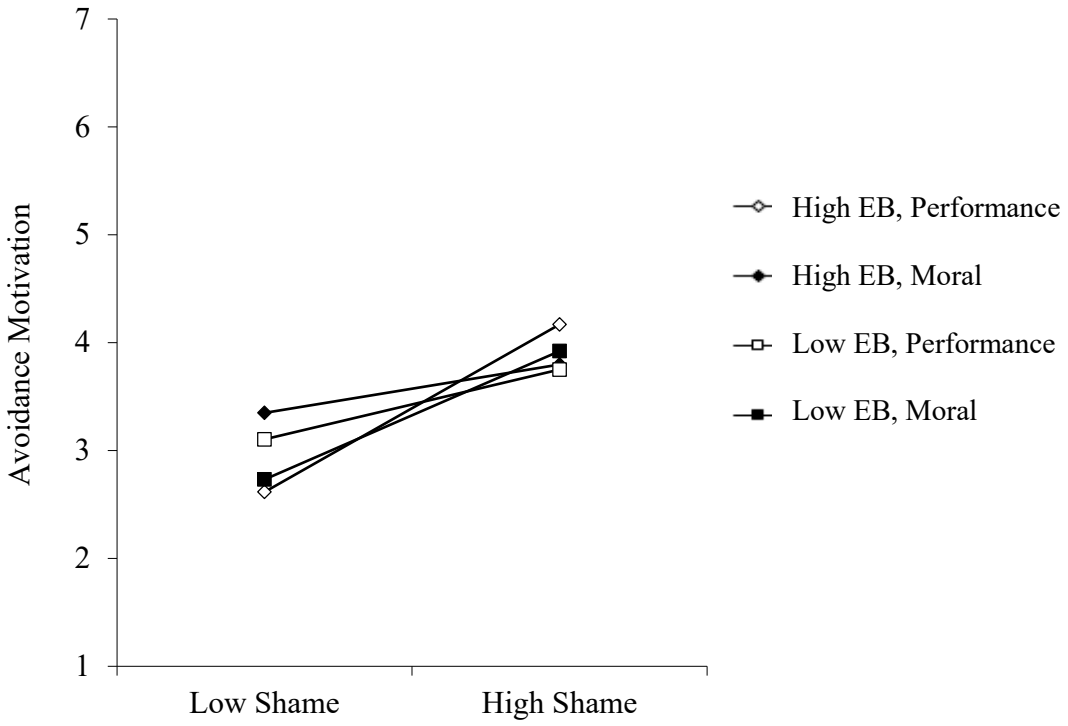

Figure 2.16. Three-way interaction between entity beliefs (EB), domain and shame on avoidance motivation.

Hypothesis 3b. Moderating Effect of Entity Beliefs on Relationship Between Shame and Repair Motivation

Contrary to the hypothesis, there were no significant three or two-way interactions on repair motivation (see Table 2.24). There was a significant positive main effect of shame on repair motivation, and no other main effects were significant.

Table 2.24

Results of Hierarchical Regression Analysis Predicting Repair Motivation with Shame, Entity Beliefs, Shame Domain Condition and Their Two- and Three-Way Interactions

Predictor	*B*	SE_B	*t*	*p*	$CI_{95\%}$
	$R^2 = .24$, $F = 8.50$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .79$, $p = .374$				
Constant	3.44	.070	49.03	< .001	[3.30, 3.58]
Entity Beliefs	.00	.041	-.15	.880	[-.09, .07]
Shame	.43	.061	7.02	< .001	[.31, .54]
Domain Condition	-.06	.070	-.87	.388	[-.20, .08]
Shame × Entity Beliefs	.00	.034	-.15	.878	[-.07, .06]
Shame × Domain Condition	-.09	.060	-1.56	.120	[-.21, .02]
Entity Beliefs × Domain Condition	.01	.040	.15	.883	[-.07, .09]
Shame × Entity Beliefs × Domain Condition	-.03	.033	-.89	.374	[-.10, .04]

Note. Overall model $df = 7, 189$. Three-way interaction $df = 1, 189$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

Hypothesis 3c. Moderating Effect of Entity Beliefs on Relationship Between Shame and Self-Improvement Motivation

Contrary to predictions there were no significant three or two-way interactions on self-improvement motivation (see Table 2.25). Shame had a significant positive main effect on self-improvement motivation, while entity beliefs had a significant negative relationship with self-improvement motivation.

Table 2.25

Results of Hierarchical Regression Analysis Predicting Self-Improvement Motivation with Shame, Entity Beliefs, Shame Domain Condition and Their Two- and Three-Way Interactions

Predictor	*B*	SE_B	*t*	*p*	$CI_{95\%}$
	$R^2 = .38$, $F = 16.71$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .41$, $p = .523$				
Constant	3.68	.065	56.42	< .001	[3.55, 3.81]
Entity Beliefs	-.08	.038	-2.04	.043	[-.15, <.01]
Shame	.57	.056	10.19	< .001	[.46, -.68]
Domain Condition	-.10	.065	-1.60	.112	[-.23, .02]
Shame × Entity Beliefs	.02	.031	.48	.630	[-.05, .08]
Shame × Domain Condition	<.01	.056	.06	.956	[-.11, .11]
Entity Beliefs × Domain Condition	-.03	.038	-.67	.506	[-.10, .05]
Shame × Entity Beliefs × Domain Condition	.02	.031	.64	.523	[-.04, .08]

Note. Overall model $df = 7, 189$. Three-way interaction $df = 1, 189$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

Hypothesis 3d. Moderating Effect of Entity Beliefs on Relationship Between Shame and Bipolar Approach Scale

There was a significant three-way interaction between shame, entity beliefs and shame domain (see Table 2.26 and Figure 2.17). However, when this was probed, there was not a significant two-way interaction between shame and entity beliefs within either the moral shame, $B = 0.17$, $SE = .098$, $p = .078$, $CI_{95\%}$ [-0.02, 0.37], or the performance shame conditions, $B = -0.14$, $SE = .122$, $p = .265$, $CI_{95\%}$ [-0.38, 0.10]. Contrary to the hypothesis, there was no significant interaction between shame and entity beliefs on the bipolar approach scale[6].

[6] A binomial logistic regression was used to test the hypothesis on dichotomous approach choice. The three way interaction was not significant (see appendix E).

Table 2.26

Results of Hierarchical Regression Analysis Predicting Bipolar Approach Scale with Shame, Entity Beliefs, Shame Domain Condition and Their Two- and Three-Way Interactions on Bipolar Approach Scale

Predictor	*B*	SE_B	*t*	*p*	$CI_{95\%}$
	$R^2 = .10$, $F = 3.04$, $p = .005$, $\Delta R^2 = .02$, $\Delta F = 3.93$, $p = .049$				
Constant	4.32	.165	26.14	< .001	[3.99, 4.65]
Entity Beliefs	-.09	.095	-.90	.367	[-.27, .10]
Shame	.41	.143	2.88	.004	[.13, .69]
Domain Condition	.03	.165	.21	.838	[-.29, .36]
Shame × Entity Beliefs	.01	.079	.19	.852	[-.14, .17]
Shame × Domain Condition	-.25	.142	-1.73	.085	[-.53, .03]
Entity Beliefs × Domain Condition	-.14	.095	-1.44	.152	[-.32, .05]
Shame × Entity Beliefs × Domain Condition	-.16	.078	-1.98	.049	[-.31, <.01]

Note. Overall model $df = 7, 189$. Three-way interaction $df = 1, 189$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

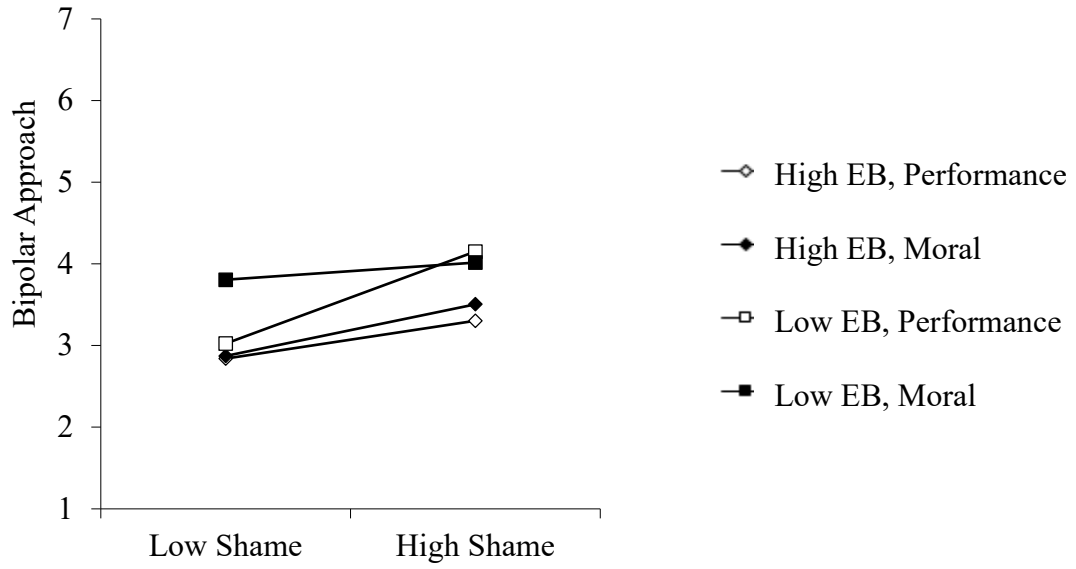

Figure 2.17. Three-way interaction of entity beliefs (EB), domain and shame on bipolar approach score.

So far, these results suggest that contrary to predictions, entity beliefs and shame do not interact to predict repair motivation, self-improvement motivation or the bipolar approach scale, regardless of the shame domain involved. Entity beliefs do interact with shame to predict avoidance, however this is only in the moral shame condition, and in a direction opposite to predictions: shame and avoidance motivation have a positive relationship when entity beliefs are low and a non-significant relationship when entity beliefs are high.

Hypothesis 4. Moderating Effect of Entity Beliefs on Relationship Between Shame and Psychological Distress

Contrary to the hypothesis, there were no significant interactions between shame and entity beliefs on any psychological distress variables (see Table 2.27). There were significant positive main effects of both shame and entity beliefs on all dependant variables.

Table 2.27

Results of Hierarchical Regression Analyses Predicting Psychological Distress with Shame, Entity Beliefs, Shame Domain Condition and Their Two- and Three-Way Interactions

	B	SE_B	*t*	*p*	$CI_{95\%}$
Depression	$R^2 = .12$, $F = 3.74$, $p = .001$, $\Delta R^2 = .01$, $\Delta F = 1.67$, $p = .198$				
Constant	5.21	.374	13.95	< .001	[4.47, 5.95]
Entity Beliefs	.47	.215	2.18	.030	[.05, .89]
Shame	1.36	.321	4.20	< .001	[.72, 1.99]
Domain	.43	.374	1.16	.165	[-.30, 1.17]
Shame × Entity Beliefs	.25	.178	1.39	.247	[-.10, .60]
Shame × Domain	.13	.322	.40	.690	[-.51, .76]
Entity Beliefs × Domain	.12	.215	.58	.563	[-.30, .55]
Shame × Entity Beliefs × Domain	.23	.177	1.29	.198	[-.12, .58]
Anxiety	$R^2 = .07$, $F = 2.09$, $p = .046$, $\Delta R^2 = .00$, $\Delta F = .22$, $p = .642$				
Constant	4.20	.326	12.89	< .001	[3.55, 4.84]
Entity Beliefs	.51	.188	2.73	.007	[.14, .88]
Shame	.51	.281	1.81	.072	[-.05, 1.06]
Domain	-.11	.326	-.33	.736	[-.75, .53]
Shame × Entity Beliefs	.21	.155	1.33	.185	[-.10, .51]
Shame × Domain	-.42	.280	-1.49	.138	[-.97, .13]
Entity Beliefs × Domain	.04	.187	.20	.839	[-.33, .41]
Shame × Entity Beliefs × Domain	.07	.154	.47	.642	[-.23, .38]
Stress	$R^2 = .11$, $F = 3.27$, $p = .003$, $\Delta R^2 = .01$, $\Delta F = 1.15$, $p = .285$				
Constant	6.22	.353	17.59	< .001	[5.52, 6.92]
Entity Beliefs	.64	.204	3.12	.002	[.23, 1.04]

Shame	1.07	.305	3.51	< .001	[.47, 1.67]
Domain	-.03	.354	-.08	.937	[-.73, .67]
Shame × Entity Beliefs	.22	.169	1.33	.184	[-.11, .56]
Shame × Domain	.14	.304	.47	.639	[-.46, .74]
Entity Beliefs × Domain	-.05	.204	-.26	.793	[-.46, .35]
Shame × Entity Beliefs × Domain	.18	.168	1.07	.285	[-.15, .51]

Note. Overall model $df = 7, 189$. Three-way interaction $df = 1, 189$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

Hypothesis 5a. Moderating Effect of Reparability on Relationship Between Shame and Avoidance Motivation

Contrary to the hypothesis, there was not a significant interaction between shame and perceived reparability on avoidance motivation (see Table 2.28). While there were no other significant interactions, there was a significant positive main effect of shame and a significant negative main effect of perceived reparability on avoidance motivation.

Table 2.28

Results of Hierarchical Regression Analysis Predicting Avoidance Motivation with Shame, Perceived Reparability, Shame Domain Condition and Their Two- and Three-Way Interactions

Predictor	*B*	SE_B	*t*	*p*	$CI_{95\%}$
	$R^2 = .20, F = 6.69, p < .001, \Delta R^2 = .01, \Delta F = 2.41, p = .122$				
Constant	3.45	.080	43.13	< .001	[3.29; 3.61]
Perceived Reparability	-.16	.054	-2.85	.005	[-.26; -.05]
Shame	.29	.071	4.13	< .001	[.15; .43]
Domain Condition	-.09	.080	-1.17	.244	[-.25; .06]
Shame × Perceived Reparability	-.01	.042	-.24	.808	[-.09; .07]
Shame × Domain Condition	.07	.071	1.03	.303	[-.07; .21]

Perceived Reparability × Domain Condition	.01	.055	.23	.816	[-.10; .12]
Shame × Perceived Reparability × Domain Condition	-.06	.042	-1.55	.122	[-.15; .02]

Note. Overall model $df = 7, 189$. Three-way interaction $df = 1, 189$. ΔR^2 represents change in R^2 due to three way interaction.

Hypothesis 5b. Moderating Effect of Reparability on Relationship Between Shame and Repair Motivation

Contrary to the hypothesis, there was not a significant interaction between shame and perceived reparability on self-improvement motivation (see Table 2.29). There were also no other significant interactions. Shame had a significant positive main effect.

Table 2.29

Results of Hierarchical Regression Analysis Predicting Repair Motivation with Shame, Perceived Reparability, Shame Domain Condition and Their Two- and Three-Way Interactions

Predictor	*B*	SE_B	*t*	*p*	$CI_{95\%}$
	$R^2 = .25, F = 9.24, p < .001, \Delta R^2 = .01, \Delta F = 1.24, p = .266$				
Constant	3.45	.074	46.57	< .001	[3.31; 3.60]
Perceived Reparability	-.04	.051	-.71	.481	[-.14; .06]
Shame	.41	.066	6.28	< .001	[.28; .54]
Domain Condition	-.08	.074	-1.14	.255	[-.23; .06]
Shame × Perceived Reparability	.01	.039	.17	.865	[-.07;.08]
Shame × Domain Condition	-.04	.066	-.60	.550	[-.17; .09]
Perceived Reparability × Domain Condition	.08	.051	1.49	.139	[-.02; .18]
Shame × Perceived Reparability × Domain Condition	-.04	.039	-1.12	.266	[-.12; .03]

Note. Overall model $df = 7, 189$. Three-way interaction $df = 1, 189$. ΔR^2 represents change in R^2 due to three way interaction.

Hypothesis 5c. Moderating Effect of Reparability on Relationship Between Shame and Self-Improvement Motivation

Contrary to the hypothesis, there was not a significant interaction between shame and reparability on self-improvement motivation. There were no other significant interactions (see Table 2.30). There was a significant positive main effect of shame.

Table 2.30

Results of Hierarchical Regression Analysis Predicting Self-Improvement Motivation with Shame, Perceived Reparability, Shame Domain Condition and Their Two- and Three-Way Interactions

Predictor	*B*	SE_B	*t*	*p*	$CI_{95\%}$
	$R^2 = .38$, $F = 16.47$, $p < .001$, $\Delta R^2 < .01$, $\Delta F = .09$, $p = .760$				
Constant	3.71	.070	53.30	< .001	[3.57; 3.85]
Perceived Reparability	-.05	.048	-1.02	.310	[-.14; .05]
Shame	.55	.062	8.87	< .001	[.43; .67]
Domain Condition	-.13	.070	-1.84	.067	[-.27; .01]
Shame × Perceived Reparability	.04	.036	1.05	.295	[-.03; .11]
Shame × Domain Condition	.01	.062	.13	.897	[-.11; .13]
Perceived Reparability × Domain Condition	.01	.048	.29	.770	[-.08; .11]
Shame × Perceived Reparability × Domain Condition	-.01	.036	-.31	.760	[-.08; .06]

Note. Overall model $df = 7, 189$. Three-way interaction $df = 1, 189$. ΔR^2 represents change in R^2 due to three way interaction.

Hypothesis 5d. Moderating Effect of Reparability on Relationship Between Shame and Bipolar Approach

There was not a significant three-way interaction between shame severity, perceived reparability and shame domain on the bipolar approach scale, but there was an unpredicted significant two-way interaction between perceived reparability and shame domain (see Table

2.31 and Figure 2.18). This was such that, in the moral shame condition, perceived reparability had a significant negative relationship with bipolar approach (B = -.71, p < .001), but in the performance shame condition perceived reparability did not have a significant relationship with bipolar approach (B = -.05, p = .706)[7].

Table 2.31

Results of Hierarchical Regression Analysis Predicting Bipolar Approach Score with Shame, Perceived Reparability, Shame Domain Condition and Their Two- and Three-Way Interactions

Predictor	B	SE_B	t	p	$CI_{95\%}$
	R^2 = .12, F = 3.57, p = .001, ΔR^2 = .00, ΔF = .41, p = .651				
Constant	4.31	.175	24.63	< .001	[3,96; 4.65]
Perceived Reparability	-.29	.120	-2.38	.018	[-.52; -.05]
Shame	.27	.155	1.74	.084	[-.04; .57]
Domain Condition	.06	.175	.334	.738	[-.29; .40]
Shame × Perceived Reparability	.05	.091	.55	.579	[-.13; .23]
Shame × Domain Condition	-.04	.155	-.23	.820	[-.34; .27]
Perceived Reparability × Domain Condition	.30	.120	2.48	.01	[.06; .53]
Shame × Perceived Reparability × Domain Condition	-.04	.091	-.45	.651	[-.22; .14]

Note. Overall model df = 7, 189. Three-way interaction df = 1, 189. ΔR^2 represents change in R^2 due to three way interaction.

[7] A binomial logistic regression was used to test the hypothesis on dichotomous approach choice and the same pattern of results was evident (see appendix E).

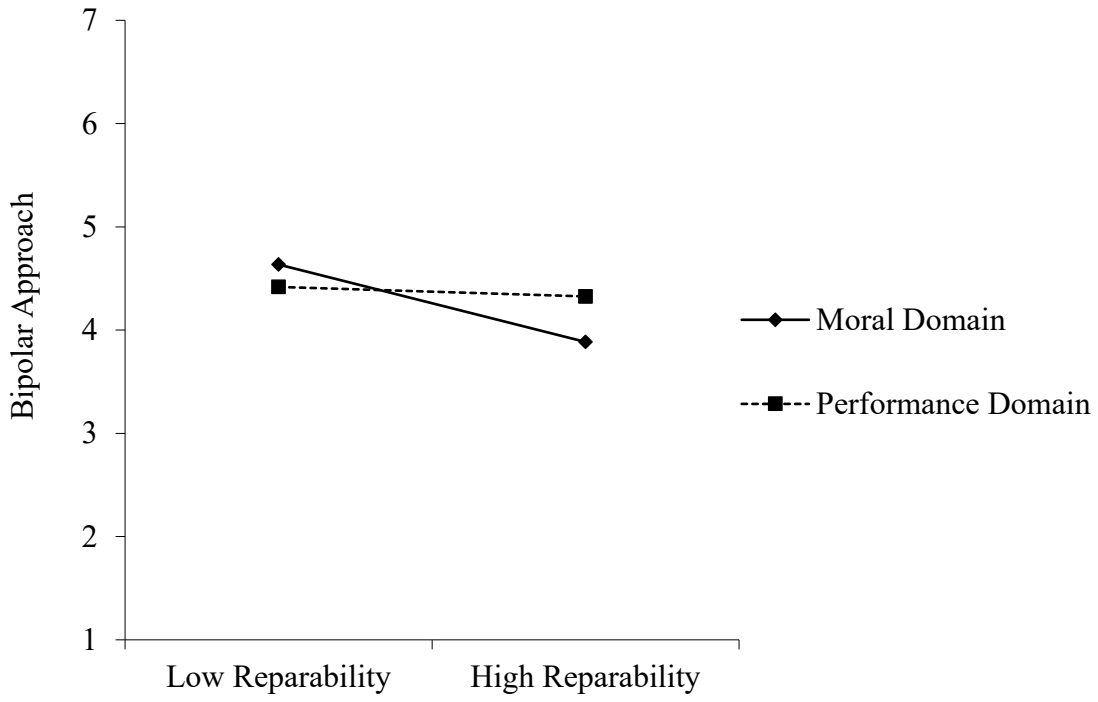

Figure 2.18. Interaction between shame domain and perceived reparability on bipolar approach score.

Collectively, these results suggest that perceived reparability does not moderate the relationship between shame and any responses to shame, regardless of shame domain.

Hypothesis 6. Moderating Effect of Reparability on Relationship Between Shame and Psychological Distress

Contrary to the hypothesis, shame did not significantly interact with perceived reparability to predict psychological distress (see Table 2.32). Perceived reparability had a significant negative main effect across all psychological distress variables and there were no other significant main effects.

Table 2.32

Results of Hierarchical Regression Analyses Predicting Psychological Distress with Shame, Perceived Reparability, Shame Domain Condition, and Their Two- and Three-Way Interactions

	B	SE_B	*t*	*p*	$CI_{95\%}$
Depression	$R^2 = .33$, $F = 13.30$, $p < .001$, $\Delta R^2 = .04$, $\Delta F < .01$, $p = .832$				
Constant	5.17	.350	14.75	< .001	[4.47; 5.86]
Perceived Reparability	-1.99	.240	-8.31	< .001	[-2.47; -1.52]
Shame	.13	.312	.42	.674	[-.48; .75]
Domain	.47	.351	1.33	.187	[-.23; 1.16]
Shame × Perceived Reparability	-.07	.182	-.39	.697	[-.43; .29]
Shame × Domain	.15	.312	.47	.638	[-.47; .76]
Perceived Reparability × Domain	.05	.241	.21	.836	[-.42; .53]
Shame × Perceived Reparability × Domain	.04	.182	.21	.832	[-.32; .40]
Anxiety	$R^2 = .21$, $F = 7.28$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .12$, $p = .725$				
Constant	4.19	.320	13.07	< .001	[3.55; 4.82]
Perceived Reparability	-1.45	.219	-6.63	< .001	[-1.88; -1.02]
Shame	-.40	.284	-1.42	.156	[-.96; .16]
Domain	-.09	.321	-.28	.783	[-.72; .54]
Shame × Perceived Reparability	.01	.167	.08	.938	[-.32; .34]
Shame × Domain	-.18	.283	-.64	.524	[-.74; .38]
Perceived Reparability × Domain	.36	.220	1.62	.106	[-.08; .79]
Shame × Perceived Reparability × Domain	-.06	.166	-.35	.725	[-.39; .27]
Stress	$R^2 = .22$, $F = 7.58$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .02$, $p = .888$				

Constant	6.31	.353	17.85	< .001	[5.61; 7.00]
Perceived Reparability	-1.57	.242	-6.50	< .001	[-2.05; -1.09]
Shame	.05	.313	.17	.869	[-.57; .67]
Domain	.04	.354	.11	.913	[-.66; .74]
Shame × Perceived Reparability	.12	.184	.65	.515	[-.24; .48]
Shame × Domain	.34	.313	1.09	.277	[-.28; .96]
Perceived Reparability × Domain	.23	.243	.95	.342	[-.24; .71]
Shame × Perceived Reparability × Domain	.03	.184	.14	.888	[-.33; .39]

Note. Overall model $df = 7, 189$. Three-way interaction $df = 1, 189$. ΔR^2 represents change in R^2 due to three way interaction.

Discussion

Contrary to predictions and aligned with Study 2.3, there was no evidence of a curvilinear relationship between shame and responses, further reducing confidence in the significant curvilinear findings of Study 2.1 and 2.2. Entity beliefs moderated the relationship between shame and avoidance motivation. However, this was only the case in the moral shame condition, and in a direction opposite to predictions: shame and avoidance motivation had a positive relationship when entity beliefs are low and a non-significant relationship when entity beliefs were high. There was no evidence that entity beliefs moderated the relationship between shame and approach-oriented responses (i.e., repair motivation, self-improvement motivation or bipolar approach), regardless of the shame arose from a moral or performance transgression. Furthermore, entity beliefs did not influence the relationship between shame and psychological distress.

When perceived reparability was self-reported, the hypotheses were also not supported. Perceived reparability did not moderate the relationship between shame and responses to shame, nor shame and psychological distress. Of particular note is that the

current study did not replicate the significant interactions observed in Study 2.3 between shame and perceived reparability on repair and self-improvement motivations. This suggests that even if entity beliefs did influence the perceived reparability of shame as theorised, they still may not have influenced the relationship between shame and responses or psychological distress.

Regarding the role of shame domain in determining responses to shame, shame severity did not interact with shame domain in the current study. This suggests that the two-way interactions found in the previous studies are likely to be attributable to the differing levels of shame induced in the hypothetical scenarios, rather than differences in how a person responds to shame arising moral versus performance failures.

General Discussion

The current studies aimed to investigate whether self-theories — due to their proposed influence on perceived reparability — affect shame's relationship with reparation responses and psychological distress. The studies consistently showed that shame had a significant positive relationship with repair, self-improvement and avoidance motivations, however the effects of self-theories and perceived reparability on these relationships were either small or non-significant. Furthermore, there was no evidence of self-theories influencing perceived reparability, nor moderating the relationship between shame and psychological distress. An adjunct aim of these studies was to investigate the possibility of curvilinear relationships between shame and responses. Results pertaining to these curvilinear relationships were mixed, with earlier studies showing the positive relationship between shame and responses become weaker as shame increased for self-improvement, avoidance and/or repair motivations, and later studies showing non-significant effects.

Contrary to predictions, self-theories did not moderate shame's relationship with repair or self-improvement motivations. This finding is at odds with theoretical reasoning that

self-theories — because of their implications for the perceived changeability and in turn reparability of the self — either encourage or deter self-improvement and repair strategies following transgressions. Past research supported this proposition. Entity theorists were found to be more likely to engage in activities that make them feel better without addressing the cause of their failure (Beer, 2002; Nussbaum & Dweck, 2009) and less likely to invest energy and effort into strategies that improve their failure-relevant abilities than incremental theorists (Blackwell et al., 2007; Hong et al., 1999). A possible explanation for the current results is that self-theories do not influence whether a person tries to make amends or not, but more so *how* they make amends: entity theorists still seek to repair their self-esteem, even if through indirect routes (e.g., repeating an already mastered tutorial; Nussbaum & Dweck, 2009). In turn, perhaps the lack of interaction between shame and entity beliefs on repair motivations is understandable: both entity and incremental theorists may endorse an item such as "I tried to do something after the event to make it better" but what that "something" is may be the difference between the groups. This reasoning does not quite apply as easily to the self-improvement motivations. I would expect that someone who feels ashamed, and also holds the belief that their characteristics are unchangeable, would be less motivated to change themselves after the event in comparison to someone who holds the belief that their characteristics can be changed. However, given self-improvement motivation was measured, not self-improvement behaviour, it may be that both groups are equally motivated to change themselves following a shameful event, but may differ in the efforts they invest in doing so.

There were mixed results regarding the influence of self-theories on the relationship between shame and avoidance motivation. When self-theories were manipulated (i.e., Study 2.2 and 2.3) shame did not interact with self-theories to predict avoidance, whereas when self-theories were measured (i.e., Study 2.1 and 2.4) an interaction was found. This suggests that self-theories do not provide a causal mechanism that explain when shame leads to

motivation to avoid, but rather may be associated with other variables that could result in this relationship (e.g., pessimism or self-efficacy). The experimental studies, however, also used hypothetical failures, whereas the correlational studies used real-world failures. As such, an alternative explanation is that self-theories only influence the relationship between shame and avoidance in the complexity of real-life scenarios.

The simple effects of the interaction between shame and entity beliefs on avoidance motivation differed between studies. In Study 2.1 (in the context of identity conflict), aligned with the hypothesis, there was a positive relationship between shame and avoidance when entity beliefs were high, and this relationship became smaller when entity beliefs were low. However, in Study 2.4, there was only a significant interaction in the moral condition, and this was such that there was a non-significant relationship when entity beliefs were high and a significant positive relationship between shame and avoidance when entity beliefs were low. Why would there be a significant positive relationship between shame and avoidance for entity theorists in response to shame arising from an identity conflict, but not an interpersonal transgression? Perhaps it is because the former event is likely be reoccurring. Identity conflict arises when two important social groups have incompatible normative standards; to live up to the ideal of both groups simultaneously is difficult or impossible. The repeated nature of identity conflict may result in a more profound sense of needing to change the self than an isolated transgression. In turn, the perceived changeability of the self (self-theories) may be more likely to have an impact on responses in the former rather than the later scenario. Of course, this does not yet explain why the relationship would be opposite in the interpersonal scenario.

Contrary to theorising presented at the beginning of this chapter, the role of perceived reparability in moderating the relationship between shame and responses is questionable. Across the studies, there was no evidence that self-theories influenced perceived reparability.

And, even if they had, given perceived reparability mostly did not moderate the relationship between shame and responses, the results may not have been that different. The lack of influence of perceived reparability on the relationship between shame and responses contradicts previous research. For example, in their meta-analysis, Leach and Cidam (2015) show that the availability of a repair option is a substantial moderator between shame and shame responses — when an avenue for repair is available shame is more likely to result in approach; when a repair option is not available shame is less likely to results in approach. However, in their meta-analysis reparability was coded as the *opportunity* to repair the cause of the shame. For example, studies that provided the opportunity to indicate endorsement for a collective apology or compensation (e.g., Bobowink et al., 2010), or to give coins in a coin dilemma game to someone who knew of their failure (e.g., DeHooge et al., 2008, Studies 2.1 & 2.3), were coded as more reparable. On the other hand, studies that did not provide this opportunity (i.e., provided an opportunity for participants to cooperate with or be prosocial toward those who did *not* know about their failure, e.g., Chao, Cheng & Chiou, 2011, 2012; De Hooge et al., 2007) were coded as less reparable. Perhaps these results are not generalizable to when reparability is measured as a subjective perception, rather than as an objective opportunity. This could be because in previous research (and the meta-analysis) participants are presented with the opportunity to undo the harm whereas in the current research the reparability of the self and social-image was measured. Perhaps the ability to undo harm impacts on a person's choice to do so, whereas one's image may be viewed as something that may mend over time (e.g., "this will pass") rather than affecting a person's choice to actively engage in repairing the situation.

Another mostly null finding within the current results is that of the curvilinear relationship between shame and responses. Curvilinear relationships that support the notion of higher repair motivations and approach at moderate levels of shame were found in Study

2.1 and 2.2, but these findings were not replicated in Study 2.3 or 2.4. This is despite studies 2.2 and 2.3 being very similar — the hypothetical shame-scenarios and the articles used to manipulate self-theories were identical. Given the repeated tests, the significant results found in Study 2.1 and 2.2 may represent a Type 1 error and may not be trustworthy.

A more consistent result is the linear relationship between shame and responses: shame positively correlated with motivation to repair, improve the self and avoid in all studies. Curiously, avoidance and repair — rather than acting as opposite ends of the same continuum — often positively correlated with each other. However, positive correlations between approach and avoidance scales have been evident in previous theorising (e.g., Lewin, 1935) and studies of social responses. For example, Elliot and colleagues (2006) measured social approach and avoidance goals and found positive correlations in both studies (r = .40 and .40). This was also the case in Gable's (2006) studies, which also measured approach and avoidance social goals and found strong positive correlations (r = .77 and .78). Gable (2006) explains this positive correlation by stating that both approach and avoidance goals are likely to asses a combination of the general concerns for that social domain as well as the importance of the goal, and as such, if concerns are high and the goal is important, people may be motivated to both approach and avoid. In other words, high scores in both approach and avoidance reflect a desire to "fix it", whatever the means.

Shame's relationship with the bipolar approach scale varied between studies: the relationship was either non-significant (Study 2.2), negative (Study 2.3) or positive (Study 2.4). These differing results may arise due to different bi-polar choices on the approach scales between the studies. In Studies 2.2 and 2.3 the bipolar approach scales related to doing a specific activity (going to the gym where the friend will be, or presenting again). The actions that represented approach or making amends was defined by myself, the researcher, not the participant. If these actions did not fit with participants views on what approaching and

making amends would entail, perhaps they asked themselves "why would I?" and in turn the non-significant or negative relationship emerged. In Study 2.4, however, the approach scales related to generally amending the damage that was caused (i.e., "I tried to amend any damage that was caused"), and did not constrain participants to the researchers definition of what this would look like, in which case participants may have asked themselves "why wouldn't I?" and in turn the positive relationship emerged.

Furthermore, there was no support for the hypothesis that entity beliefs or perceived reparability moderate the relationship between shame and psychological distress. There was a significant positive main effect of entity beliefs and a significant negative main effect of perceived reparability on all psychological distress variables. However, given psychological distress was only measured within the cross-sectional studies (Studies 2.1 and 2.4), causality cannot be confirmed. It is possible that those with high levels of depression, anxiety, and stress may be more likely to perceive reparability as lower and themselves as more fixed than people without this psychological distress.

Recently, research has started to highlight the frequent small or null effects of self-theories (often referred to as "growth mindset") on participants' performance (Moreau & Macnamara, 2018). Li and Bates (2017) found either null or reverse effects when investigating whether mindset interventions influence student learning, ability and response to negative feedback. Studies that have measured self-theories (rather than manipulated self-theories through interventions) have also found null results. Bahnik and Varnka (2017) conducted a cross-sectional study with a large sample of university applicants (N = 5653). They investigated whether participants' self-theories related to their scores on their admission exams or number of attempts at the exam. They found that self-theories were not associated with number of admissions tests participants signed up for, and had a very small negatively associated with test outcomes (r = -.03). That is, believing that intelligence was malleable

was associated with *slightly* worse outcomes on the admissions test. A recent meta-analysis investigating the impact of self-theory interventions on academic achievement echoes these results, showing mostly small or null effects (Sisk, Burgoyne, Sun, Butler & Macnamara, 2018). The mostly non-significant results of the current research are in line with this bourgeoning research that questions the reliability and strength of the influence of self-theories on responses to failure.

Given this, future research may be best directed towards not necessarily pursuing the possibility of an effect of self-theories, but instead other factors that may influence shame's relationship with avoidance and approach responses, as well as psychological well-being. This research should heed the methodological lessons learnt within the current studies. For example, measures of approach and avoidance motivations are likely to co-occur and in turn should be accompanied by a more specific measure of behaviour (but whether this is a bipolar scale or dichotomous choice makes little difference to findings). Furthermore, this research has implications for how responses to shame are investigated. It suggests that in building our understanding of how people respond to their shame and why, we must consider the possibility that approach and avoidance can co-occur, and as such not treat the absence of one as the presence of the other.

In conclusion, the current research suggests that self-theories do not influence (or, if they do, to a very small degree) the relationship between shame and responses or psychological distress. The lack of significant effects are aligned with emerging research that downplays the reliability and strength of the effect of self-theories on motivation and behaviour. In the current studies, the lack of effect may be explained by self-theories not altering the perceived reparability of shame. However, it should be noted that perceived reparability also did not generally influence the relationship between shame and responses or psychological distress, highlighting the need for a better understanding of the role that the

availability vs. perception of repair options has for shame's relationship with approach and avoidance, as well as psychological distress.

CHAPTER 3 – The Influence of Social Identity Conflict on Shame Responses and Psychological Distress

Shame is a social emotion that alerts us to when we have acted in a way that is incongruent with the values of our social groups; it can motivate us to approach and repair any damage to our sense of social belonging. However, this approach-oriented response is less likely when options to repair are not available (Leach & Cidam, 2015). As such, investigating the social circumstances under which repair options are not available in daily-life may provide insight into when shame is less likely to be associated with approach-oriented responses, and in turn more likely to be associated with psychological distress (Chapter 1). One condition under which shame might be accompanied by an inability to repair the damage done is when a person experiences conflict between norms and expectations of different social identities. The first aim of the studies in this chapter is to investigate whether conflict between our social identities (i.e., *identity conflict*) can result in shame that is perceived as irreparable, and whether this perception results in less of an approach response and more of an avoidance response. The second aim is to investigate the implications this has for shame's relationship with psychological distress. Adjunct to these aims is to continue to test the possibility of a curvilinear relationship between shame and responses.

Shame is Associated with Status Hierarchies and Perception of Being Good Group Members

Shame has been shown to arise following multiple antecedents, such as poor performance, hurting others emotionally, and failing to meet others' expectations (Keltner, 1996). When analysing the antecedents to shame more broadly, however, shame can be thought of as an affective reaction to an individual contributing to an event that is incongruent with the values associated with their identity (Tracy & Robins, 2004; Turner,

Husman, & Schallert, 2002). In their process model of self-conscious emotions, Tracy and Robins (2004), for example, identified shame as arising when an event is relevant to and incongruent with their identity, and attribute this to a stable and global feature of themselves. Similarly, in a review of the literature on the triggers of shame amongst students, Turner et al. (2002) suggest that shame arises when a person perceives they have failed in a domain that is associated with their core values.

This theorising aligns with an evolutionary perspective of shame. Shame is hypothesised to have evolved to protect an individual in social environments organised by dominance hierarchies, to signal an individual's recognition of their inferior status in the face of competition (Fessler, 2007; Gilbert, 2000, 2007). Although shame cannot be recognised by facial expression alone, it is highly associated with submissive bodily postures, such as lowering of the face, gaze aversion and slumped shoulders (Gilbert, 2000; Tracy & Robins, 2004). These postures were a signal of forfeit to a higher-ranked individual, with the aim of avoiding the possibly fatal consequences of engaging in physical confrontation. These "shame displays" are evident in both human and non-human primates, suggesting that shame elicited by recognition of lower status is the ancestral form of the emotion (Fessler, 1999, 2007). With the development of human cognitive complexity, specifically systems for self-consciousness and self-evaluation, other scenarios also began to elicit shame displays (Fessler, 1999, 2007; Gilbert, 2007). As cultures became established, so did cultural norms and expectations. Conforming to these norms became vital to reap the potential benefits of cooperation and group membership. Potential benefits included access to resources that were vital for physical survival: food, territory, mating partners, and social allies (Barkow, 1989). Therefore, the recognition of the self's failure to conform to social norms and expectations also became an antecedent to shame.

Combining these evolved antecedents, shame signals threats to the social-self, which

include threats to an individual's social status or social bonds. How shame operates can be understood as analogous to Leary and Baumeister's (2000) socio-meter conception of self-esteem (de Hooge et al., 2011; Gruenewald et al., 2007; Nelissen et al., 2013; Woodyatt & Wenzel, 2014). That is, shame can be thought of as an acute affective reaction to threats to the social self. It is an emotional gauge that indicates to the self whether one is a good group member or relationship partner. This internal monitoring system is vital to ensure a person recognises when their social status or bonds are threatened, and in turn takes action to preserve their social self.

Humans are not members of only one social group, but rather can identify with varying social groups which collectively form a person's social identity (Tajfel, 1981; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). The norms and expectations of the groups that constitute a person's social identity then inform a person's sense of what is acceptable and appropriate as a group member (Fessler & Haley, 2003; Harris, 2007), and in turn what behaviours could be a precursor to shame. For example, committing a crime may elicit shame in a person who views themselves as a law-abiding citizen, but not within a person who values a criminal identity, such as a gang member. Thus, the types of behaviours that elicit shame may change depending on who a person identifies with, and the content of that group's norms.

In addition to the content of the group norms that constitute a person's social identity, the importance of those groups to a person's identity will also impact on whether violating a particular set of norms or expectations is likely to elicit shame. Group norms guide individuals' behaviour to varying extents depending on how fully they have integrated a group identity into their self-concept (Christensen, Rothgerber, Wood, & Matz, 2004; Jetten, Spears, & Manstead, 1997; Terry & Hogg, 1996; Turner et al., 1987). If a group is important and a central part of a person's identity, then the groups norms are more likely to be

psychologically salient and in turn influence behaviour (e.g., Mackie, Hamilton, Susskind, & Rosselli, 1996). For example, student norms concerning exercise and sun protective behaviours were found to influence college students' behaviour, but only for those who strongly identified with their university (Terry & Hogg, 1996). Furthermore, if a group is important to a person's identity, then not adhering to that group's norms is more likely to have consequences for how a person views himself or herself than if the group is less important. Wood, Christensen, Hebl, and Rothgerber (1997), for example, classified participants into groups based on whether those participants had personally adopted normative sex-typed social standards (i.e., whether they identified themselves as a typical member of their sex). When high-identifying participants experienced social relationships congruent with sex-role norms (i.e., dominant relationships for male participants and communal relationships for female participants), their self-concepts became more favourable than when they experienced norm incongruent relationships (i.e., dominant relationships for female participants and communal relationships for male participants). In contrast, people who did not identify with the stereotypes of their sex-role group were not affected by whether they experienced dominant or communal social relationships.

Thus, shame is an emotion that has evolved to signal when a person's social status or social bonds are threatened; it alerts a person to when they are no longer a good group member. Whether somebody is a good group member or not is determined by whether their behaviours align with the norms and values of their important social groups. In turn, shame arises when a person violates or fails to live up to the norms and standards of their important social groups. However, once a person experiences shame to signal their failure to live up to the norms of their salient social group, engaging in repair options may be difficult. Namely, when repairing social bonds or status in the transgressed social group may involve risking social bonds or status in another social group.

Exploring a Context Where Shame May Be Difficult to Repair: Social Identity Conflict

As people's social identities are complex and comprise of multiple groups, it is possible that people can find themselves in situations where they face competing or conflicting expectations and norms. Social identity conflict is a situation where incompatible normative standards for behaviour are simultaneously salient, either due to important group memberships that are chronically active (due to their centrality), or environmental factors leading to both being simultaneously salient (Hirsh & Kang, 2015). Identity conflicts can exist between various identity domains (Hirsh & Kang, 2015). For example conflict between work and family roles have been found to be common (e.g., experienced among 40% of employed parents), and this conflict was in turn associated with decreased well-being such as anxiety, stress, and fatigue (Allen, Herst, Bruck, & Sutton, 2000; Byron, 2005). Multicultural identities are also becoming more common. Studies have shown that multicultural individuals can feel pressure to identify with only one cultural group, and that if they were forced to do so (such as is commonly required on national surveys or applications) they experienced decreased self-esteem (Cheng & Lee, 2009; Townsend, Markus, & Bergsieker, 2009). Identity conflict can also emerge between gender identities and other roles, such as study or work. Settles (2004), for example, found that female students who perceived conflict between their gender identity and scientific education reported higher rates of depression and lower self-esteem.

Links between identity conflict and shame have been made. For example, Krugman (1995) suggested that shame amongst some men is a possible consequence of being unable to "live up to" competing internalised masculine group standards (p. 95). Shame arising from conflicts between sexual and religious identities have also been studied (Coyle & Rafalin, 2001; Schuck & Liddle, 2001). Schuck and Liddle (2001) interviewed lesbian, gay and

bisexual participants and found that nearly two-thirds reported conflicts between their religion and sexual orientation, and that reactions included shame, depression and suicidal ideation. Furthermore, Brook et al. (2008) found that self-discrepancy related emotions (i.e., guilt, self-contempt, uneasiness) fully mediated the relationship between the interaction of identity conflict variables (number of identities × identity harmony × importance of identities) and well-being.

Social Identity Conflict and Shame

Identity conflicts among important self-aspects would result in many situations where norm violations, and in turn experiences of shame, would be difficult or impossible to avoid. For individuals without coherent social identities, or "weakly integrated identities", the threat of shame is always present (Harris, 2007, p. 19). This is because the individual would be continually trying to adhere to salient contradictory normative frameworks, and often fail. Brown (2006) interviewed women about their shame experiences, and summarised that women often feel shame "as a web of layered, conflicting and competing expectations" (p. 46). Following that research, a relevant example may be a working mother who is expected to simultaneously prioritise both work and mothering commitments. Her professional identity and her mothering identity are both important to her self-concept, and therefore likely to be regularly simultaneously salient. If she is required to adhere to a norm within her work identity, in the form of increasing her work output, this may violate a norm within her mothering identity, such as spending afternoons and evenings with her child. In such a situation, she is unable to adhere to both normative frameworks, and therefore would be likely to violate one of her valued social identities and in turn experience shame.

Importantly, shame arising due to unavoidable norm violations would be complicated and difficult to resolve. It is likely that while adhering to norms within the transgressed group in order to repair social bonds and status, norms would be violated in the conflicting group. A

gay Jewish man, for example, explained he avoided disclosing his sexuality to his family as he feared his family would try to "fix" him by making him marry a woman (Coyle & Rafalin, 2001). Although this would repair his Jewish identity, it would threaten his sexual identity. This is an example of how conflicting social identities may result in unavoidable threats to the self, which would result in shame that may be difficult to repair.

As shame which is difficult to repair is likely to motivate avoidance (de Hooge et al., 2010), shame arising from conflicting normative frameworks is expected to have the same effect. Furthermore, as discussed in Chapter 1, a dominant avoidance response is the likely mechanism by which shame is associated with psychological distress. Therefore, it is predicted that shame arising from identity conflict is likely to motivate avoidance, and therefore associated with psychological distress. This is supported by the recent theorising of Hirsh and Kang (2015), who proposed that simultaneously salient conflicting norms would lead to activation of the Behavioural Inhibition System, with associated uncertainty and anxiety.

Given that shame arising from identity conflict is likely to be perceived as somewhat irreparable, a positive correlation between shame and avoidance motivation, and a negative correlation between shame and repair motivation are likely. However, another possibility is that shame may have a curvilinear relationship with avoidance and repair motivations. As discussed in previous chapters, there may be a "sweet spot" where shame is at a moderate level to motivate repair without such a task seeming either not worthwhile or overwhelming.

Shame arising from identity conflict is likely to be perceived as particularly difficult to repair when the conflict involves identities with *highly* incompatible normative standards, or, in other words, when the conflict is intense. The perceived reparability of the situation is likely to be lower when the group norms of the two identities have a high intensity of conflict (e.g., homosexual identity conflicting with strict religious identity) than when the intensity of

the conflict is less intense (e.g., student identity with party-goer identity). This is because when group norms have a high degree of conflict, enacting available repair options is likely to lead to further shame. For example, although norms of a student identity and party-goer identity may conflict at times (e.g., during exam-time), both have norms that accommodate the other at times (e.g., student drinking culture). On the other hand, it is difficult to imagine a fundamental Christian or Muslim religious identity accommodating a sexual identity that it views as sinful. As such, it is likely that identity conflicts that involve highly incompatible normative standards (i.e., have high *conflict intensity*) would elicit shame that is perceived as irreparable, and in turn lead to avoidance motivations.

The importance of the conflicting identities to the person's self-concept may also influence the relationship between shame and avoidance, but its influence would differ depending on the intensity of the conflict between the identities. When the intensity of the conflict is low, it is likely that if highly important identities are involved in the conflict this would increase the likelihood that a person would enact available repair options in comparison to when the conflicting identities are less important. After all, the potential rewards would be higher if identities are important compared to less important (i.e., increasing belongingness within important groups) and the likelihood of success would be high given the intensity of the conflict is low. However, when the intensity of the conflict is high, it is likely that if important identities are involved in the conflict this would increase avoidance motivations in comparison to when the conflicting identities are less important. That is, the importance of the identities is likely to contribute to perceived risks of enacting tenuous repair options. After all, if intensity is high, the likelihood of successful repair action is unlikely, and it may not be worth taking such a risk on important identities.

The Current Research

This research investigates how and when shame may lead to avoidance, rather than

approach-oriented responses and whether this has implications for the relationship between shame and well-being. In both studies, I used an online retrospective survey design to allow the examination of real-world experiences of identity conflicts and measure how they relate to shame, shame's perceived reparability and responses, and psychological distress. The aims of the studies are to investigate whether the relationships between shame and responses to shame are moderated by the intensity of identity conflict and the importance of conflicting identities, and to investigate the impact the intensity of identity conflict and the importance of conflicting identities on psychological distress. As per the previous chapter, an adjunct aim will be to test the possibility of a curvilinear relationship between shame and responses. It is hypothesised that:

Hypotheses

Hypothesis 1. Overall, shame will be positively related to avoidance motivation and negatively related to repair motivation.

Hypothesis 2. There will be a significant curvilinear relationship between shame and avoidance, such that both low and high shame will be associated with higher avoidance than moderate shame (i.e., a "U" shaped relationship). The inverse will be true for repair, such that both low and high shame are associated with lower approach than moderate shame (i.e., an inverted "U" shaped relationship)[8].

Hypothesis 3. Avoidance will be positively related to depression, anxiety and stress; repair will be negatively related to depression, anxiety and stress.

Hypothesis 4. When identity conflict intensity is low, shame and avoidance will have a negative relationship, and this negative relationship between shame and avoidance will be stronger when identities are important compared to not important. On the other hand, when

[8] Given Study 3.2 shares the same data as Study 2.1 this hypothesis has previously been tested for the data of Study 3.2. As such this hypothesis will only be tested in Study 3.1

identity conflict intensity is high, shame and avoidance will have a positive relationship, and this positive relationship would be stronger when identities are important compared to not important.

The opposite will be true for repair. That is, when identity conflict intensity is low, shame and repair will have a positive relationship, and this positive relationship between shame and repair will be stronger when identities are important compared to not important. On the other hand, when identity conflict intensity is high, shame and repair will have a negative relationship, and this negative relationship would be stronger when identities are important compared to not important.

Hypothesis 5. Given that avoidance is hypothesised to positively predict psychological distress (i.e., depression, anxiety and stress), shame, identity importance and the intensity of the identity conflict are also expected to interact to predict psychological distress. That is, when identity conflict intensity is low, shame and psychological distress will have a negative relationship, and this negative relationship between shame and psychological distress will be stronger when identities are important compared to not important. On the other hand, when identity conflict intensity is high, shame and psychological distress will have a positive relationship, and this positive relationship would be stronger when identities are important compared to not important.

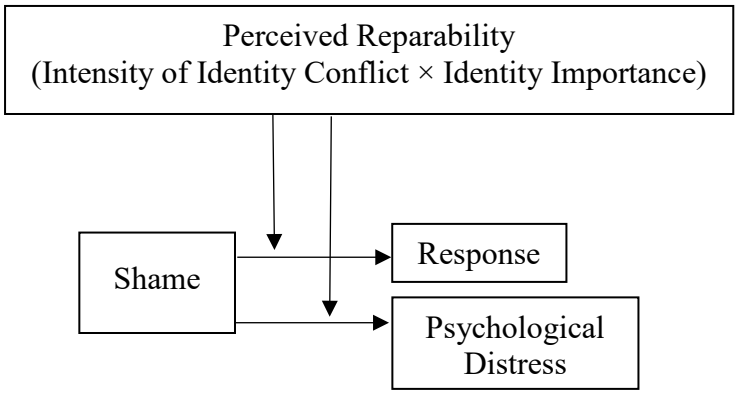

Figure 3.1. *Identity importance and intensity of identity conflict are proposed to moderate shame's relationship with responses and psychological distress.*

Study 3.1

Method

Participants

Two hundred and sixty-three participants were recruited from Flinders University via the University's research participant pool (in which case they were reimbursed $10 for their time) or the University website (in which case participation was not reimbursed). Once surveys of participants who had withdrawn (N= 98[9]) were removed, missing data was acceptably low < 2.5% (Tabachnick & Fidell, 2012). This left 165 participants (75% female), aged 17 – 67 years (M = 27.66, SD = 9.54) with analysable data.

Statistical Power

A sensitivity analysis was conducted using the GPower software package (Faul & Erdfelder, 1992). Based on a 7 predictor variable equation as a baseline, with alpha set at .05 and 145 participants (i.e., the number of participants who reported an identity conflict) the analysis suggested that there was adequate power (.80) to detect an R^2 of .05, a small to medium effect.

Materials and Procedure[10]

Demographic details. Participants were asked their age in years and their gender.

Social identity selection. Adapted from Brook, Garcia and Fleming (2008), participants were provided with an explanation of what social identities were, and asked to

[9] N = 57 participants withdrew prior to answering any questions, N = 12 withdrew after providing their age and sex, N = 21 withdrew before indicating whether they experienced an identity conflict or not, N = 8 withdrew prior to completing the dependant variable scales (i.e., motivations and DASS-21, N = 8). The majority of these incomplete surveys (86%) were by participants recruited via the University website that did not involve financial reimbursement. In turn, this large number of incomplete surveys may be due to participants entering the survey due to curiosity without intention or motivation to continue. Another possibility is that participants felt uncomfortable answering questions about their social identities. I did not use the University website as a recruitment source again with this thesis.

[10] Trait shame was also measured within the study. Participants rated the extent to which they experience various emotions in their day-to-day life on a response scale (1 – *very slightly or not at all* to 5 – *very much*). A 4-item trait shame scale was compiled of the items: ashamed, disgusted with myself, like I can't face myself and like I want to sink to the ground. This measure was included as an exploratory measure and was not relevant to the hypotheses.

list up to six of their most important social groups and/or roles (see appendix F for instructions provided to participants).

Identity importance. Participants were then asked to rate the importance of each of the identities they had listed. The identities were piped into the Importance to Identity Subscale of the Collective Self-Esteem Scale (Luhtanen & Crocker, 1992). This subscale consisted of 4 items for each identity listed: "Overall, my group/role [piped text] has very little to do with how I feel about myself" (reversed), "The group/role [piped text] is an important reflection of who I am", "The group/role [piped text] is unimportant to my sense of what kind of person I am" (reversed), and "In general, belonging to the group/role [piped text] is an important part of my self-image". They were asked to rate their agreement with these statements on a response scale (1 = *strongly disagree* to 7 = *strongly agree*). An identity importance score was calculated by averaging the four items for each conflicting identity (α = .81 - .85), and then adding the scores of the two identities which were described to conflict by the participant.

Identity conflict presence. Participants were provided with an explanation of identity conflict (see appendix G) and asked if they had experienced identity conflict. If participants responded "No" to this question, they were forwarded to the *21-item Depression Anxiety and Stress Scale* (Lovibond & Lovibond, 1995) and then finished the study. If participants responded "Yes" to this question, they went on to complete all remaining measures.

Identity conflict frequency. Participants were asked, "How frequently do you experience conflict between your groups/roles?" They provided their responses on a response scale ranging from "Daily" (1) – "Less than once a month" (6). Scores were reverse coded such that higher scores represented higher frequency.

Identity conflict description. Participants were asked to indicate two of their identities that conflicted, and to describe how the groups/roles conflicted.

Identity conflict intensity. I measured participants' perception of the severity of conflict between their two conflicting groups by reverse coding Brook, Garcia, and Fleming (2008) identity harmony measure. Participants were asked "Please think about these two aspects of your identity [piped text] and [piped text], and answer the following questions". The first response scale, originally developed by Thompson and Werner (1997), read: "Membership in one group or role has a very harmful or conflictual effect on the other" (1) to "Membership in one group or role has a very facilitative or helpful effect on the other" (5). The second response scale read, "Membership in one group or role always takes up so much time and energy that it makes it hard to fulfil the expectations of the other group or role" (1) to "Membership in one group or role always frees up time and energy for me to fulfil the expectations of the other group or role" (5). The third response scale read, "The two groups or roles always expect conflicting behaviours from me" (1) to "The two groups or roles always expect the same behaviours from me" (5). Scores were reverse coded such that higher scores represented more intense identity conflict. Unlike previous studies which have employed this measure (Brook et al., 2008), the three items were not internally consistent (α = .43). As such, the item that reflected general conflict intensity was used as a measure of identity conflict intensity: "Membership in one group or role has a very facilitative or helpful effect on the other" (1) - "Membership in one group or role has a very harmful or conflictual effect on the other" (5). This item was chosen because the other two items focused on time conflict and norm conflict, respectively, so choosing an item that discussed the intensity of the conflict in more general way avoided narrowing the operationalisation to focus on either time or norm conflicts.

Shame. To measure the emotional consequences of instances of identity conflict, participants were asked to, "Think about a time when you have recently experienced a conflict between the groups/roles [piped text] and [piped text]. Mark the degree to which you

were experiencing each of the following emotions." Amongst other emotion items, participants were presented with four shame items — ashamed, disgusted with myself, I feel like I can't face myself, and I feel like I want to sink to the ground — and asked to respond on a response scale (1 = *very slightly or not at all* to 5 = *very much*). A shame scale (α = .77) was compiled from an average of the four scores.

Avoidance and repair responses. To measure how participants responded to their identity conflict, they were asked, "You previously indicated a conflict between the roles/groups [piped text] and [piped text]. When you've been in situations where you experienced the conflict, how well do these statements reflect how you responded?". Participants were presented with a range of statements, and asked to respond on a response scale (1 = *Not at all* to 7 = *Very much*). Items were designed to measure repair, approach and avoidance, as well as other possible identity management strategies (i.e., compartmentalisation, acceptance and seeking social support). However, these scales did not have acceptable Cronbach's alpha's (see appendix H), and when a factor analysis was attempted the Kaiser-Meyer-Olkin measure of sampling adequacy was not acceptable (KMO = .568). Therefore, individual items that most directly reflected avoidance ("I tried to avoid the situation") and repair ("I tried to make amends for what I could not do") were used for hypothesis testing.

Depression, Anxiety and Stress Scales 21 (DASS-21). The DASS-21 is a short form of Lovibond and Lovibond (1995) 42-item self-report measure of depression (e.g., "I couldn't seem to experience any positive feeling at all", α = .93), anxiety (e.g., "I was aware of dryness in my mouth", α = .85) and stress (e.g., "I found it hard to wind down", α = .89). Participants were asked to what extend various statements applied to them over the past week. This short form of the scale has proven construct validity in a large non-clinical adult population, and each scale shows a common factor of general psychological distress (Henry

& Crawford, 2005).

Results

The majority of the sample (87.9%) reported experiencing identity conflict. Identities involved in conflict commonly included familial identities (e.g., mother, son), student identities, and employment identities (see Table 3.1). There were no significant differences between those who did and those who did not report identity conflict in terms of anxiety, $t(161) = .22$, $p = .823$, stress, $t(161) = 1.76$, $p = .080$, or depression, $t(161) = 1.60$, $p = .111$; see Table 3.2 for descriptive statistics). However, the significance test may not be reliable due to weakened statistical power (no identity conflict group $N = 20$, identity conflict group $N = 145$).

Table 3.1

Frequency and Percentage (%) of Type of Identities Reported to Conflict

Identity Type	% (*N*)
Familial (e.g., “mother”, “son”)	22.8 (66)
Study (e.g., “psychology student”)	20.0 (58)
Employment (e.g., “scientist”, “child care worker”)	17.6 (51)
Friend (e.g., “friend”)	11.7 (34)
Significant other (e.g., “wife”, “partner”)	7.2 (21)
Belief system (e.g., “Christian”, “vegan”)	5.5 (16)
Hobby (e.g., “runner”, “backpacker”)	8.3 (24)
Gender or sexuality (e.g., “woman”, “gay”)	5.5 (16)
Other (e.g., “Chinese”)	1.4 (4)

Table 3.2

Means and Standard Deviations of DASS-21 Scores Based on Presence of Identity Conflict

	Depression	Anxiety	Stress
Identity Conflict	5.06 (3.00)	4.29 (4.14)	7.45 (4.96)
No Identity Conflict	3.00 (5.53)	4.05 (6.06)	5.30 (6.15)
Cohen's *d*	.46	.04	.38
Range	0-21	0-21	0-21

Table 3.3

Summary of Intercorrelations, Means, Standard Deviations and Ranges for Key Variables

	M(SD)	Range	1	2	3	4	5	6	7	8	9	10
1. Trait shame	1.67 (.74)	1-5	-	.47**	.09	.08	.07	.02	.17*	.62**	.49**	.54**
2. Conflict shame	1.77 (.83)	1-5	-	-	.01	.19*	.25**	.00	.18*	.44**	.33**	.30**
3. Identity importance	11.07 (2.00)	2-14	-	-	-	-.14	-.08	.06	-.03	.03	-.02	.02
4. Conflict frequency	4.15 (1.56)	1-6	-	-	-	-	.35**	-.09	.08	.14	.28**	.16
5. Conflict intensity	3.22 (1.01)	1-5	-	-	-	-	-	-.03	.00	.12	.14	.04
6. Repair	4.59 (1.66)	1-7	-	-	-	-	-	-	.04	.01	.05	.06
7. Avoid	3.35 (1.92)	1-7	-	-	-	-	-	-	-	.17*	.16	.22*
8. Depression	4.80 (5.40)	0-21	-	-	-	-	-	-	-	-	.69**	.69**
9. Stress	7.19 (5.15)	0-21	-	-	-	-	-	-	-	-	-	.74**
10. Anxiety	4.26 (4.41)	0-21	-	-	-	-	-	-	-	-	-	-

Note. ** Correlation is significant at the .01 level (2-tailed). *Correlation is significant at the .05 level (2-tailed).

Statistical Approach

Pearson correlations were used to test relationships between continuous variables (Hypotheses 1 and 3; see Table 3.3). Hierarchical regressions were used to test curvilinear relationships (Hypothesis 2) and followed recommendations by Aiken and West (1991). That is, the predictor (shame) was centred prior to calculating the quadratic term. In the first step the dependent variable (the item "I tried to avoid the situation" or "I tried to make amends") was regressed onto shame to test the linear relationship. In the second step the quadratic term of shame was entered into the model. Model 3 of the PROCESS macro (Hayes, 2013) was used to test three-way interactions (Hypothesis 4 and 5). Variables were centred prior to analyses and results were based on 5000 bootstrapped samples.

Hypothesis 1. Correlation Between Shame and Avoidance and Repair

As predicted, there was a small significant correlation between experiencing shame in response to identity conflict and avoidance. However, contrary to predictions, there was not a significant correlation between shame and repair (see Table 3.3).

Hypothesis 2. Curvilinear Relationship Between Shame and Avoidance and Repair

Although shame had a significant linear effect on avoidance, there was no evidence of a curvilinear relationship (see Table 3.4). Similarly, when this analysis was repeated with repair as the outcome variable, no evidence of a curvilinear relationship was found. As such, this hypothesis was not supported.

Table 3.4

Results of Hierarchical Regression Analysis Testing Linear and Curvilinear Relationship Between Shame and Avoidance and Repair Motivations

	B	SE_B	*β*	*p*	$CI_{95\%}$
Avoidance Motivation					
Step 1		$R^2 = .03$, $F(1, 143) = 4.59$, $p = .034$			
(Constant)	3.35	.158		< .001	[3.04, 3.67]
Shame	.41	.190	.18	.034	[.03, .78]
Step 2		$\Delta R^2 = .02$, $\Delta F(1, 142) = 3.02$, $p = .084$			
(Constant)	3.56	.197		< .001	[3.17, 3.95]
Shame	.73	.264	.32	.007	[.21, 1.25]
$Shame^2$	-.30	.175	-.20	.084	[-.65, .04]
Repair Motivation					
Step 1		$R^2 = .00$, $F(1, 143) = .00$, $p = .978$			
(Constant)	4.59	.138		< .001	[4.31, 4.86]
Shame	-.01	.167	<.01	.978	[-.33, .33]
Step 2		$\Delta R^2 = .00$, $\Delta F(1, 142) = .23$, $p = .631$			
(Constant)	4.64	.175		< .001	[4.23, 4.98]
Shame	.07	.234	.04	.752	[-.39, .54]
$Shame^2$	-.08	.155	-.06	.631	[-.38, .23]

Hypothesis 3. Avoidance and Repair Responses Relating to Psychological Distress

Aligned with the hypothesis, avoidance had significant small positive correlations with depression and anxiety, and similarly so for stress albeit not significant. Repair did not significantly correlate with any psychological distress variable (see Table 3.3). This suggests that — in the context of social identity conflict — attempting to avoid the situation is

generally positively associated with psychological distress while attempting to repair the situation is not associated with psychological distress.

Hypothesis 4. The Influence of Shame, Identity Importance and Identity Conflict Intensity on Avoidance and Repair

Table 3.5 provides a summary of the regression models. Contrary to predictions, there was no evidence of a significant interaction between shame, identity importance and identity conflict intensity. However, there was an unpredicted significant two-way interaction between shame and conflict intensity (see Table 3.5). Simple effects revealed that there was a significant positive relationship between shame and avoidance when intensity was low, B = .98, SE = .325, t = 3.01, p = .003, $CI_{95\%}$ [.33; 1.62], and a non-significant relationship between shame and avoidance when intensity was high, B = .08, SE = .250, t = .33, p = .742, $CI_{95\%}$ [-.41, .58]; see Figure 3.2. These simple effects do not align with predictions, as high conflict intensity was predicted to be associated with higher avoidance than low conflict intensity.

The same regression analysis was repeated with repair as the outcome variable. Contrary to predictions, there was no evidence of a significant interaction between shame, identity importance and conflict intensity on repair. There were also no significant two-way interactions or main effects.

Overall, these results suggest that that shame arising from identity conflict positively correlates with trying to avoid the situation, but only when conflict intensity is low, and that shame arising from identity conflict does not influence trying to amend any damage caused, nor does identity importance or the intensity of the identity conflict.

Table 3.5

Results of Hierarchal Regression Analyses Predicting Avoidance and Repair Motivations with Shame, Identity Importance, Conflict Intensity, and Their Two- and Three-Way Interactions

	B	SE_B	*t*	*p*	$CI_{95\%}$
Avoidance Motivation	$R^2 = .07$, $F(7, 134) = 1.48$, $p = .178$, $\Delta R^2 = .00$, $F(1, 134) = .20$, $p = .653$				
Shame	.53	.214	2.48	.015	[.11, .95]
Conflict Intensity	-.04	.169	-.25	.804	[-.38, 3.77]
Identity Importance	.00	.056	-.04	.967	[-.17, .17]
Shame × Conflict Intensity	-.45	.197	-2.29	.023	[-.84, -.06]
Shame × Identity importance	.08	.109	.78	.439	[-.13, .30]
Conflict Intensity × Identity Importance	.04	.088	.46	.649	[-.13, .21]
Shame × Conflict Intensity × Identity Importance	-.04	.098	-.45	.654	[-.24, .15]
Repair Motivation	$R^2 = .01$, $F(7, 134) = .12$, $p = .997$, $\Delta R^2 = .00$, $F(1, 134) < .01$, $p = .967$				
Shame	.02	.195	.110	.912	[-.36, .41]
Conflict Intensity	-.04	.154	-.25	.802	[-.34, .27]
Identity Importance	.05	.078	.631	.529	[-.11, .20]
Shame × Conflict Intensity	-.06	.179	-.33	.741	[-.41, .29]
Shame × Identity importance	.00	.099	.00	.999	[-.20, .20]
Conflict Intensity × Identity Importance	.035	.080	.479	.633	[-.12, .20]
Shame × Conflict Intensity × Identity Importance	.00	.089	.041	.967	[-.17, .18]

Note. ΔR^2 represents the change in R^2 as a result of the three-way interaction. df (7, 130) for all models.

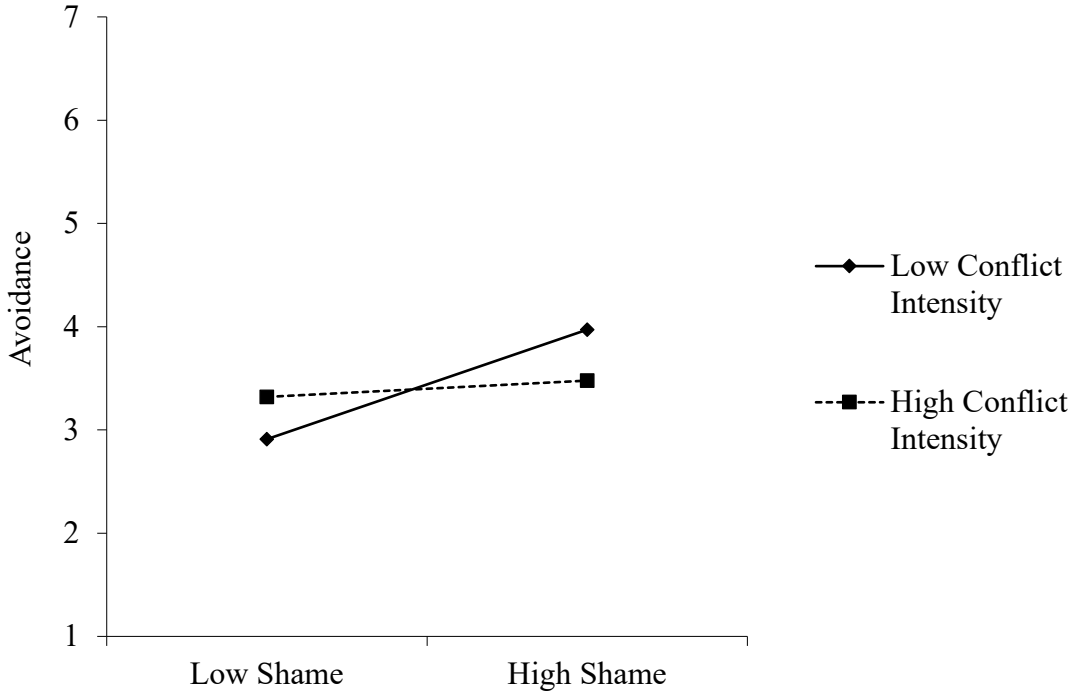

Figure 3.2. Avoidance as a function of shame and conflict intensity.

Hypothesis 5. The Influence of Shame, Identity Importance and Identity Conflict Intensity on Psychological Distress

Contrary to the hypothesis, there was no evidence of a three-way interaction between shame, identity importance and conflict intensity on psychological distress variables (see Table 3.6).

However, the analyses did reveal some unpredicted significant two-way interactions. There was a significant two way interaction between shame and identity importance on anxiety (see Figure 3.3), such that when importance was low, shame did not have a significant relationship with anxiety, $B = .81$, $SE = .596$, $t = 1.35$, $p = .179$, $CI_{95\%}$ [-.37, 1.99], but when importance was high, shame had a significant positive relationship with anxiety, $B = .2.61$, $SE = .646$, $t = 4.05$, $p < .001$, $CI_{95\%}$ [1.34, 3.89]. There was also a significant two-way interaction between shame and identity importance on stress in the same direction (see Figure 3.4). When identity importance was low, shame did not have a significant relationship

with stress, $B = .93$, $SE = .690$, $t = 1.35$, $p = .179$, $CI_{95\%}$ [-.43, 2.30], but when identity importance was high, shame had a significant positive relationship with stress, $B = 2.95$, $SE = .746$, $t = 3.95$, $p < .001$, $CI_{95\%}$ [1.47, 4.43]. There was also a marginally significant interaction between shame and identity importance on depression in the same direction. While not predicted effects, these relationships are understandable given shame arising from conflict between important identities is likely to be more distressing than shame arising from conflict between less important identities. Although, it is notable that the level of conflict did not influence these relationships.

A significant two-way interaction was also present between shame and conflict intensity on stress (see Figure 3.5), such that when conflict intensity was low, there was a significant positive relationship between shame and stress, $B = 2.87$, $SE = .770$, $t = 3.73$, $p < .001$, $CI_{95\%}$ [1.35, 4.39], whereas when conflict intensity was high, there was not a significant relationship between shame and stress, $B = 1.01$, $SE = .585$, $t = 1.73$, $p = .085$, $CI_{95\%}$ [-.14, 2.17].

Overall, the results suggest that shame arising from identity conflict positively correlates with depression, and this relationship is not significantly impacted by conflict intensity, but marginally impacted by identity importance. Shame arising from identity conflict is also positively correlated with anxiety, but only when identity importance is high. Shame arising from identity conflict is also positively correlated with stress, but only when identity importance is high, or when conflict intensity is low.

Table 3.6

Results of Hierarchical Regression Analysis Predicting Psychological Distress with Shame, Identity Conflict Intensity, Identity Importance and Their Two- and Three-Way Interactions

	B	SE_B	*t*	*p*	$CI_{95\%}$
Depression	$R^2 = .51$, $F(7, 132) = 6.75$, $p < .001$; $\Delta R^2 < .01$, $F(1, 134) = .26$, $p = .614$				
Shame	.19	.420	5.10	<.001	[1.64, 3.72]
Conflict Intensity	.19	.420	.45	.650	[-.64, 1.02]
Identity Importance	-.02	.210	-.08	.937	[-.43, .40]
Shame × Conflict Intensity	-.16	.483	-.33	.740	[-1.12, .79]
Shame × Identity Importance	.52	.266	1.94	.055	[-.01, 1.04]
Conflict Intensity × Identity Importance	.16	.215	.75	.453	[-.26, .58]
Shame × Conflict Intensity × Identity Importance	.12	.241	.51	.614	[-.36, .60]
Anxiety	$R^2 = .15$, $F(7, 132) = 3.30$, $p = .003$; ΔR^2 .02, $F(1, 132) = 3.43$, $p = .066$				
Shame	1.71	.439	3.90	<.001	[.84, 2.58]
Conflict Intensity	.10	.350	.279	.781	[-.60, .79]
Identity Importance	.13	.175	.767	.445	[-.21, .48]
Shame × Conflict Intensity	-.44	.404	-1.09	.279	[-1.24, .36]
Shame × Identity Importance	.46	.222	2.05	.042	[.02, .90]
Conflict Intensity × Identity Importance	.17	.179	.969	.334	[-.18, .53]
Shame × Conflict Intensity × Identity Importance	-.37	.20	-1.85	.066	[-.77, .03]
Stress	$R^2 = .18$, $F(7, 132) = 4.10$, $p < .001$, ΔR^2 .02, $F(1, 132) = .58$, $p = .446$				
Shame	1.94	.51	3.83	<.001	[.94, 2.95]
Conflict Intensity	.63	.41	1.56	.121	[-.17, 1.43]
Identity Importance	.04	.202	.17	.862	[-.37, .44]
Shame × Conflict Intensity	-.94	.467	-2.02	.045	[-1.87, -.02]

Shame × Identity Importance	.51	.257	1.98	.050[11]	[<.01, 1.02]
Conflict Intensity × Identity Importance	.22	.207	1.05	.300	[-.19, .63]
Shame × Conflict Intensity × Identity Importance	-.18	.233	-.76	.446	[-.64, .28]

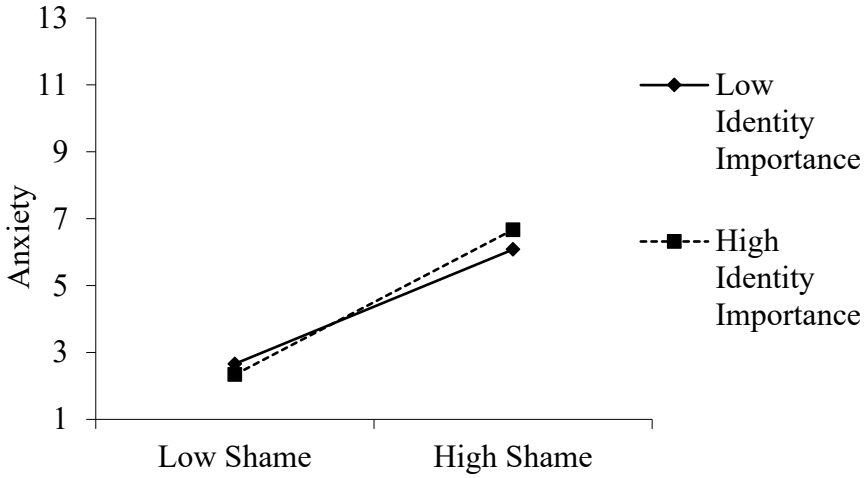

Figure 3.3. Interaction between shame and identity importance on anxiety.

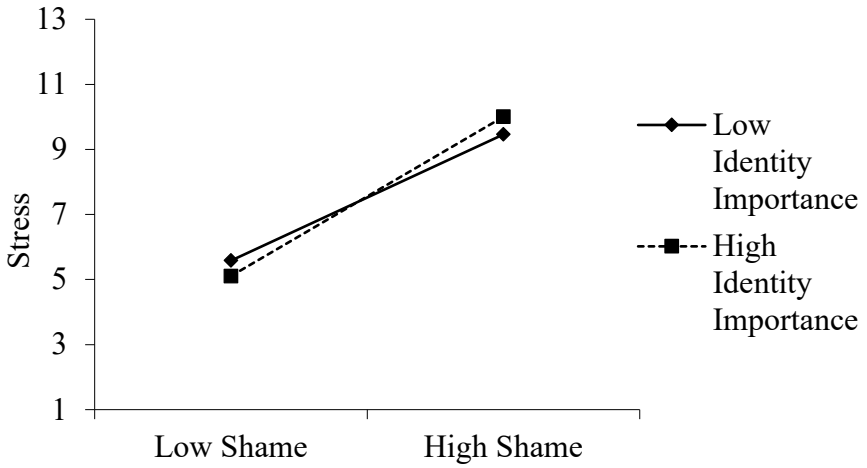

Figure 3.4. Interaction between shame and identity importance on stress.

[11] Without rounding $p = .0498$

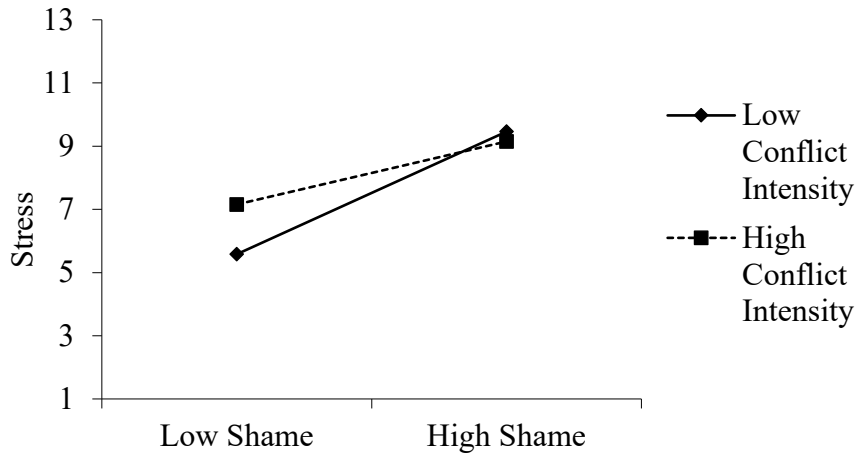

Figure 3.5. Interaction between shame and conflict intensity on stress.

Discussion

The first aim of this study was to investigate if the relationship between shame and responses are moderated by the intensity of the identity conflict and the importance of the involved identities. Contrary to predictions, there were no significant three-way interactions between shame, identity conflict intensity and identity importance on avoidance or repair responses. There was a significant moderation between shame and the intensity of the conflict on avoidance, although this relationship was not in the direction predicted. That is, a positive relationship between shame and avoidance was only present when the intensity of the conflict was low rather than high. Although this finding requires replication, a possible explanation is that shame arising from identity conflicts which are not too intense are more easily able to be avoided and ignored, while shame arising from identity conflicts which are more intense to not provide the opportunity to avoid. Furthermore, neither shame, intensity conflict, the importance of the conflicting identities, or the interactions between these variables, predict repair responses. The finding that repair did not mirror the findings relating to avoidance further supports the suggestion in Chapter 2 that repair and avoidance motivations may not be the opposite ends of the same continuum, and in fact can operate independently.

The second aim was to investigate the implications of identity conflict intensity and the importance of the involved identities on shame's relationship with psychological distress.

There was an interaction between shame and identity importance on anxiety and stress, such that shame had a positive relationship with stress and anxiety, but only when important identities were involved in the conflict. Although it is understandable that shame arising in important domains may be more distress-inducing, it remains unknown why the level of conflict did not further contribute to (or ameliorate) this distress. There was also an interaction between identity conflict intensity and shame on stress, but this was not in the predicted direction: shame and stress were positively correlated but only when conflict intensity is low, as opposed to high.

The third aim was to investigate the relationship between shame and responses in the context of identity conflict. While results confirmed the prediction that shame resulting from identity conflict had a small positive relationship with avoidance, shame did not significantly correlate with repair, nor was there evidence of a curvilinear relationship between shame and avoidance or repair responses. The lack of significant curvilinear findings adds further support to the suggestion in Chapter 2 that previous significant findings may be unreliable and the result of a Type 1 error. It also provides a test of the hypothesis in relation to repair and avoidance *attempts*, not only repair and avoidance *motivations*.

These findings should be interpreted in the context of their limitations. Firstly, due to unacceptable internal consistency for planned shame response scales, single-item measures were used to test hypotheses in relation to repair and avoidance. This inconsistency within scales may be due to some scales including items that relate only to one group. For example, the behavioural approach scale included “I try to get in contact with them [with group/role A]” and “I try to get in contact with them [with group/role B]”. It is possible that participants responded to the two groups differently, and hence the lack of consistency within scales. Another possibility is that given participants were asked about their identity conflict in a general sense, rather than in relation to a specific incident or time-frame, their reported

responses were more varied, and that this variation within scales reflected changes in responses over time. The second key limitation is that there was no measure of perceived reparability included. As such, it is unclear whether the unpredicted influence (or lack thereof) of the intensity of the identity conflict and importance of involved identities is due to these measures not accurately capturing reparability, or whether they are a true reflection of the influence of reparability.

Study 3.2

While maintaining an online retrospective design, Study 3.2 sought to amend these limitations. To reduce the possibility of capturing changes in responses over time, participants were asked to report on a specific incident of identity conflict that had occurred in the last 24 hours. A self-report measure of reparability was also added, in order to allow a direct test of the influence of reparability on the relationship between shame and avoidance or repair. To improve the measures of approach and repair, established scales that measure motivations in response to shame were included (Lickel et al., 2014).

As a result of these methodological changes, the original study hypotheses were tested with the addition of a self-improvement measure predicted to act similarly to its counterpart approach-oriented measure: repair motivations. An additional hypothesis was also added to test whether the combined effects of identity conflict intensity and identity importance influence perceived reparability.

Hypothesis 1. Overall, shame will be positively related to avoidance motivation and negatively related to repair and self-improvement motivations.

Hypothesis 2. There will be a significant curvilinear relationship between shame and avoidance motivation, such that both low and high shame will be associated with higher avoidance motivation than moderate shame (i.e., a “U” shaped relationship). The inverse will be true for repair and self-improvement motivations, such that both low and high shame are

associated with lower repair and self-improvement motivations than moderate shame (i.e., an inverted "U" shaped relationship)[12].

Hypothesis 3. Avoidance motivation will be positively related to depression, anxiety and stress; repair and self-improvement motivations will be negatively related to depression, anxiety and stress.

Hypothesis 4. Identity conflict intensity will moderate the relationship between identity importance and perceived reparability. When identity conflict intensity is low, there will be a positive relationship between identity importance and perceived reparability. When identity conflict is high, there will be a negative relationship between identity importance and perceived reparability.

Hypothesis 5. When identity conflict intensity is low, shame and avoidance motivation will have a negative relationship, and this negative relationship between shame and avoidance motivation will be stronger when identities are important compared to not important. On the other hand, when identity conflict intensity is high, shame and avoidance motivation will have a positive relationship, and this positive relationship would be stronger when identities are important compared to not important.

The opposite will be true for repair and self-improvement motivations. That is, when identity conflict intensity is low, shame will have a positive relationship with repair and self-improvement, and this positive relationship will be stronger when identities are important compared to not important. On the other hand, when identity conflict intensity is high, shame will have a negative relationship with repair and self-improvement motivations, and this negative relationship would be stronger when identities are important compared to not important.

[12] Given Study 3.2 shares the same data as Study 2.1 this hypothesis has previously been tested for the data of Study 3.2. As such this hypothesis will only be tested in Study 3.1

Hypothesis 6. Given that avoidance is hypothesised to positively predict depression, anxiety and stress (i.e. psychological distress), shame, identity importance and the intensity of the identity conflict are also expected to interact to predict psychological distress. That is, when identity conflict intensity is low, shame and psychological distress will have a negative relationship, and this negative relationship between shame and psychological distress will be stronger when identities are important compared to not important. On the other hand, when identity conflict intensity is high, shame and psychological distress will have a positive relationship, and this positive relationship would be stronger when identities are important compared to not important.

Hypothesis 7. There will be a positive relationship between shame and avoidance motivation, and this positive relationship will be stronger when reparability is low compared to when reparability is high.

The inverse will be true for repair and self-improvement motivations, such shame will have a negative relationship with repair and self-improvement motivations, and this negative relationship will be stronger when reparability is high compared to when reparability is low.

Hypothesis 8. There will be a positive relationship between shame and depression, anxiety and stress, and this positive relationship will be larger when reparability is low compared to when reparability is high.

Method

Participants

Participants were recruited via the Flinders University Research Participation System (N = 127) and Amazon Mechanical Turk (N = 120). After the removal of surveys of participants who did not meet criteria (N = 37), and those who withdrew from the survey (N =

64)[13] there were 143 surveys remaining for analysis. All remaining participants had passed an attention check (wording of attention check detailed in Study 2.1). Sixty two percent of participants were female, and participants were between 18 and 67 years old (M = 27.60, SD = 10.58).

Statistical Power

A sensitivity analysis was conducted using the GPower software package (Faul and Erdfelder, 1992). Based on a 7 predictor variable equation as a baseline, with alpha set at .05 and 143 participants (i.e., the number of participants who reported an identity conflict) the analysis suggested that there was adequate power (.80) to detect an R^2 of .05, a small to medium effect.

Procedure and Materials

The concept of identity conflict was introduced to participants, and they were asked to report whether they could recall an instance in which two or more of their identities (e.g., groups or roles) conflicted within the last 24 hours. Only participants who answered that they did experience identity conflict within the last 24 hours continued to the survey. As per Study 3.1, participants provided their demographic details, described their identity conflict, and rated their shame in relation to the conflict (α = .84). Participants then completed a measure of their response to the conflict (Lickel et al., 2014); repair motivation (e.g., "I felt like I should apologise for what happened", α = .78, 3 items), avoidance motivation (e.g., "I wanted to be completely unassociated with the event", α = .84, 3 items), and motivation to change the self (e.g. "I felt the urge to be a better person", α = .88, 4 items; see appendix I for complete list of items).

Next, participants completed a scale of perceived reparability, as reported in Study 2.1

[13] N = 17 withdrew prior to answering any questions, N = 42 withdrew when asked to describe their identity conflict, and N = 5 withdrew prior to answering any dependent variable questions.

— a study that shared the same data as the current study. As per the measures of Study 3.1, participants then rated the importance of their conflicting identities (α = .84 - .88, 4 items), how frequently the identities conflicted and the intensity of the conflict (α = .68). The internal consistency of the identity conflict items was higher than in Study 3.1 and considered acceptable given the scale includes different facets involved in identity conflict intensity, such as conflict in time commitments as well as conflict in behaviours. An identity conflict intensity scale was created by averaging the items. Participants then completed the DASS-21 (depression α = .92, anxiety α = .89, stress α = .91; Lovibond & Lovibond, 1995)

Seven days later, participants were emailed with a link to the second time point survey, which included measures of shame, responses to identity conflict, perceived reparability and the DASS-21[14].

Results

Statistical Approach

Statistical procedures were aligned with those outlined in Study 3.1. To test the additional moderation hypotheses (Hypotheses 6 and 7), Model 1 of the PROCESS macro (Hayes, 2013) was applied. Predictor variables were centred prior to analyses and results were based on 5000 bootstrapped samples. Table 3.7 provides a summary of the descriptive statistics and intercorrelations between key variables.

[14] Due to an unexpectedly high withdrawal rate at Time 1, combined with a high attrition rate by Time 2 (T2 N = 61), the second time point results were not analysed. Although the data from the second time point would have allowed for investigation of the stability of the effects, the second time point was not essential to answering hypotheses.

Table 3.7

Summary of Intercorrelations, Means, Standard Deviations and Ranges for Key Variables

	M(SD)	Range	1	2	3	4	5	6	7	8	9	10
1. Shame	1.87 (.92)	1-5	-	-.04	-.04	-.63**	.35**	.54**	.47**	.45**	.49**	.39**
2. Conflict intensity	3.46 (.88)	1-5	-	-	.21*	.13	.18*	.03	.06	.19*	.10	.18*
3. Identity importance	10.42 (2.14)	2-14	-	-	-	.12	.18*	-.03	.19*	-.05	-.05	.04
4. Reparability	4.93 (1.13)	1-7	-	-	-	-	-.31**	-.50**	-.42**	-.43**	-.51**	-.42**
5. Repair	3.99 (1.63)	1-7	-	-	-	-	-	.46**	.61**	.11	.19*	.20*
6. Avoidance	3.24 (1.73)	1-7	-	-	-	-	-	-	.47**	.31**	.42**	.33**
7. Self-improvement	3.64 (1.56)	1-7	-	-	-	-	-	-	-	.26**	.31**	.29**
8. Depression	5.32 (5.33)	0-21	-	-	-	-	-	-	-	-	.83**	.83**
9. Anxiety	4.53 (4.91)	0-21	-	-	-	-	-	-	-	-	-	.81**
10. Stress	7.38 (5.66)	0-21	-	-	-	-	-	-	-	-	-	-

Note. ** Correlation is significant at the .01 level (2-tailed). * Correlation is significant at the .05 level (2-tailed).

Hypothesis 1. Correlation Between Shame and Avoidance, Repair and Self-Improvement Motivations

Aligned with predictions, shame had a significant positive correlation with avoidance motivation. Contrary to predictions, this was also the case for repair and self-improvement motivation (see Table 3.7).

Hypothesis 2. Avoidance, Repair and Self-Improvement Motivations Correlating with Psychological Distress

Aligned with the hypothesis, avoidance significantly positively correlated with depression, anxiety and stress. Repair also unexpectedly positively correlated with anxiety and stress, and self-improvement positively correlated with depression, anxiety and stress. However, there was an unpredicted significant positive correlation between avoidance and repair. As such, a linear regression of avoidance and repair on depression, anxiety and stress was conducted to understand the unique variance explained by avoidance and repair. These analyses showed that avoidance motivation significantly predicated depression, anxiety and stress, but repair motivation, with the variance of avoidance motivation accounted for, did not significantly predict any psychological distress variables (see Table 3.9).

Table 3.9

Linear Regressions for Avoidance and Repair on Depression, Anxiety and Stress

	B	SE_B	*β*	*p*	$CI_{95\%}$
Depression		$R^2 = .10$, $F\ (2, 139) = 7.30$, $p < .001$			
(Constant)	2.53	1.191		.035	[.18, 4.88]
Avoidance	1.00	.281	.32	.001	[.44, 1.55]
Repair	-.11	.296	-.03	.716	[-.69, .48]
Anxiety		$R^2 = .17$, $F\ (2, 139) = 14.53$, $p < .001$			

(Constant)	.68	1.05		.521	[-1.40, 2.75]
Avoidance	1.18	.247	.41	< .001	[.69, 1.67]
Repair	.01	.261	<.01	.970	[-.51, .53]
Stress		$R^2 = .11$, F (2, 138) = 8.58, $p < .001$			
(Constant)	3.40	1.25		.008	[.92, 5.87]
Avoidance	.99	.296	.30	.001	[.41, 1.58]
Repair	.20	.311	.06	.518	[-.41, .82]

Hypothesis 3. The Influence of Shame, Identity Importance and Identity Conflict Intensity on Avoidance, Repair and Self-Improvement Motivations

The first outcome variable tested was avoidance motivation (Table 3.10). Contrary to the hypothesis there was no evidence of a significant three-way interaction between shame, identity importance and identity conflict on avoidance motivation, nor significant two-way interactions. There was a significant positive main effect of shame on avoidance motivation, and no other significant main effects. The same pattern was found when this analysis was repeated with repair and self-improvement motivations as the outcome variable (Table 3.10), although, along with shame, identity importance also had a significant positive main effect on repair and self-improvement.

Table 3.10

Results of Hierarchical Regression Analysis Predicting Avoidance and Repair Motivations with Shame, Identity Importance, Conflict Intensity and their Two- and Three-Way Interactions

	B	SE_B	*t*	*p*	$CI_{95\%}$
Avoidance Motivation	$R^2 = .31$, $F = 8.72$, $p < .001$, $\Delta R^2 = .01$, $\Delta F = 1.00$, $p = .320$				
Constant	3.24	.128	25.28	< .001	[2.98, 3.49]
Conflict Intensity	.11	.147	.76	.448	[-.18, .40]
Shame	1.01	.142	7.13	< .001	[.73, 1.29]
Identity Importance	.02	.062	.39	.696	[-.10, .15]
Shame × Conflict Intensity	-.15	.136	-1.10	.276	[-.42, .12]
Shame × Identity Importance	.02	.066	.27	.790	[-.11, .15]
Identity Importance × Conflict Intensity	-.09	.073	-1.29	.198	[-.24, .05]
Shame × Identity Importance × Conflict Intensity	.07	.701	1.00	.320	[-.07, .21]
Repair Motivation	$R^2 = .23$, $F = 5.78$, $p < .001$, $\Delta R^2 < .01$, $\Delta F = .81$, $p = .370$				
Constant	3.98	.129	31.00	< .001	[3.73, 4.24]
Conflict Intensity	.28	.147	1.87	.064	[-.02, .57]
Shame	.69	.142	4.86	< .001	[.41, .97]
Identity Importance	.16	.063	2.59	.011	[.04, .29]
Shame × Conflict Intensity	-.14	.137	-.99	.324	[-.41, .14]
Shame × Identity Importance	.08	.066	1.18	.240	[-.05, .21]
Identity Importance × Conflict Intensity	-.06	.074	-.79	.434	[-.20, .09]
Shame × Identity Importance × Conflict Intensity	.06	.070	.90	.370	[-.08, .20]
Self-Improvement Motivation	$R^2 = .53$, $F = 7.35$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .12$, $p = .732$				

Constant	3.64	.119	30.66	< .001	[3.41; 3.88]
Conflict Intensity	.06	.136	.41	.684	[-.21; .32]
Shame	.82	.132	6.25	< .001	[.56; 1.08]
Identity Importance	.17	.127	2.98	.003	[.06; .29]
Shame × Conflict Intensity	-.16	.061	-1.23	.221	[-.41; .09]
Shame × Identity Importance	.02	.127	.34	.338	[-.10; .14]
Identity Importance × Conflict Intensity	-.06	.068	-.89	.377	[-.20; .07]
Shame × Identity Importance × Conflict Intensity	.02	.065	.34	.732	[-.10; .15]

Note. Overall model $df = 7, 134$. Three-way interaction $df = 1, 134$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

Hypothesis 4. Moderating Effect of Identity Conflict Intensity on Relationship Between Identity Importance and Perceived Reparability

There was a significant interaction between identity conflict and identity importance to predict perceived reparability (see Table 3.11). Aligned with the hypothesis, when identity conflict intensity was low, there was a significant positive relationship between identity importance and perceived reparability, $B = .20$, $SE = .082$, $p = .016$, $CI_{95\%}$ [.04; .36]. When identity conflict intensity was high the relationship was predicted to be negative, however, it was non-significant, $B = -.05$, $SE = .071$, $p = .496$, $CI_{95\%}$ [-.19; .09].

Table 3.11.

Results of Hierarchical Regression Analysis Predicting Perceived Reparability with Identity Importance and Conflict Intensity and Their Two-Way Interaction

Predictor	*B*	SE_B	*t*	*p*	$CI_{95\%}$
	$R^2 = .06$, $F = 2.97$, $p = .034$, $\Delta R^2 = .04$, $\Delta F = 5.20$, $p = .024$				
Constant	5.48	.114	48.10	< .001	[5.26; 5.71]
Conflict Intensity	.16	.130	1.20	.232	[-.10; .41]

Identity Importance	.08	.054	1.40	.164	[-.03; .18]
Identity Importance × Conflict Intensity	-.14	.062	-2.28	.024	[-.26; -.02]

Hypothesis 5. The Influence of Shame, Identity Importance and Conflict Intensity on Psychological Distress

Contrary to the hypothesis, shame, conflict intensity and identity importance did not interact to predict psychological distress (see Table 3.12). There were also no significant two-way interactions. In regards to main effects, both conflict intensity and shame had significant positive main effects on all psychological distress variables.

Table 3.12

Results of Hierarchical Regression Analysis Predicting Psychological Distress with Shame, Identity Importance, Conflict Intensity and Their Two- and Three-Way Interactions

	B	SE_B	*t*	*p*	$CI_{95\%}$
Depression	$R^2 = .26$, $F = 6.64$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .48$, $p = .489$				
Constant	5.34	.412	12.94	< .001	[4.52, 6.15]
Conflict Intensity	1.31	.473	2.78	.006	[.38, 2.24]
Shame	2.71	.456	5.94	< .001	[1.81, 3.61]
Identity Importance	-.21	.202	-1.01	.310	[-.61, .19]
Shame × Conflict Intensity	-.28	.439	-.63	.529	[-1.14, .59]
Shame × Identity Importance	.04	.212	.17	.863	[-.38, .46]
Identity Importance × Conflict Intensity	.07	.236	.28	.783	[-.40, .53]
Shame × Identity Importance × Conflict Intensity	-.16	.226	-.69	.489	[-.60, .29]
Anxiety	$R^2 = .29$, $F = 7.73$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .84$, $p = .360$				
Constant	4.47	.372	12.00	< .001	[3.73, 5.20]

Conflict Intensity	.84	.427	1.95	.050[15]	[<.01, 1.69]
Shame	2.64	.412	6.41	< .001	[1.82, 3.45]
Identity Importance	-.21	.182	-1.15	.250	[-.57, .15]
Shame × Conflict Intensity	-.17	.396	-.43	.671	[-.95, .61]
Shame × Identity Importance	-.20	.191	-1.06	.292	[-.58, .18]
Identity Importance × Conflict Intensity	.25	.213	1.18	.241	[-.17, .67]
Shame × Identity Importance × Conflict Intensity	-.19	.204	-.92	.360	[-.59, .22]
Stress	$R^2 = .21$, $F = 5.03$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = 1.41$, $p = .236$				
Constant	7.36	.453	16.25	<.001	[6.47, 8.26]
Conflict Intensity	1.25	.519	2.42	.017	[.23, 2.29]
Shame	2.47	.501	4.93	< .001	[1.48, 3.46]
Identity Importance	-.07	.222	-.33	.745	[-.51, .37]
Shame × Conflict Intensity	-.04	.482	-.09	.932	[-.99, .91]
Shame × Identity Importance	-.08	.232	-.33	.739	[-.53, .38]
Identity Importance × Conflict Intensity	.28	.259	1.08	.283	[-.23, .79]
Shame × Identity Importance × Conflict Intensity	-.29	.247	-1.19	.236	[-.78, .19]

Note. Overall model $df = 7, 134$. Three-way interaction $df = 1, 134$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

Hypothesis 6. Moderating Effect of Reparability on Shame's Relationship with Avoidance, Repair and Self-Improvement Motivations

Contrary to the hypothesis, there was not a significant interaction between shame and perceived reparability on avoidance or repair motivations (see Table 3.13). However, aligned with the hypothesis, there was a significant interaction between shame and perceived reparability on self-improvement motivations, such that the positive relationship between

[15] $p = .0497$ without rounding

shame and self-improvement motivations was larger when reparability was high, $B = 1.16$, $SE = .279$, $p < .001$ $CI_{95\%}$ [.60; 1.71], compared to low, $B = .45$, $SE = .163$, $p = .007$, $CI_{95\%}$ [.12; .77].

Table 3.13

Results of Hierarchical Regression Analyses Predicting Avoidance and Repair Motivations with Shame, Reparability and Their Two-Way Interaction

	B	SE_B	*t*	*p*	$CI_{95\%}$
Avoidance	$R^2 = .35$, $F = 24.41$, $p < .001$, $\Delta R^2 = .01$, $\Delta F = 2.65$, $p = .106$				
Constant	3.36	.145	23.15	< .001	[3.08; 3.65]
Shame	.85	.191	4.44	< .001	[.47; 1.23]
Reparability	-.33	.113	-2.89	.005	[-.55; -.10]
Shame × Reparability	.18	.108	1.63	.106	[-.04; .39]
Repair	$R^2 = .17$, $F = 9.12$, $p < .001$, $\Delta R^2 = .01$, $\Delta F = 2.10$, $p = .150$				
Constant	4.11	.156	26.37	< .001	[3.80; 4.42]
Shame	.71	.205	3.44	.001	[.30; 1.11]
Reparability	-.12	.121	-.959	.339	[-.36; .12]
Shame × Reparability	.17	.116	1.45	.150	[-.06; .40]
Self-Improvement	$R^2 = .53$, $F = 17.88$, $p < .001$, $\Delta R^2 = .03$, $\Delta F = 6.53$, $p = .012$				
Constant	3.83	.138	27.78	< .001	[3.56; 4.11]
Shame	.80	.182	4.41	< .001	[.44; 1.16]
Reparability	-.22	.107	-2.06	.042	[-.43; -.01]
Shame × Reparability	.26	.103	2.55	.012	[.06; .47]

Note. Overall model $df = 3, 138$. Two-way interaction $df = 1, 138$. ΔR^2 represents increase in R^2 as a result of the two-way interaction.

Hypothesis 7. Moderating Effect of Reparability on the Relationship Between Shame and Psychological Distress

Contrary to the hypothesis, perceived reparability did not significantly interact with shame to predict any psychological distress variables (see Table 3.14). Perceived reparability had a significant negative main effect on all psychological distress variables, while shame had a significant positive main effect on depression and anxiety only.

Table 3.14

Results of Hierarchical Regression Analyses Predicting Psychological Distress with Shame, Perceived Reparability and Their Two-Way Interaction

	B	SE_B	*t*	*p*	$CI_{95\%}$
Depression	$R^2 = .24$, $F = 14.59$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .39$, $p = .532$				
Constant	5.14	.485	10.59	< .001	[4.18; 6.10]
Shame	1.55	.638	2.43	.016	[.29; 2.81]
Reparability	-.95	.377	-2.51	.013	[-1.69; -.20]
Shame × Reparability	-.23	.361	-.63	.532	[-.94; .49]
Anxiety	$R^2 = .32$, $F = 21.34$, $p < .001$, $\Delta R^2 = .01$, $\Delta F = 1.05$, $p = .307$				
Constant	4.27	.424	10.08	< .001	[3.44; 5.11]
Shame	1.19	.557	2.14	.034	[.09; 2.29]
Reparability	-1.25	.330	-3.80	< .001	[-1.90; -.60]
Shame × Reparability	-.32	.315	-1.02	.307	[-.95; .30]
Stress	$R^2 = .20$, $F = 11.59$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .11$, $p = .745$				
Constant	7.28	.532	13.69	< .001	[6.23; 8.33]
Shame	1.14	.699	1.63	.105	[-.24; 2.52]
Reparability	-1.22	.414	-2.94	.004	[-2.04; 2.52]
Shame × Reparability	-.13	.393	-.33	.745	[-.91; .65]

Discussion

The first aim of this study was to investigate if the relationship between shame and responses to shame are influenced by perceived reparability, and whether identity conflict and identity importance act as proxies for perceived reparability. Although identity importance and conflict intensity interacted to predict perceived reparability, there was no evidence of identity importance and conflict intensity interacting to predict motivational responses. Furthermore, when perceived reparability was measured directly, it also did not interact with shame to predict responses. Consequently, it may be that perceived reparability, as measured in the current study, does not influence responses to shame. When considering the main effects, shame had a positive relationship with avoidance, repair and self-improvement motivations. However, when the shared variance between avoidance and repair motivations was considered, shame had a positive relationship only with avoidance motivation.

The second aim was to investigate the implications of identity conflict intensity and the importance of the involved identities — proposed proxies of perceived reparability — on shame's relationship with psychological distress. The results suggested that perceived reparability, whether measured directly or through identity importance and conflict intensity, does not interact with shame to predict psychological distress. Instead, it appeared that shame was positively related to psychological distress regardless of conflict intensity or perceived reparability.

General Discussion

The aim of the current research was to explore factors that influence the perceived reparability of shame arising from identity conflict, and whether the perceived reparability impacts responses to shame and psychological distress. Avoidance in response to identity conflict was associated with psychological distress. However, shame's relationship with

avoidance and repair motivations, and the impact of shame's perceived reparability on this relationship, did not align with predictions. The current chapter also tested the curvilinear relationship between shame and responses. Study 3.1 found no evidence for a curvilinear relationship between shame and avoidance or repair attempts, contributing further to the suggestion in Chapter 2 that the curvilinear relationships found in earlier studies in this thesis may be unreliable.

Given the likelihood that shame arising from identity conflict would be perceived as difficult to repair, it was predicted that shame would be positively correlated with avoidance and negatively correlated with repair and self-improvement. Both studies found shame arising from identity conflict positively correlated with avoidance, but contrary to the predictions, Study 3.1 showed that shame did not signficantly correlate with repair while the results of Study 3.2 showed a positive correlation, an inconsistency perhaps explained due to Study 3.1 measuring repair attempts while Study 3.2 measured repair motivations. Shame positively correlating with both avoidance and repair in Study 3.2 echos the findings of Chapter 2, whereby avoidance and repair motivations acted more similarly than first anticipated.

Furthermore, there was no evidence to support the hypothesis that the interaction between identity importance and conflict intensity moderated shame's relationship with avoidance or repair. Although Study 3.1 found an interaction between shame and conflict intensity on avoidance, this was in the opposite direction to predictions: when conflict intensity was high, there was not a significant relationship between shame and avoidance, whereas when conflict intensity was low (shown to be more reparable), there was a positive correlation between shame and avoidance. This unexpected effect was not replicated in Study 3.2 when established measures of motivational responses were implemented. Furthermore, aligned with the findings of Chapter 2, Study 3.2 showed that perceived reparability — when measured directly — did not influence the relationship between shame avoidance

motivations. Why, then, would there be a stronger positive relationship between shame and avoidance when conflict intensity is low (relative to high)? It may be that when conflict intensity is low, there is a positive relationship between shame and avoidance because it is *possible* to avoid. Whereas, when identity conflict intensity is high, avoiding it is less of an option.

Aligned with Study 2.3, perceived reparability moderated the relationship between shame and self-improvement motivation in Study 3.2, such that the positive relationship between shame and self-improvement motivation was larger when perceived reparability was high. This suggests that, as was found in Leach & Cidam's (2015) meta-analysis, self-improvement motivation is more likely when it is perceived as more possible. However, this result failed to replicate in Study 2.4. Furthermore, the same result was not found for another approach-oriented measure: repair motivations. As such, drawing strong conclusions would be premature.

In regards to the relationship between shame and psychological distress, there was also no evidence in the present studies to support the hypothesis that the interaction between identity importance and conflict intensity would moderate shame's relationship with psychological distress. That being said, in Study 3.1 shame and identity importance interacted such that shame had a significant positive relationship with anxiety and stress, but only when identity importance was high. When identity importance was low, the relationships were not significant. This is understandable given that shame arising from conflicts between identities are likely to be more distressing when the identities involved are important to one's identity. The interaction between shame and conflict intensity on stress, however, is more difficult to explain: when conflict intensity was low shame had a significant positive relationship with stress and this relationship was not significant when conflict intensity was high. This may be because when there is little conflict intensity a person may be more likely to blame

themselves (rather than circumstances outside of their control such as incompatible identities) and feel responsible for amending the problem. This heightened responsibility may result in their shame being accompanied by higher stress.

Past research has found mixed evidence for the notion that the intensity of identity conflict interacts with the importance of conflicting identities to influence psychological outcomes (Brook et al., 2008; Noor, 2004; Settles, 2004). Settles (2004) found that identity importance moderated the relationship between conflict intensity (what they refer to as "identity interference") and well-being (i.e., depression, life satisfaction and self-esteem). That is, conflict intensity did not influence well-being if conflicting identities (i.e., woman and scientist) were both of low importance, but when either or both was of high importance, identity conflict negatively related to well-being. Similarly, Noor (2004) found that work-interfering-with-family conflict predicted poorer well-being (as measured by the General Health Questionaire 12; Goldberg & Hillier, 1979; a measure of nonpsychotic psychological impairment) only when work identity was highly important (referred to as "salience"). Brook et al. (2008) did not find a significant interaction between identity conflict intensity (referred to as "identity harmony") and identity importance on psychological well-being.

A key methodological difference between the studies that have found effects of identity importance and conflict intensity on well-being, and those that have not, is the type of identities studied. It may be that identity importance and conflict intensity interact to predict well-being when identities are involved that cannot be easily disidentified from (i.e., gender and parent; woman scientists, Settles, 2004; working mothers, Noor 2004), but not when a broader range of identities are involved (i.e., Brook et al., 2008; the current studies). Perhaps it is the level of conflict between the important identities - coupled with the inability to remove identification with one of those identities - that leads to distress. If this were the case, I would expect the interaction between conflict intensity and identity importance on

well-being to exist when other identities that are difficult to disidentify with, such as ethnicity, are involved in identity conflict. Another possibility is that in the Settles (2004) and Noor (2004) studies, not only could their participants not disidentify with their mothering or female identities, those identities may have also been accompanied by stigma within the studied contexts (e.g., female scientists, working mothers). Hence, it would also be necessary to investigate whether the relationship between identity conflict variables and psychological distress are unique to stigmatized identities that are difficult to disidentify from, or if this relationship is present when any identity that is difficult to identify from is involved in identity conflict.

The current results should be considered within the context of a few limitations. Firstly, although this line of research targets a common phenomenon (i.e., identity conflict), it also means that tests of the broader model (e.g., whether perceived reparability influences the relationship between shame and psychological distress) need to be conducted in other contexts to ensure that these findings are not context-specific and rather apply in all situations in which shame is difficult to repair. However, the results of Chapter 2 provide some preliminary suggestions that perceived reparability does not influence the relationship between shame and psychological distress in either moral or performance failures. Secondly, like many investigations into identity conflict, the current research was cross-sectional, and in turn causal conclusions cannot be made. An experimental study that allows casual inferences would be a valuable addition to the current identity conflict literature. Finally, the study was based on self-reports taken at one moment in time. Identities are dynamic, and how they are negotiated may change over time. Longitudinal studies may provide insight into how perceived reparability and responses to identity conflict evolve over time.

This research echoes other identity conflict research in showing that identity conflict is a common phenomenon with implications for well-being. Given this is a social identity

phenomenon, consideration that the nature of the problem — and in turn the solution — in psychological well-being needs to include social groups and social identities (Jetten, Haslam, & Haslam, 2012). For example, Brook et al. (2008) suggest that group norms may need to be altered, to become more flexible and allow conflicts to be more easily accommodated. If it is the case that conflicts between important identities are only detrimental when the involved identities cannot be disidentified from, this would be a particularly poignant solution. Another possibility for individuals who are particularly affected by conflicting social identities and resulting poor psychological well-being is to engage in Compassion Focused Therapy. Compassion Focused Therapy seeks to encourage empathy toward the self and practicing thoughts that are supportive and encouraging. A systematic review suggested it improves self-critical thinking (Leaviss & Uttley, 2015). In turn, Compassion Focused Therapy may be a particularly beneficial intervention for those high in shame who have little control over the circumstances that preceded their shame and in turn must focus on their own interpretations and thoughts to alleviate their shame-related suffering.

In conclusion, the current studies echo the findings of Chapter 2 in suggesting that shame has a linear relationship with avoidance motivation, which is not influenced by perceived reparability. Perceived reparability also did not influence the relationship between shame and psychological distress. Furthermore, the interaction between conflict intensity and identity importance did not influence the relationship between shame and psychological as predicted based on previous studies. It is possible is that this effect is unique to an identity conflict that involves identities which are impossible to disidentify from or in the context of stigmatised identities. However, further research is required to test this possibility.

CHAPTER 4 – Shame and Social Identity Conflict in a Stigmatised Context: Working Mothers

This chapter will investigate whether stigmatising responses from others influences the perceived reparability of shame, and in turn whether perceived stigma impacts how a person responds to shame and/or whether they experience psychological distress. Stigma is an important consideration in the perceived reparability of shame because the perceived reparability of shame is likely to be highly dependent on the extent to which others are viewed as stigmatising compared to compassionate and respectful. For example, if a person's fellow group members express stigmatizing attitudes toward the perpetrator of a shameful transgression then that person is less likely to believe that reparation is possible in comparison to someone whose fellow group members respond with empathy and compassion. In examining the role of stigma, this chapter will also address possible alternate explanations for the results within Chapter 3. Contrary to prior research (Noor, 2004; Settles, 2004), studies reported in Chapter 3 did not find evidence that identity importance or conflict intensity influence psychological outcomes in the context of identity conflict. However, this may be because the prior research investigated identity conflict within a stigmatised context (i.e., woman scientists, working mothers) while the studies in Chapter 3 did not. It may be that shame arising from identity conflict is only problematic for well-being when the conflicting identities are stigmatised and difficult to disidentify from. The current study will investigate this possibility through measuring whether perceived stigma influences the consequences of shame within a specific demographic that often experiences social identity conflict: working mothers. Working mothers were chosen as the target population because previous research has suggested that working mothers often experience conflict between their work and parenting roles that is intense and associated with high levels of shame. Furthermore, working mothers are often stigmatised for not being able to simultaneously be

an "ideal worker" who arranges their outside responsibilities around their work (Kelly, Ammons, Chermack, & Moen, 2010) and a "good mother" whose life is child-centred (Correll, Benard, & Paik, 2007).

The Conflicts Between Work and Motherhood

Cultural ideologies surrounding motherhood often incorporate "near impossible standards" that, when not met, result in shame (Sutherland, 2010, p. 313). When the cultural expectations surrounding motherhood are coupled with desires and expectations surrounding participation in the labour force, conflict between these two demanding roles is highly likely. As political journalist Annabel Crabb neatly describes, "The obligation for working mothers, in particular, is a very precise one: the feeling that one ought to work as if one did not have children, while raising one's children as if one did not have a job" (Crabb, 2014, p. 11). In qualitative studies where working mothers discuss the demands of their dual roles, participants frequently report the guilt of not living up to their own and others' standards due to conflicts between their working and parenting roles (Guendouzi, 2006) and this conflict is often shown to be associated with poorer psychological health (Polasky & Holahan, 1998)[16]. The conflict between work and family has been described by highly-educated women as a motivator behind them choosing to leave the workforce: "I worked for awhile…it just got to be too difficult. I felt like I wasn't doing a good job at home and I wasn't doing a good job at work" (Rubin & Wooten, 2007, p. 339). Although guilt is the primary emotion discussed within these studies, it has been suggested that participants are likely describing shame (Sutherland, 2010). Quantitative studies have supported this suggestion, finding working mothers report similar levels of guilt and shame (Liss, Schiffrin, & Rizzo, 2013)

[16] The majority of research on mothering involves white middle-class women from the United States. The social norms for ethnic minorities or lower socio-economic mothers, and how these interact with working identities, may be quite different (Sutherland, 2010).

Working Mothers' Experience of Stigma

Stigma arises when an individual does not possess the social attributes that meet society's normative standards (Goffman, 1963). In turn, not only do working mothers experience the conflict between the "good mother" and "ideal worker", but this conflict is perceived by others and can result in stigma. Vignette studies have shown that participants — including those who are employers in real-life — view working mothers as less competent and are less likely to endorse the hiring, promoting or educating of working mothers in comparison to child-free working women, child-free men, and fathers (Correll et al., 2007; Cuddy, Fiske, & Glick, 2004). The fear of negative evaluation from others aggravates the shame that arises from perceived conflict between work and mothering roles. In a quantitative survey of mothers with children five-years-old or under, Liss et al. (2013) found that participants' self-discrepancies between their perceived actual and ideal mothering were positively associated with shame, but only for those who feared negative evaluation from others. For those who were less fearful of negative evaluation there was not a significant relationship between self-discrepancies and shame.

Perceived Stigma as a Proxy for Perceived Reparability

The perception of stigma from others is likely to reduce the perceived reparability of shame. Shame arises to alert us to when we have acted in a way that is incongruent with our group norms. It is suggested to act as an internal emotional barometer that alerts us to when we may be at risk of losing social status or social bonds (de Hooge, 2014; de Hooge et al., 2011; Ferguson, 2005; Gruenewald et al., 2007; Nelissen, Breugelmans, & Zeelenberg, 2013). If individuals experience shame, coupled with perceiving that others are stigmatizing them for their failure, it is likely that they will perceive their shame and relevant social bonds as more difficult to repair than if they did not perceive stigmatization from others. This is because their perceived ability to amend threatened social bonds would be lessened if they

are simultaneously perceiving that those social connections are disapproving of their circumstance.

The Current Study

The current study will apply a cross-sectional survey design to investigate working mothers' experience of stigma and identity conflict. There are two key aims: 1) to investigate whether the relationships between shame and responses to shame are moderated by perceived reparability or its proxies (intensity of identity conflict × importance of conflicting identities *or* perceived stigma) and 2) to investigate the impact of shame and shame responses on psychological distress amongst working mothers.

There are also some amendments made to the current study in order to address possible limitations in the previous chapter. Firstly, upon reflection of the wording of materials within Chapter 3, it could be that participants are not reporting a specific norm violation but rather times when it has been *difficult* to adhere to both identities without a norm violation (e.g., "Having university work to complete but also a friend who wanted to socialise" – 20 year old participant; "I got a big job but also had to maintain family harmony, meaning I had to do more around the house" – 43 year old participant). In the studies of Chapter 3 participants were asked, "Can you think of a circumstance where two or more aspects of your identities have conflicted?" (Study 3.1), or "Please describe the specific instance of conflict that occurred in the last 24 hours" (Study 3.2). It may be that these prompts do not encourage reporting of a norm violation, but more generally when responsibilities have just been more difficult to meet. This may explain the low mean of self-reported shame, given difficulty (but success) in adhering to the norms of both groups is unlikely to result in shame. The current study used amended stems that targeted instances where a person was *unable* to fulfil their responsibilities, desires or expectations associated with the conflict (see appendices J and K). Secondly, the current study includes a recently

developed measure of identity conflict management strategies (Jones & Hynie, 2017). The strategies measured include retreat (conceptualised here as an avoidance-oriented response) and reconciliation (conceptualised here as an approach and repair response) and were incorporated into the existing hypotheses. The scale also offered the opportunity for exploratory analyses that are outside the scope of the current thesis (e.g., how do those who do not report identity conflict manage their identities?).

Study 4.1

Hypotheses

Hypothesis 1. There will be a significant curvilinear relationship between shame and avoidance-type responses (i.e., avoidance motivation, retreat strategy) such that both low and high shame will be associated with higher avoidance-type responses than moderate shame (i.e., a "U" shaped relationship). The inverse will be true for approach-type responses (i.e., repair motivation, self-improvement motivation, bipolar approach, reconciliation strategy) such that both low and high shame are associated with lower approach-type responses (i.e., an inverted "U" shaped relationship).

Hypothesis 2. There will be a positive relationship between avoidance-type and psychological stress. Conversely, there will be a negative relationship between approach-type responses and psychological distress.

Hypothesis 3. Identity conflict intensity will moderate the relationship between identity importance and perceived reparability. When identity conflict intensity is low, there will be a positive relationship between identity importance and perceived reparability. When identity conflict is high, there will be a negative relationship between identity importance and perceived reparability.

Hypothesis 4. When identity conflict intensity is low, shame and avoidance-type responses will have a negative relationship, and this negative relationship between shame and

avoidance-type responses will be stronger when identities are important compared to not important. On the other hand, when identity conflict intensity is high, shame and avoidance-type responses will have a positive relationship, and this positive relationship would be stronger when identities are important compared to not important.

The opposite will be true for approach-type responses. That is, when identity conflict intensity is low, shame and approach-type responses will have a positive relationship, and this positive relationship between shame and approach-type responses will be stronger when identities are important compared to not important. On the other hand, when identity conflict intensity is high, shame and approach-type responses will have a negative relationship, and this negative relationship would be stronger when identities are important compared to not important.

Hypothesis 5. Given that avoidance-type responses are hypothesised to positively predict psychological distress, shame, identity importance and the intensity of the identity conflict are also expected to interact to predict psychological distress. That is, when identity conflict intensity is low, shame and psychological distress will have a negative relationship, and this negative relationship between shame and psychological distress will be stronger when identities are important compared to not important. On the other hand, when identity conflict intensity is high, shame and psychological distress will have a positive relationship, and this positive relationship would be stronger when identities are important compared to not important.

Hypothesis 6. There will be a significant negative relationship between perceived stigma and perceived reparability.

Hypothesis 7. Perceived stigma will moderate the relationship between shame and avoidance-type responses, such that when perceived stigma is high there will be a positive

relationship between shame and avoidance-type responses, whereas when perceived stigma is low there will be a negative relationship between shame and avoidance-type responses.

The inverse will be true for approach-type responses, such that when perceived stigma is high there will be a negative relationship between shame and approach-type responses, whereas when perceived stigma is low there will be a positive relationship between shame and approach-type responses.

Hypothesis 8. Perceived stigma will moderate the relationship between shame and psychological distress, such that when perceived stigma is high there will be a positive relationship between shame and psychological distress, whereas when perceived stigma is low there will be a negative relationship between shame and psychological distress.

Hypothesis 9. Perceived reparability will moderate the relationship between shame and avoidance-type responses, such that when perceived reparability is high there will be a negative relationship between shame and avoidance-type responses, whereas when perceived reparability is low there will be a positive relationship between shame and avoidance-type responses.

The inverse will be true for approach-type responses, such that when perceived reparability is high there will be a positive relationship between shame and approach-type responses, whereas when perceived reparability is low there will be a negative relationship between shame and approach-type responses.

Hypothesis 10. Perceived reparability will moderate the relationship between shame and psychological distress, such that when perceived reparability is high there will be a negative relationship between shame and psychological distress, whereas when perceived reparability is low there will be a positive relationship between shame and psychological distress.

Method

Statistical Power

A priori power analysis was conducted using the GPower software package (Faul & Erdfelder, 1992). I sought adequate power (.80) to detect an R^2 of .02. This is in response to the small effect sizes evident in the previous studies within this thesis. The analysis based on a 7 predictor variable equation as a baseline with alpha set at .05 suggested 395 participants were required.

Participants

Three hundred and ninety-five American working mothers were recruited via Amazon Mechanical Turk and 1 participant was removed from the sample after not passing an attention check (wording of attention check detailed in Study 2.1). Participants were required to meet three inclusion criteria; 1) be female, 2) be the parent or guardian of one or more children with at least one child living at home at least some of the time and 3) work 10 hours or more per week. Participants ages ranged from 22-62 years old (M = 37.50, SD = 9.28). On average participants were the mother or guardian to 2 children who lived with them all of the time (94.4%) as opposed to part-time. Participants worked an average of 36 hours per week and relied on formal (e.g., day-care) or informal (e.g., family or friends) childcare an average of 4 days per week. Seventy-five percent of participants indicated that they lived with a spouse, and of that number 68.4% said that they did the majority of the child care tasks, 29.4% said that they shared the child care tasks equally with their spouse and 2.2% said that their spouse did the majority of child care. Eighty-five percent of participants (N = 335) reported identity conflict that resulted in them being unable to simultaneously meet the demands of both their work and parenting roles. I conducted a post-hoc sensitivity analysis to investigate the sensitivity of analyses that would rely on only this sub-set of participants.

Based on a 7-predictor variable equation, with an alpha set at .05, the analysis suggested there was adequate power (.80) to detect an R^2 of .024, a small effect.

Procedure

After confirming that they met the inclusion criteria, participants reported the series of demographic details described above. All participants then completed measures of the importance of their work and parenting roles, the intensity of conflict experienced between these roles, perceived stigma, and psychological distress. Participants then read a description of identity conflict and asked if they had experienced it (see appendix J). If they said they did not experience identity conflict they completed the identity conflict management strategy scale (Jones & Hynie, 2017) and then finished the survey. If they said that they did experience identity conflict they were asked to provide a description of the conflict ("Please briefly describe some examples [e.g., what values/responsibilities/desires have you been unable to fulfil?]"). These remaining participants were then asked how frequently they experience conflict and described an instance in which they were unable to meet the expectations of their parenting role due to their working role, or vice-versa (see appendix K). Next, participants completed measures specific to the incident they rated: their shame, repair motivations, self-improvement motivations, avoidance motivations, bipolar approach scale, and perceived reparability. Finally, these participants completed measures of perceived identity conflict management strategies.

Materials[17]

Importance of work and parenting identities. Participants rated the importance of their work and parenting identities using the Importance to Identity Subscale of the Collective Self-Esteem Scale (Luhtanen & Crocker, 1992). This subscale consisted of 4 items for both

[17] Self-report measures that were included at the end of the survey for exploratory purposes are not reported here. They include self-theories and perceived growth.

the parenting/guardian identity (e.g., “Being a parent/guardian is an important reflection of who I am”; α = .83) and their work identity (e.g., “Being a [text piped from job title question] is an important reflection of who I am”; α = .95). They were asked to rate their agreement with these statements on a response scale (1 = *strongly disagree,* 7 = *strongly agree*). An identity importance score was calculated for both work and parenting identities by averaging the four items for each identity.

Conflict intensity. Participants’ perception of the intensity of the conflict between their working and parenting roles was measured with the three-item scale developed by Brook et al. (2008), as detailed in Study 3.1, α = .68.

Perceived stigma. An extensive search of the literature revealed a lack of stigma measures in relation to working mothers, and existing measures were unable to be appropriately adapted due to their context-relevant items (the lack of generalised stigma measures is also discussed in Brackel, 2006). In turn, I developed a 6-item measure of perceived stigma amongst working mothers that aimed to capture the stigma working mothers perceived from their colleagues and other mothers. Participants rated their responses on a response scale ranging from “strongly disagree” (1) to “strongly agree” (7). A principal components analysis was conducted on the 6 items with oblique rotation (direct oblimin). The Kaiser-Meyer-Olkin measure verified the sampling adequacy (KMO = .79; Hutcheson & Sofroniou, 1999), and all KMO values for individual items were greater than .69 (Field, 2013). Two factors had eigenvalues over Kaiser’s criterion of 1 and in combination explained 81% of the variance. Three items measuring stigma at work loaded together, and 2 items measuring stigma from other mothers loaded together. One item cross loaded “I have felt disapproved of as a parent/guardian when I have prioritised my work responsibilities”, presumably because — unlike the other items — it did not include an indication of the source

of stigma. In turn, it was not included within the resulting two scales: work stigma and mother stigma. Table 4.1 shows the factor loadings after rotation.

Table 4.1

Factor Loadings, Eigenvalues, and Percentage (%) of Variance Explained Within the Perceived Stigma Scale

Item	Factor Loading	
I feel that I am taken less seriously at work because I am also a mother/guardian	**.88**	.01
I have felt disapproved of at work when I have prioritized my responsibilities as a mother/guardian	**.88**	.01
I have been treated unfairly at work because I am a mother/guardian	**.96**	-.08
Other mother/guardians judge me because I work	-.04	**.98**
Other mothers/guardians treat me differently because I work	.03	**.93**
I have felt disapproved of as a mother/guardian when I have prioritized my work responsibilities	*.52*	*.37*
Eigenvalue	3.50	1.06
% of variance	63.28	17.68
α	.89	.92

Note. Italicised items were not included in the creation of scales.

Psychological distress. As described in more detail in Study 2.1, The Depression Anxiety and Stress Scale-21 is a short form of (Lovibond & Lovibond, 1995) 42-item self-report measure of depression (7 items, α = .92), anxiety (7 items, α = .89) and stress (7 items, α = .88).

Identity conflict management strategy. A recently developed measure of identity conflict management strategies was included for exploratory purposes (Jones & Hynie, 2017). This is a 13-item measure with four sub-scales. The sub-scales analysed in the current study include retreat (the avoidance and compartmentalisation of conflicting identities, e.g., "I actively avoid situations that cause conflict between these two identities"; 4 items; α = .58) and reconciliation (trying to balance or integrate conflicting identities, e.g. "I try to find a middle ground to keep at least some aspects of both identities"; 4 items; α = .75). The retreat and reconciliation sub-scales were conceptualised to be avoidance and approach orientated, respectively, and in turn were incorporated into the existing hypotheses[18].

Shame. Participants were asked to mark the degree to which they were experiencing a list of experiences during the identity conflict scenario they described. Participants rated their agreement with 4 shame items: "I felt ashamed", "I felt disgusted with myself", "I felt like I want to sink to the ground", and "I felt like I couldn't face myself" (α = .89).

Identity conflict frequency. Participants were asked, "How frequently do you experience instances when it is difficult to meet the expectations of both your parent/guardian and work roles?" They provided their responses on a response scale ranging from "Less than once a week" (1) to "7 times or more per week" (7).

Repair, self-improvement, and avoidance motivations. Using Lickel et al. (2014) scales, participants rated their motivation to repair (e.g., "I felt like I should apologise for what happened", α = .79, 3 items) avoid (e.g., "I wanted to be completely unassociated with the event", α = .87, 3 items) and self-improve (e.g., "I felt the urge to be a better person", α = .83; 4 items) in response to the conflict they recalled.

[18] The other two subscales are realignment (prioritising one identity over the other, e.g. "I focus more on one of these identities than on the other"; 3 items; α =.63), and reflection (using whichever identity accommodates others or the situation, e.g. "I choose the identity that helps me fit in with other people"; 2 items; α = .65). Given they did not align with approach or avoidance orientations they were excluded from the current analyses in the interests of parsimony.

Bipolar approach scale. Participants were asked to describe how they responded to the identity conflict situation they described. They were also provided with a brief description of what approach and avoidance responses may look like (appendix L) and then asked "Do you think the response you described is more of an approach or avoidance response" on a 5-point response scale ranging from "mostly avoidance" (1) to "mostly approach" (5).

Reparability. Participants rated the how reparable they perceived the situation to be, using the 6-item measure developed in Study 2.1 (α = .89).

Results

Statistical Approach

To test curvilinear relationships, the predictor (shame) was centred prior to calculating the quadratic term. In the first step the dependent variable was regressed onto shame to test the linear relationship. In the second step the quadratic term of shame was entered into the model (Aiken & West, 1991). To test moderation hypotheses, Model 1 of the PROCESS macro (Hayes, 2013) was applied with 5000 bootstrapped samples. To test moderated moderation hypotheses, Model 3 of the PROCESS macro (Hayes, 2013) was applied with 5000 bootstrapped samples. All predictor variables were centred prior to regression analyses (Aiken & West, 1991). Table 4.2 provides a summary of the descriptive statistics and intercorrelations between key variables.

Table 4.2

Summary of Intercorrelations, Means, Standard Deviations and Ranges for Key Variables

	M (SD)	Range	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Shame	2.02 (1.08)	1-5	-	-.50**	.19**	.05	-.09	.21**	.23**	-.17**	.44**	.31**	.46**	.18**	-.15**	.40**	.38**	.39**
2. Reparability	5.23 (1.10)	1-7	-	-	-.22**	-.04	.14*	-.37**	-.34**	.23**	-.52**	-.22**	-.46**	-.04	.26**	-.36**	-.37**	-.31**
3. Conflict intensity	2.97 (.82)	1-5	-	-	-	-.25**	-.08	.45**	.26**	-.07	.17**	.06	.10	.15**	-.22**	.26**	.21**	.37**
4. Work identity importance	4.58 (1.69)	1-7	-	-	-	-	.18**	-.17**	.08	.06	-.03	.09	.09	-.06	.35**	-.07	-.05	-.10
5. Parent identity importance	6.25 (.85)	1-7	-	-	-	-	-	-.10	-.14**	-.03	-.11**	305	-.09	.08	.16**	-.20**	-.16**	-.13**
6. Work stigma	3.01 (1.68)	1-7	-	-	-	-	-	-	.50**	-.04	.17**	.12**	.14*	.15**	-.19**	.26**	.20**	.32**
7. Mother stigma	2.79 (1.60)	1-7	-	-	-	-	-	-	-	.00	.16**	.07	.19**	.07	-.14**	.19**	.19**	.28**
8. Bipolar approach	3.85 (1.32)	1-5	-	-	-	-	-	-	-	-	-.43**	.00	-.24**	.00	.18**	-.26**	-.26**	-.19**
9. Avoidance motivation	3.10 (1.60)	1-7	-	-	-	-	-	-	-	-	-	.18**	.42**	.14**	-.16**	.36**	.37**	.34**
10. Repair motivation	4.69 (1.58)	1-7	-	-	-	-	-	-	-	-	-	-	.35**	.20**	.14*	.05	.07	.12*
11. Self-improvement motivation	3.64 (1.52)	1-7	-	-	-	-	-	-	-	-	-	-	-	.15**	-.08	.29**	.34**	.33**
12. Retreat	4.76 (.99)	1-7	-	-	-	-	-	-	-	-	-	-	-	-	.21**	.16**	.15**	.16**
13. Reconciliation	5.42 (.88)	1-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-.19**	-.15**	-.18**
14. Depression	3.32 (4.26)	0-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.74**	.70**
15. Anxiety	3.12 (4.11)	0-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.38**
16. Stress	6.85 (4.71)	0-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note. ** Correlation is significant at the .01 level (2-tailed). * Correlation is significant at the .05 level (2-tailed).

Hypothesis 1. Curvilinear Relationship Between Shame and Responses.

Table 4.3 provides a summary of the regression models. The results demonstrate a small curvilinear relationship between shame and repair motivation: aligned with the hypothesis when shame was low (1 SD below the mean) it had a positive relationship with repair motivation (B = .91) but contrary to the hypothesis when shame was high (1 SD above the mean) this positive relationship was smaller (rather than negative; B = .51; see Figure 4.1). Contrary to the hypotheses, this was also the case for avoidance motivation: when shame was low it had a positive relationship with repair motivation (B = 1.10) but when shame was high this positive relationship was smaller (B = .70; Figure 4.2). There was also a significant curvilinear relationship between shame and bipolar approach that contradicted the hypothesis: when shame was low it had a negative relationship with bipolar approach (B = -.48) but when shame was high this negative relationship was smaller (B = -.24; Figure 4.3). There was no evidence of a curvilinear relationship between shame and self-improvement motivation, nor the retreat or reconciliation management strategies.

Table 4.3

Results of Hierarchical Regression Analysis Testing Linear and Curvilinear Relationships Between Shame and Responses

	B	SE_B	β	p	$CI_{95\%}$
Avoidance Motivation					
Step 1		$R^2 = .19, F\ (1, 333) = 79.45, p < .001$			
(Constant)	3.08	.079		< .001	[2.93; 3.26]
Shame	.66	.073	.49	< .001	[.51; .80]
Step 2		$\Delta R^2 = .03, \Delta F\ (1, 332) = 10.55, p = .001$			
(Constant)	3.32	.106		< .001	[3.11; 3.52]
Shame	.90	.106	.61	< .001	[.70; 1.11]

Shame^2	-.20	.062	-.23	.001	[-.33; -.080]
Repair Motivation					
Step 1		$R^2 = .10, F\ (1, 333) = 36.08, p < .001$			
(Constant)	4.69	.082		< .001	[4.53; 4.82]
Shame	.46	.076	.31	< .001	[.31; .61]
Step 2		$\Delta R^2 = .03, \Delta F\ (1, 332) = 9.72, p = .002$			
(Constant)	4.93	.110		< .001	[4.71; 5.14]
Shame	.71	.110	.48	< .001	[.49; .92]
Shame^2	-.20	.065	-.23	.002	[-.33; -.08]
Self-Improvement Motivation					
Step 1		$R^2 = .22, F\ (1, 333) = 91.35, p < .001$			
(Constant)	3.64	.074		< .001	[3.50; 3.79]
Shame	.70	.069	.46	< .001	[.52; .80]
Step 2		$\Delta R^2 = .01, \Delta F\ (1, 332) = 3.26, p = .072$			
(Constant)	3.77	.101		< .001	[3.57; 3.97]
Shame	.79	.100	.56	< .001	[.59; .99]
Shame^2	-.11	.059	-.13	.072	[-.22; .01]
Bipolar Approach					
Step 1		$R^2 = .17, F\ (1, 333) = 10.01, p = .002$			
(Constant)	3.84	.071		<.001	[3.71; 3.99]
Shame	-.21	.066	-.17	.002	[-.34; -.08]
Step 2		$\Delta R^2 = .01, \Delta F\ (1, 332) = 4.45, p = .036$			
(Constant)	3.71	.097		<.001	[3.52; 3.90]
Shame	-.36	.096	-.29	<.001	[-.55; -.17]
Shame^2	.12	.057	.17	.036	[.01; .23]
Retreat					

Step 1		$R^2 = .03$, $F\ (1, 333) = 11.23$, $p = .001$			
(Constant)	4.78	.053		< .001	[4.67; 4.88]
Shame	.17	.049	.181	.001	[.07; .26]
Step 2		$\Delta R^2 = .00$, $\Delta F\ (1, 332) = .32$, $p = .573$			
(Constant)	4.81	.072		< .001	[4.66; 4.95]
Shame	.20	.072	.21	.007	[.05; .34]
Shame^2	-.02	.0043	-.05	.573	[-.11; .06]
Reconciliation					
Step 1		$R^2 = .02$, $F\ (1, 333) = 7.67$, $p = .006$			
(Constant)	5.38	.047		< .001	[5.29; 5.47]
Shame	-.12	.044	-.15	.006	[-.21; -.04]
Step 2		$\Delta R^2 = .02$, $\Delta F\ (1, 332) = .08$, $p = .779$			
(Constant)	5.39	.064		< .001	[5.27; 5.52]
Shame	-.11	.064	-.13	.091	[-.23; .02]
Shame^2	-.01	.038	-.02	.779	[-.09; .06]

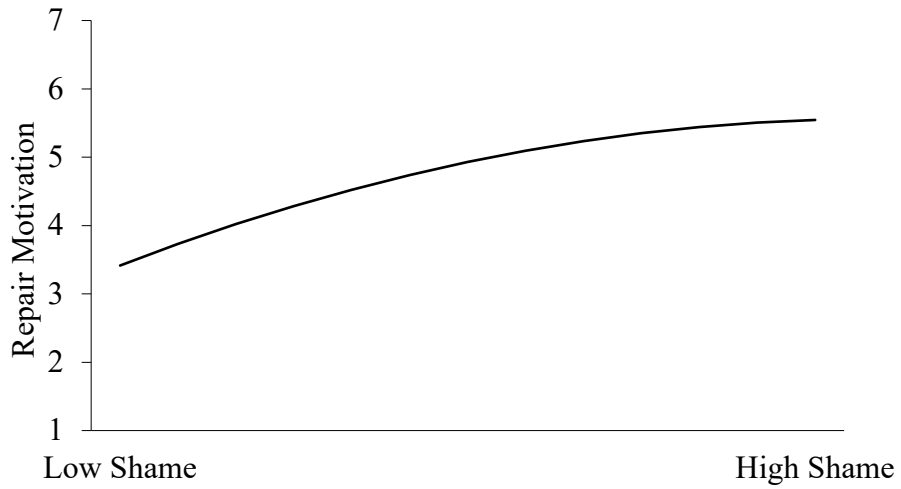

Figure 4.1. *Curvilinear relationship between shame and repair motivation.*

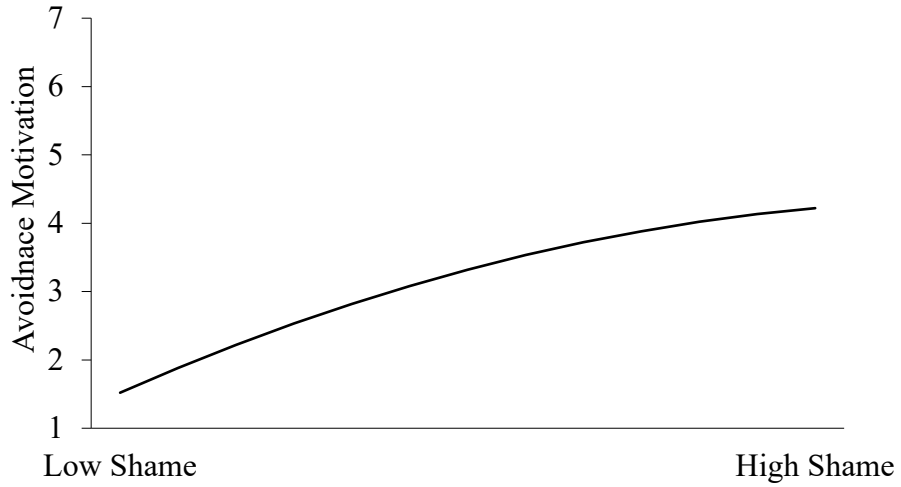

Figure 4.2. *Curvilinear relationship between shame and avoidance motivation.*

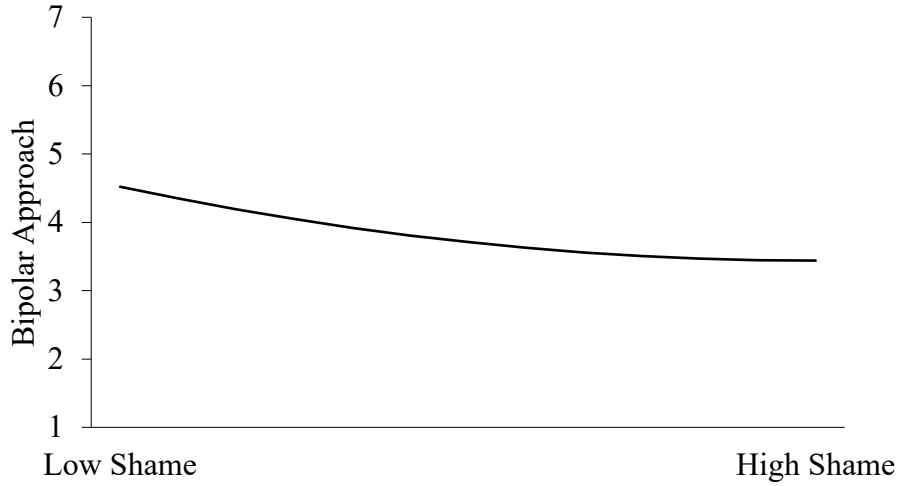

Figure 4.3. *Curvilinear relationship between shame and bipolar approach.*

Hypothesis 2. Responses and Identity Conflict Management Strategies Correlating with Psychological Distress

Aligned with the hypothesis, results suggested that avoidance-type responses are associated with higher psychological distress, while approach and repair-type responses are either associated with lower psychological distress (i.e., bipolar approach, reconciliation strategy) or not associated with psychological distress (i.e., repair motivation; see Table 4.1).

There was one anomaly: self-improvement motivation was associated with higher psychological distress (Table 4.1). Given there was a significant positive correlation between avoidance and repair a linear regression of avoidance and repair on depression, anxiety and stress was conducted to understand the unique variance explained by avoidance and repair. Table 4.4 provides a summary of the regression models. These results suggest that avoidance has a positive linear relationship with all psychological distress variables, and that there is no significant linear relationship between repair and psychological distress when the variance explained by avoidance is accounted for.

Table 4.4

Linear Regressions Predicting Psychological Distress with Avoidance and Repair Motivations

	B	SE_B	β	*p*	$CI_{95\%}$
Depression		$R^2 = .13$, $F\ (2, 332) = 23.93$, $p < .001$			
(Constant)	.81	.763		.291	[-.70; 2.31]
Avoidance	.97	.141	.36	< .001	[.69; 1.24]
Repair	-.05	.143	-.02	.737	[-.33; .23]
Anxiety		$R^2 = .14$, $F\ (2, 332) = 26.09$, $p < .001$			
(Constant)	.27	.748		.723	[-1.21; 1.74]
Avoidance	.98	.138	.37	<.001	[.71; 1.25]
Repair	.01	.140	.01	.925	[-.26; .29]
Stress		$R^2 = .12$, $F\ (2, 332) = 22.95$, $p < .001$			
(Constant)	3.57	.808		< .001	[1.98; 5.16]
Avoidance	.95	.149	.33	< .001	[.65; 1.24]
Repair	.18	.151	.06	.226	[-.11; .48]

Hypothesis 3. Moderating Effect of Identity Conflict Intensity on the Relationship Between Identity Importance and Perceived Reparability

Contrary to the hypothesis, there was no evidence of an interaction between the importance of work or parent identity with conflict intensity to predict perceived reparability. Conflict intensity had a negative main effect on perceived reparability. Work identity importance had a negative main effect on perceived reparability while parent identity importance had a positive main effect on perceived reparability.

Table 4.5

Results of Hierarchical Regression Analyses Predicting Perceived Reparability with Identity Importance, Conflict Intensity and Their Two-Way Interaction

	B	SE_B	*t*	*p*	$CI_{95\%}$
Work Identity Importance	$R^2 = .07$, $F = 7.87$, $p < .001$, $\Delta R^2 = .01$, $\Delta F = 2.81$, $p = .095$				
Constant	5.62	.067	84.17	< .001	[5.49; 5.75]
Conflict Intensity	-.39	.085	-4.65	< .001	[-.56; -.23]
Work Identity Importance	-.09	.040	-2.11	.035	[-.16; -.01]
Work Identity Importance × Conflict Intensity	.08	.045	1.67	.095	[-.01; .16]
Parent Identity Importance	$R^2 = .06$, $F = 7.40$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .07$, $p = .793$				
Constant	5.60	.065	86.02	< .001	[5.47; 5.72]
Conflict Intensity	-.32	.082	-3.93	< .001	[-.48; -.16]
Parent Identity Importance	.17	.078	2.18	.030	[.02; .32]
Parent Identity Importance × Conflict Intensity	.02	.088	.26	.793	[-.15; .20]

Hypothesis 4. The Influence of Shame, Identity Importance and Identity Conflict Intensity on Responses

Contrary to the hypotheses, there was no evidence of any significant three-way interactions between shame, identity importance and conflict on avoidance or approach-type responses (see Tables 4.6 and 4.7). There were some unpredicted two-way interactions between shame and identity importance.

Regarding parent identity importance, shame and retreat strategy had a positive relationship but only when parent identity importance was low (low parent identity importance: B = .25, SE = .074, p = .001, $CI_{95\%}$ [.10; .39], high parent identity importance: B = .06, SE = .066, p = .394, $CI_{95\%}$ [-.07; .19]; see Figure 4.4). There was also a significant interaction between shame and parent identity importance on reconciliation strategy, such that there was a significant negative relationship between shame and reconciliation, but only when identity importance was high (low parent identity importance: B = .03, SE = .065, p = .676, $CI_{95\%}$ [-.10; .16], high parent identity importance: B = -.18, SE = .058, p = .002, $CI_{95\%}$ [-.29; -.07; see Figure 4.5]). This suggests that an avoidance-type strategy (retreat) is more likely when parent identity importance is low and an approach-type strategy (reconciliation) is less likely when parent identity importance is high.

Regarding work identity importance, there was a significant interaction between shame and work identity importance on repair motivation: when work identity importance was low there was a significant positive relationship between shame and repair motivation, B = .65, SE = .116, p < .001, $CI_{95\%}$ [.42; .88], whereas when work identity importance was high this relationship became smaller, B = .29, SE = .105, p = .005, $CI_{95\%}$ [.08; .50]. See Figure 4.6.

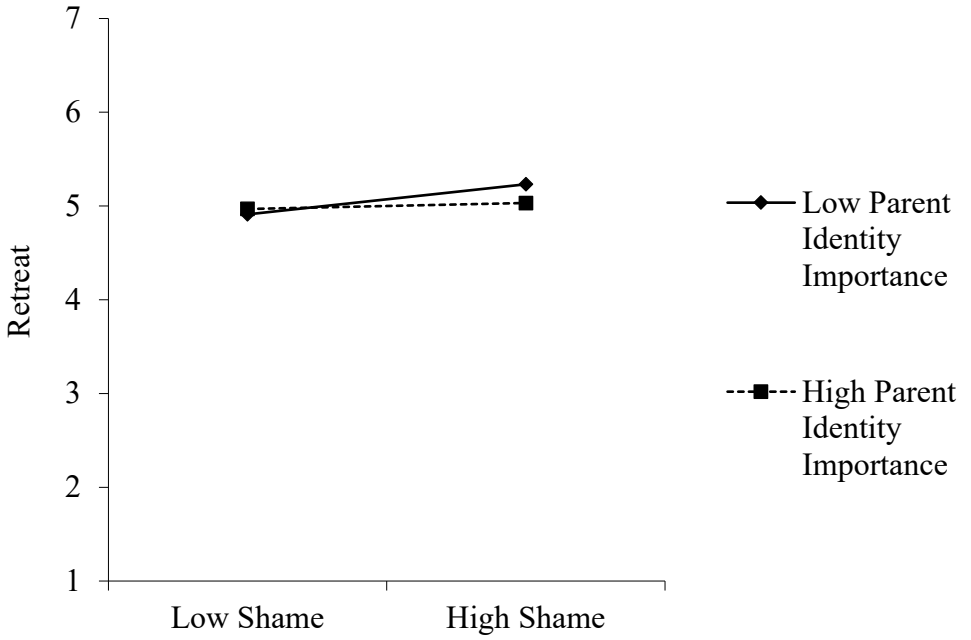

Figure 4.4. Interaction between Shame and Parent Identity Importance on Retreat Strategy.

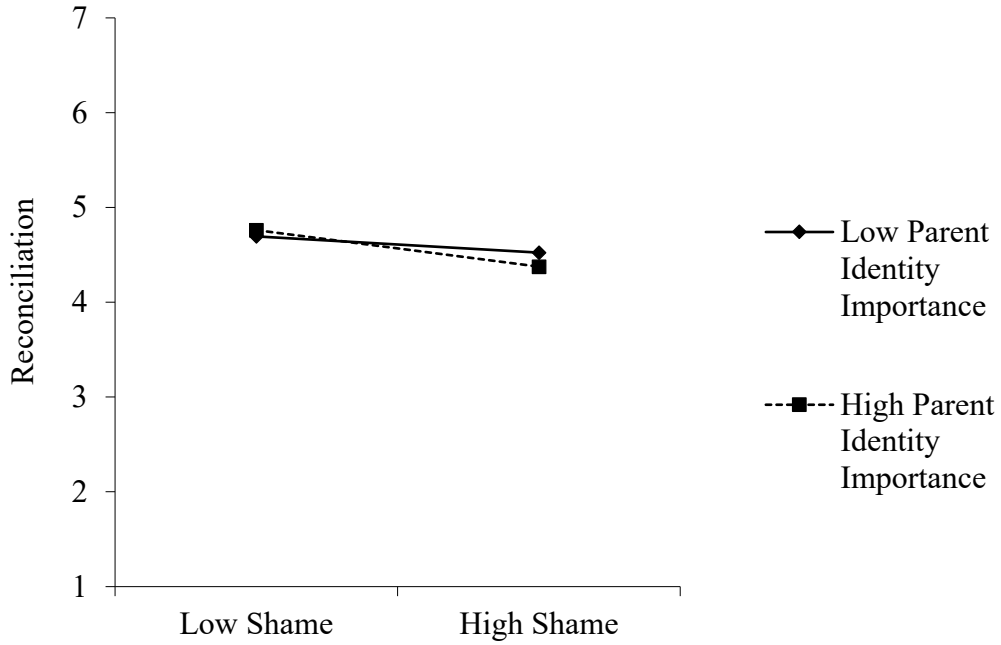

Figure 4.5. Interaction between Shame and Parent Identity Importance on Reconciliation Strategy.

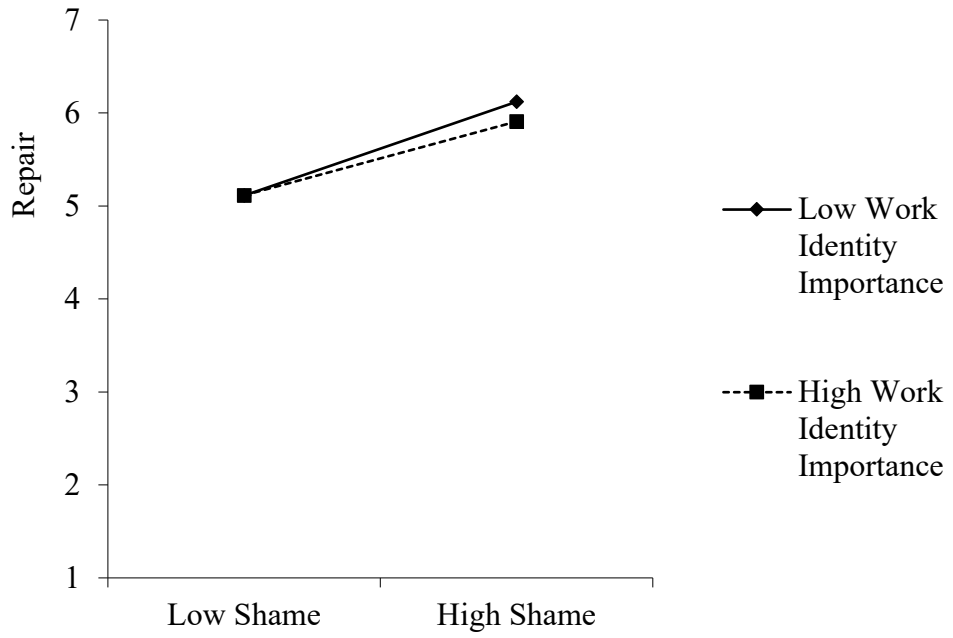

Figure 4.6. Interaction between Shame and Work Identity Importance on Repair Motivation.

Table 4.6

Results of Hierarchical Regression Analyses Predicting Responses with Shame, Work Identity Importance, Conflict Intensity and Their Two- and Three-Way Interactions

	B	SE_B	*t*	*p*	$CI_{95\%}$
Avoidance Motivation	$R^2 = .21$, $F = 12.17$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .08$, $p = .773$				
Constant	3.04	.083	36.48	< .001	[2.88; 3.21]
Conflict Intensity	.17	.106	1.61	.109	[-.04; .38]
Shame	.63	.078	8.04	< .001	[.47; .78]
Work Identity Importance	-.02	.050	-.41	.676	[-.12; .08]
Shame × Conflict Intensity	.08	.094	.88	.377	[-.10; .27]
Shame × Work Identity Importance	.00	.043	.09	.927	[-.08; .09]
Work Identity Importance × Conflict Intensity	-.07	.056	-1.17	.243	[-.18; .04]
Shame × Work Identity Importance × Conflict Intensity	.01	.050	.29	.773	[-.08; .11]
Repair Motivation	$R^2 = .13$, $F = 6.85$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .19$, $p = .667$				
Constant	4.67	.086	54.40	< .001	[4.51; 4.85]
Conflict Intensity	.08	.109	.73	.464	[-.13; .29]
Shame	.47	.080	5.86	< .001	[.31; .63]
Work Identity Importance	.10	.052	1.87	.063	[-.01; .20]
Shame × Conflict Intensity	-.07	.097	-.67	.500	[-.26; .13]
Shame × Work Identity Importance	-.10	.045	-2.35	.019	[-.19; -.02]
Work Identity Importance × Conflict Intensity	-.08	.058	-1.31	.190	[-.19; .04]
Shame × Work Identity Importance × Conflict Intensity	.02	.052	.43	.666	[-.08; .12]
Self-Improvement Motivation	$R^2 = .23$, $F = 14.07$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .13$, $p = .722$				

Constant	3.60	.078	46.09	< .001	[3.45; 3.76]
Conflict Intensity	.08	.099	.80	.423	[-.12; .27]
Shame	.64	.073	8.78	< .001	[.50; .79]
Work Identity Importance	.08	.047	1.82	.070	[-.01; .18]
Shame × Conflict Intensity	.04	.089	.50	.615	[-.13; .22]
Shame × Work Identity Importance	-.01	.041	-.13	.899	[-.08; .07]
Work Identity Importance × Conflict Intensity	-.10	.052	-1.95	.052	[-.21; .00]
Shame × Work Identity Importance × Conflict Intensity	-.02	.047	-.36	.721	[-.11; ,08]
Bipolar Approach	$R^2 = .04$, $F = 1.88$, $p = .072$, $\Delta R^2 = .00$, $\Delta F = .05$, $p = .828$				
Constant	3.86	.076	51.06	< .001	[3.71; 4.01]
Conflict Intensity	-.02	.096	-.19	.846	[-.21; .17]
Shame	-.21	.071	-2.90	.004	[-.34; -.07]
Work Identity Importance	.06	.046	1.26	.207	[-.03; .15]
Shame × Conflict Intensity	-.03	.085	-.40	.687	[-.20; .13]
Shame × Work Identity Importance	-.04	.039	-.99	.322	[-.12; .04]
Work Identity Importance × Conflict Intensity	.01	.050	.15	.883	[-.09; .11]
Shame × Work Identity Importance × Conflict Intensity	-.01	.045	-.22	.828	[-.10; .08]
Retreat	$R^2 = .05$, $F = 2.56$, $p = .014$, $\Delta R^2 = .00$, $\Delta F = .36$, $p = .550$				
Constant	4.79	.056	85.83	< .001	[4.68; 4.90]
Conflict Intensity	.14	.071	1.94	.054	[-.00; .28]
Shame	.13	.052	2.57	.011	[.03; .24]
Work Identity Importance	-.02	.034	-.54	.587	[-.08; .05]
Shame × Conflict Intensity	.03	.063	.52	.600	[-.09; .16]

Shame × Work Identity Importance	.00	.029	.02	.982	[-.06; .06]
Work Identity Importance × Conflict Intensity	.03	.037	.89	.376	[-.04; .11]
Shame × Work Identity Importance × Conflict Intensity	-.02	.033	-.60	.550	[-.09; .05]
Reconciliation	$R^2 = .15$, $F = 7.98$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = 1.86$, $p = .174$				
Constant	5.39	.047	115.15	< .001	[5.30; 5.48]
Conflict Intensity	-.12	.060	-1.99	.048	[-.24; -.00]
Shame	-.10	.044	-2.21	.028	[-.18; -.01]
Work Identity Importance	.14	.028	5.12	< .001	[.09; .20]
Shame × Conflict Intensity	-.06	.053	-1.15	.250	[-.17; .04]
Shame × Work Identity Importance	-.04	.024	-1.72	.087	[-.09; .01]
Work Identity Importance × Conflict Intensity	.01	.031	.43	.669	[-.05; .08]
Shame × Work Identity Importance × Conflict Intensity	.04	.028	1.36	.174	[-.02; .09]

Note. Overall model $df = 7, 327$. Three-way interaction $df = 1, 327$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

Table 4.7

Results of Hierarchical Regression Analyses Predicting Responses with Shame, Parent Identity Importance, Conflict Intensity and Their Two- and Three-Way Interactions

	B	SE_B	*t*	*p*	$CI_{95\%}$
Avoidance Motivation	$R^2 = .21$, $F = 12.47$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .03$, $p = .873$				
Constant	3.07	.080	38.20	< .001	[2.91; 3.23]
Conflict Intensity	.16	.103	1.59	.112	[-.04; .37]
Shame	.61	.077	7.89	< .001	[.46; .76]
Parent Identity Importance	-.11	.099	-1.09	.277	[-.30; .09]
Shame × Conflict Intensity	.08	.095	.80	.427	[-.11; .26]
Shame × Parent Identity Importance	-.08	.091	-.90	.371	[-.26; .10]
Parent Identity Importance × Conflict Intensity	.09	.123	.75	.454	[-.15; .33]
Shame × Parent Identity Importance × Conflict Intensity	-.01	.093	-.16	.873	[-.20; .17]
Repair Motivation	$R^2 = .11$, $F = 4.85$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = 1.72$, $p = .191$				
Constant	4.68	.084	55.82	< .001	[4.52; 4.85]
Conflict Intensity	.04	.107	.35	.726	[-.17; .25]
Shame	.48	.080	6.04	< .001	[.33; .64]
Parent Identity Importance	.16	.103	1.58	.115	[-.04; .37]
Shame × Conflict Intensity	-.03	.099	-.35	.727	[-.23; .16]
Shame × Parent Identity Importance	-.10	.095	-1.04	.299	[-.29; .09]
Parent Identity Importance × Conflict Intensity	-.17	.129	-1.29	.197	[-.42; .09]
Shame × Parent Identity Importance × Conflict Intensity	.13	.098	1.31	.191	[-.06; .32]
Self-Improvement Motivation	$R^2 = .22$, $F = 13.13$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .00$, $p = .983$				

Constant	3.64	.076	47.79	< .001	[3. 49; 3.79]
Conflict Intensity	.01	.097	.10	.919	[-.18; .20]
Shame	.64	.073	8.84	< .001	[.50; .79]
Parent Identity Importance	-.10	.094	-1.05	.293	[-.28; .09]
Shame × Conflict Intensity	.04	.090	.48	.634	[-.13; .22]
Shame × Parent Identity Importance	.02	.087	.24	.804	[-.15; .19]
Parent Identity Importance × Conflict Intensity	-.05	.117	-.40	.688	[-.28; .18]
Shame × Parent Identity Importance × Conflict Intensity	-.00	.088	-.02	.983	[-.18; .17]
Bipolar Approach	$R^2 = .04$, $F = 1.92$, $p = .066$, $\Delta R^2 = .00$, $\Delta F = .65$, $p = .420$				
Constant	3.85	.073	52.73	< .001	[3.70; 3.99]
Conflict Intensity	-.05	.093	-.59	.558	[-.24; .13]
Shame	-.20	.070	-2.83	.005	[-.33; -.05]
Parent Identity Importance	-.08	.089	-.92	.360	[-.26; .09]
Shame × Conflict Intensity	.01	.086	.10	.922	[-.16; .18]
Shame × Parent Identity Importance	-.05	.083	-.59	.557	[-.21; .11]
Parent Identity Importance × Conflict Intensity	.09	.111	.83	.404	[-.13; .31]
Shame × Parent Identity Importance × Conflict Intensity	.07	.085	.81	.420	[-.10; .23]
Retreat	$R^2 = .08$, $F = 4.10$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .00$, $p = .991$				
Constant	4.77	.053	89.85	< .001	[4.67; 4.88]
Conflict Intensity	.16	.068	2.38	.018	[.03; .30]
Shame	.15	.051	2.88	.004	[.05; .25]
Parent Identity Importance	.17	.065	2.65	.009	[.04; .30]
Shame × Conflict Intensity	.02	.063	.35	.730	[-.10; .14]

Shame × Parent Identity Importance	-.12	.060	-2.00	.046	[-.24; -.00]
Parent Identity Importance × Conflict Intensity	12	.081	1.49	.138	[-.04; .28]
Shame × Parent Identity Importance × Conflict Intensity	.00	.062	.01	.991	[-.12; .12]
Reconciliation	$R^2 = .10$, $F = 4.93$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .01$, $p = .919$				
Constant	5.38	.047	115.52	< .001	[5.29; 5.47]
Conflict Intensity	-.20	.060	-3.42	.001	[-.32; -.09]
Shame	-.08	.045	-1.85	.065	[-.17; .01]
Parent Identity Importance	.15	.057	2.63	.009	[.04; .26]
Shame × Conflict Intensity	-.02	.055	-.34	.732	[-.13; .09]
Shame × Parent Identity Importance	-.13	.053	-2.46	.014	[-.23; -.03]
Parent Identity Importance × Conflict Intensity	.09	.071	1.32	.189	[-.05; .23]
Shame × Parent Identity Importance × Conflict Intensity	.01	.054	.10	.919	[-.10; .11]

Note. Overall model $df = 7, 327$. Three-way interaction $df = 1, 127$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

Hypothesis 5. The Influence of Shame, Identity Importance and Conflict Intensity on Psychological Distress

Contrary to predictions, there were no significant three-way interactions between shame, identity importance and conflict intensity on psychological distress (see Tables 4.8 and 4.9). The only significant interaction was between shame and conflict intensity on anxiety, such that the positive relationship between shame and anxiety was larger when conflict intensity was high, $B = 1.75$, SE = .261, $p < .001$, $CI_{95\%}$ [1.24; 2.26], compared to low, $B = .88$, SE = .327, $p = .007$, $CI_{95\%}$ [.24; 1.52], see Figure 4.7. This is somewhat aligned with the hypothesis, in that shame is more likely to be associated with psychological distress when conflict intensity is high compared to low.

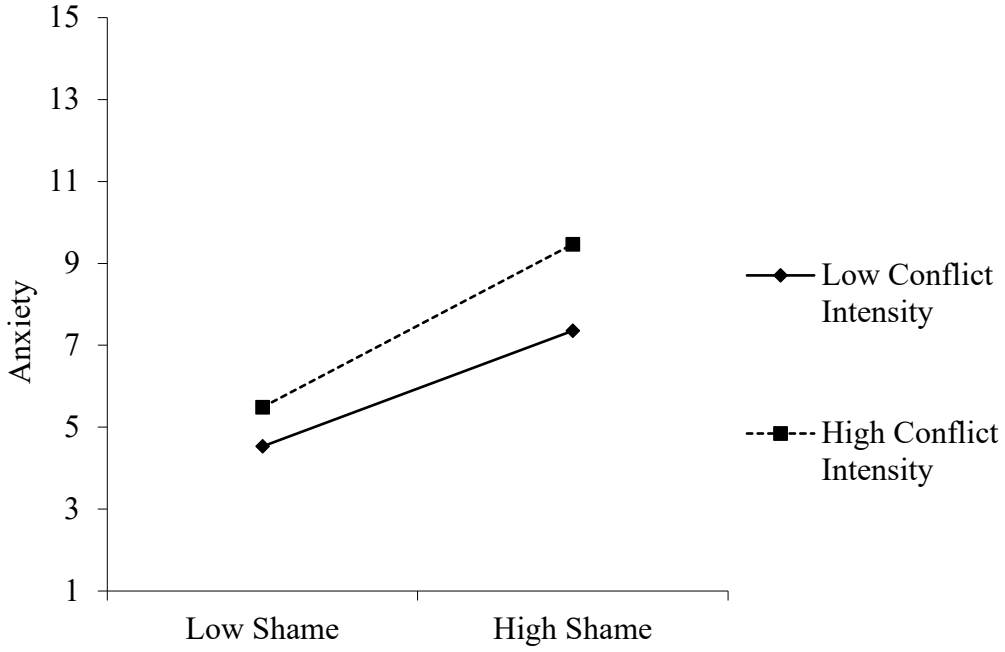

Figure 4.7. Interaction between Shame and Conflict Intensity on Anxiety.

Table 4.8

Results of Hierarchical Regression Analyses Predicting Psychological Distress with Shame, Work Identity Importance, Conflict Intensity and Their Two- and Three-Way Interactions

	B	SE_B	*t*	*p*	$CI_{95\%}$
Depression	$R^2 = .20, F = 11.68, p < .001, \Delta R^2 = .01, \Delta F = 2.25, p = .135$				
Constant	3.52	.226	15.60	< .001	[3.08; 3.87]
Conflict Intensity	.72	.287	2.52	.012	[.16; 1.29]
Shame	1.48	.212	7.00	< .001	[1.06; 1.90]
Work Identity Importance	-.21	.136	-1.51	.133	[-.47; .06]
Shame × Conflict Intensity	.27	.256	1.07	.287	[-.23; .78]
Shame × Work Identity Importance	.06	.117	.51	.613	[-.17; .29]
Work Identity Importance × Conflict Intensity	.12	.151	.78	.434	[-.18; .42]

Shame × Work Identity Importance × Conflict Intensity	.20	.135	1.50	.135	[-.06; .47]
Anxiety	$R^2 = .17, F = 9.41, p < .001, \Delta R^2 = .00, \Delta F = .52, p = .473$				
Constant	3.29	.227	14.49	< .001	[2.84; 3.74]
Conflict Intensity	.45	.288	1.56	.119	[-.12; 1.02]
Shame	1.32	.213	6.19	< .001	[.90; 1.73]
Work Identity Importance	-.09	.137	-.69	.492	[-.36; .18]
Shame × Conflict Intensity	.54	.257	2.11	.036	[.04; 1.05]
Shame × Work Identity Importance	.11	.118	.98	.329	[-.12; .35]
Work Identity Importance × Conflict Intensity	.10	.152	.66	.507	[-.20; .40]
Shame × Work Identity Importance × Conflict Intensity	-.10	.136	-.72	.473	[-.37; .17]
Stress	$R^2 = .22, F = 13.37, p < .001, \Delta R^2 = .00, \Delta F = .00, p = .983$				
Constant	7.41	.235	31.50	< .001	[6.94; 7.87]
Conflict Intensity	1.42	.299	4.77	< .001	[.84; 2.01]
Shame	1.47	.220	6.67	< .001	[1.04; 1.90]
Work Identity Importance	-.08	.141	-.55	.583	[-.36; .20]
Shame × Conflict Intensity	-.10	.266	-.38	.701	[-.62; .42]
Shame × Work Identity Importance	.03	.122	.25	.800	[-.21; .27]
Work Identity Importance × Conflict Intensity	.143	.158	.91	.364	[-.17; .45]
Shame × Work Identity Importance × Conflict Intensity	-.00	.141	-.02	.983	[-.28; .27]

Note. Overall model $df = 7, 327$. Three-way interaction $df = 1, 327$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

Table 4.9

Results of Hierarchical Regression Analyses Predicting Psychological Distress with Shame, Parent Identity Importance, Conflict Intensity and Their Two- and Three-Way Interactions

	B	SE_B	*t*	*p*	$CI_{95\%}$
Depression	$R^2 = .24$, $F = 14.47$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .32$, $p = .001$				
Constant	3.48	.213	16.32	< .001	[3.06; 3.90]
Conflict Intensity	.81	.273	2.96	.003	[.27; 1.34]
Shame	1.39	.204	6.80	< .001	[.99; 1.79]
Parent Identity Importance	-.51	.262	-1.95	.052	[-1.03; .01]
Shame × Conflict Intensity	.03	.251	.11	.913	[-.47; .52]
Shame × Parent Identity Importance	-.28	.242	-1.15	.252	[-.75; .20]
Parent Identity Importance × Conflict Intensity	-.77	.327	-2.36	.019	[-1.41; -.13]
Shame × Parent Identity Importance × Conflict Intensity	-.14	.248	-.56	.574	[-.63; .35]
Anxiety	$R^2 = .17$, $F = 9.65$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .45$, $p = .504$				
Constant	3.25	.219	14.84	< .001	[2.82; 3.68]
Conflict Intensity	.54	.280	1.94	.053	[-.01; 1.09]
Shame	1.35	.209	6.43	< .001	[.93; 1.76]
Parent Identity Importance	-.36	.269	-1.33	.183	[-.89; .17]
Shame × Conflict Intensity	.41	.257	1.58	.116	[-.10; .91]
Shame × Parent Identity Importance	-.20	.249	-.80	.424	[-.69; .20]
Parent Identity Importance × Conflict Intensity	-.23	.335	-.69	.490	[-.89; .43]
Shame × Parent Identity Importance × Conflict Intensity	.17	.254	.67	.504	[-.33; .67]
Stress	$R^2 = .23$, $F = 13.74$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .02$, $p = .891$				
Constant	7.34	.226	32.43	< .001	[6.90; 7.79]
Conflict Intensity	1.48	.290	5.11	< .001	[.91; 2.05]
Shame	1.47	.217	6.80	< .001	[1.05; 1.90]

Parent Identity Importance	-.10	.278	-.35	.730	[-.64; .45]
Shame × Conflict Intensity	-.21	.266	-.78	.434	[-.73; .32]
Shame × Parent Identity Importance	-.37	.257	-1.43	.152	[-.88; .14]
Parent Identity Importance × Conflict Intensity	-.04	.347	-.12	.902	[-.73; .64]
Shame × Parent Identity Importance × Conflict Intensity	.04	.263	.14	.891	[-.48; .55]

Note. Overall model $df = 7, 327$. Three-way interaction $df = 1, 327$. ΔR^2 represents increase in R^2 as a result of the three-way interaction.

Hypothesis 6. Correlation Between Perceived Stigma and Perceived Reparability

Aligned with the hypothesis, both perceived work stigma and perceived mother stigma had significant negative relationships with perceived reparability (see Table 4.2).

Hypothesis 7. Moderating Effect of Perceived Stigma on Relationship Between Shame and Responses

Tables 4.10 and 4.11 provide a summary of the regression models. There was a positive relationship between shame and retreat, but only when perceived work stigma was high, $B = .22$, $SE = .064$, $p = .001$, $CI_{95\%}$ [.09; .35], rather than low, $B = .03$, $SE = .074$, $p = .660$, $CI_{95\%}$ [-.11; .18], see Figure 4.8. There was also a negative relationship between shame and reconciliation, but only when perceived mother stigma was high, $B = -.21$, $SE = .054$, $p < .001$, $CI_{95\%}$ [-.31; -.10], rather than low, $B = .08$, $SE = .070$, $p = .274$, $CI_{95\%}$ [-.06; .21], see Figure 4.9. The significant conditional effects are aligned with the hypothesis, in that when perceived stigma was high, shame was positively associated with an avoidance-type responses (retreat) and negatively associated with an approach-type responses (reconciliation).

While the identity conflict management strategies responded consistently with the hypotheses, the motivation measures did not. The positive relationship between shame and avoidance motivation was larger when perceived mother stigma was low, $B = .82$, $SE = .118$,

$p < .001$; $CI_{95\%}$ [.59; 1.05], compared to high, $B = .53$, $SE = .091$, $p < .001$, $CI_{95\%}$ [.35; .71], see Figure 4.10. While the negative relationship between shame and bipolar approach was only significant when perceived mother stigma was low, $B = -.44$, $SE = .106$, $p < .001$, $CI_{95\%}$ [-.65; -.23], as opposed to high, $B = -.10$, $SE = .082$, $p = .246$, $CI_{95\%}$ [-.26; .07], see Figure 4.11.

Taken together, the results of this hypothesis may suggest that perceived stigma differentially influences how a person responds immediately after a conflict compared to how they strategise managing their conflicts in the long term. That is, perceiving lower levels of stigma may be associated with higher avoidance motivation and lower approach intentions in response to shame, as an immediate reaction. In contrast, perceiving greater levels of stigma may be associated with a higher use of retreat strategies and lower attempt reconciling the identities in response to shame, as long-term strategies.

Table 4.10

Results of Hierarchical Regression Analyses Predicting Responses with Shame, Perceived Work Stigma and Their Two-Way Interaction

	B	SE_B	t	p	$CI_{95\%}$
Avoidance Motivation	$R^2 = .20$, $F = 27.66$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .28$, $p = .596$				
Constant	3.09	.080	38.48	< .001	[2.93; 3.25]
Shame	.08	.048	1.76	.079	[-.01; .18]
Work Stigma	.63	.076	8.37	< .001	[.48; .78]
Shame × Work Stigma	-.02	.042	-.53	.596	[-.10; .06]
Repair Motivation	$R^2 = .10$, $F = 12.58$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .64$, $p = .424$				
Constant	4.70	.083	56.18	< .001	[4.54; 4.87]
Shame	.06	.050	1.11	.270	[-.04; .15]
Work Stigma	.45	.079	5.71	< .001	[.30; .61]

Shame × Work Stigma	-.04	.044	-.80	.424	[-.12; .05]
Self-Improvement Motivation	$R^2 = .22$, $F = 30.83$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .54$, $p = .462$				
Constant	3.63	.076	48.03	< .001	[3.48; 3.78]
Shame	.04	.045	.81	.416	[-.05; .13]
Work Stigma	.64	.071	8.96	< .001	[.50; .78]
Shame × Work Stigma	.03	.040	.73	.462	[-.05; .11]
Bipolar Approach	$R^2 = .03$, $F = 3.65$, $p = .013$, $\Delta R^2 = .00$, $\Delta F = .96$, $p = .328$				
Constant	3.83	.073	52.63	< .001	[3.69; 3.98]
Shame	-.01	.043	-.16	.877	[-.09; .08]
Work Stigma	-.22	.068	-3.18	.002	[-.35; -.08]
Shame × Work Stigma	.04	.038	.98	.328	[-.04; .11]
Retreat	$R^2 = .06$, $F = 7.12$, $p < .001$, $\Delta R^2 = .01$, $\Delta F = 7.12$, $p = .047$				
Constant	4.76	.053	89.29	< .001	[4.65; 4.86]
Shame	.07	.032	2.23	.027	[.01; .13]
Work Stigma	.13	.050	2.52	.012	[.03; .23]
Shame × Work Stigma	.06	.028	1.99	.047	[.00; .11]
Reconciliation	$R^2 = .04$, $F = 5.01$, $p = .002$, $\Delta R^2 = .00$, $\Delta F = 1.49$, $p = .224$				
Constant	5.39	.048	113.34	< .001	[5.30; 5.48]
Shame	-.06	.028	-2.27	.024	[-.12; -.01]
Work Stigma	-.09	.045	-2.04	.042	[-.18; -.00]
Shame × Work Stigma	-.03	.025	-1.22	.224	[-.08; .02]
Realignment	$R^2 = .04$, $F = 4.52$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = 1.17$, $p = .279$				
Constant	5.13	.065	78.46	< .001	[5.00; 5.26]
Shame	.13	.039	3.37	.001	[.05; .21]
Work Stigma	-.08	.062	-1.35	.178	[-.20; .04]
Shame × Work Stigma	.04	.034	1.08	.279	[-.03; .10]
Reflection	$R^2 = .00$, $F = .44$, $p = .727$, $\Delta R^2 = .00$, $\Delta F = .01$, $p = .944$				

Constant	4.34	.075	57.81	< .001	[4.20; 4.49]
Shame	.04	.045	.93	.355	[-.05; .13]
Work Stigma	.03	.071	.43	.669	[-.11; .17]
Shame × Work Stigma	.00	.039	.07	.944	[-.07; .08]

Note. Overall model $df = 3, 331$. Two-way interaction $df = 1, 331$.

Table 4.11

Results of Hierarchical Regression Analyses Predicting Responses with Shame, Perceived Mother Stigma and Their Two-Way Interaction

	B	SE_B	*t*	*p*	$CI_{95\%}$
Avoidance Motivation	$R^2 = .21$, $F = 28.56$, $p < .001$, $\Delta R^2 = .01$, $\Delta F = 4.05$, $p = .045$				
Constant	3.12	.080	38.78	< .001	[2.96; 3.27]
Shame	.06	.050	1.23	.220	[-.04; .16]
Mother Stigma	.67	.078	8.70	< .001	[.52; .83]
Shame × Mother Stigma	-.09	.045	-2.01	.045	[-.18; -.00]
Repair Motivation	$R^2 = .10$, $F = 12.37$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = 1.10$, $p = .294$				
Constant	4.71	.084	55.98	< .001	[4.54; 4.88]
Shame	-.00	.052	-.08	.937	[-.11; .10]
Mother Stigma	.48	.081	5.94	< .001	[.32; .64]
Shame × Mother Stigma	-.05	.047	-1.05	.294	[-.14; .04]
Self-Improvement Motivation	$R^2 = .22$, $F = 31.94$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .72$, $p = .398$				
Constant	3.66	.076	48.36	< .001	[3.51; 3.81]
Shame	.09	.047	1.82	.070	[-.01; .18]
Mother Stigma	.65	.073	8.86	< .001	[.50; .79]
Shame × Mother Stigma	-.04	.042	-.85	.398	[-.12; .05]
Bipolar Approach	$R^2 = .05$, $F = 5.90$, $p = .001$, $\Delta R^2 = .02$, $\Delta F = 6.97$, $p = .009$				
Constant	3.81	.072	52.58	< .001	[3.66; 3.95]
Shame	.03	.045	.68	.497	[-.06; .12]

Mother Stigma	-.27	.070	-3.83	< .001	[-.40; -.13]
Shame × Mother Stigma	.11	.040	2.64	.009	[.03; .18]
Retreat	$R^2 = .03$, $F = 3.94$, $p = .009$, $\Delta R^2 = .00$, $\Delta F = .14$, $p = .709$				
Constant	4.77	.054	87.85	< .001	[4.67; 4.88]
Shame	.02	.034	.68	.495	[-.04; .09]
Mother Stigma	.15	.052	2.90	.004	[.05; .26]
Shame × Mother Stigma	.01	.030	.37	.708	[-.05; .07]
Reconciliation	$R^2 = .06$, $F = 7.46$, $p < .001$, $\Delta R^2 = .03$, $\Delta F = 11.08$, $p = .001$				
Constant	5.41	.047	114.56	< .001	[5.32; 5.51]
Shame	-.05	.029	-1.73	.084	[-.11; .01]
Mother Stigma	-.06	.046	-1.42	.158	[-.15; .03]
Shame × Mother Stigma	-.09	.026	-3.33	.001	[-.14; -.04]

Note. Overall model *df* = 3, 331. Two-way interaction *df* = 1, 331.

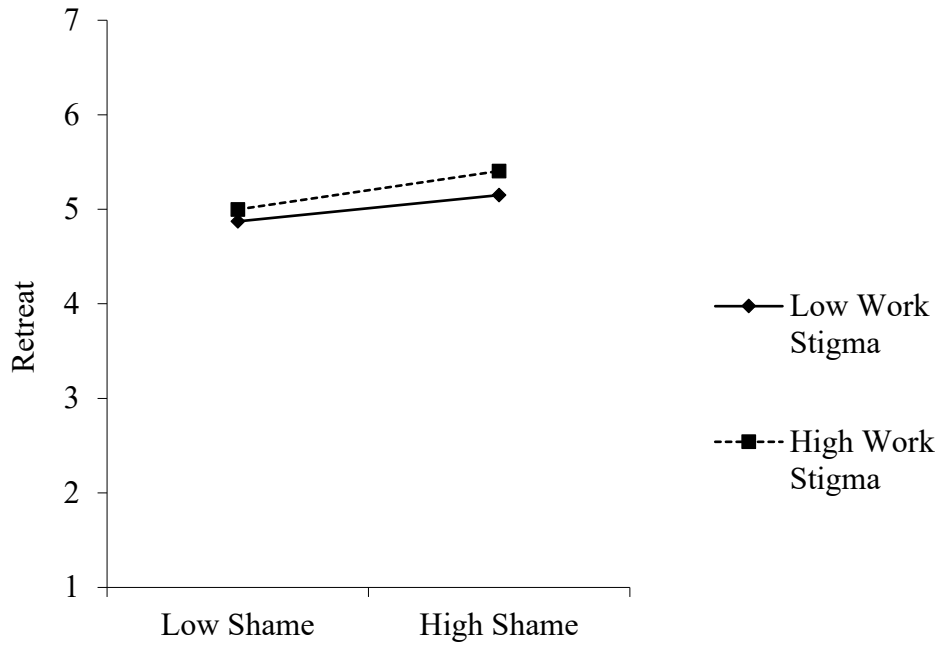

Figure 4.8. Interaction between Shame and Work Stigma on Retreat.

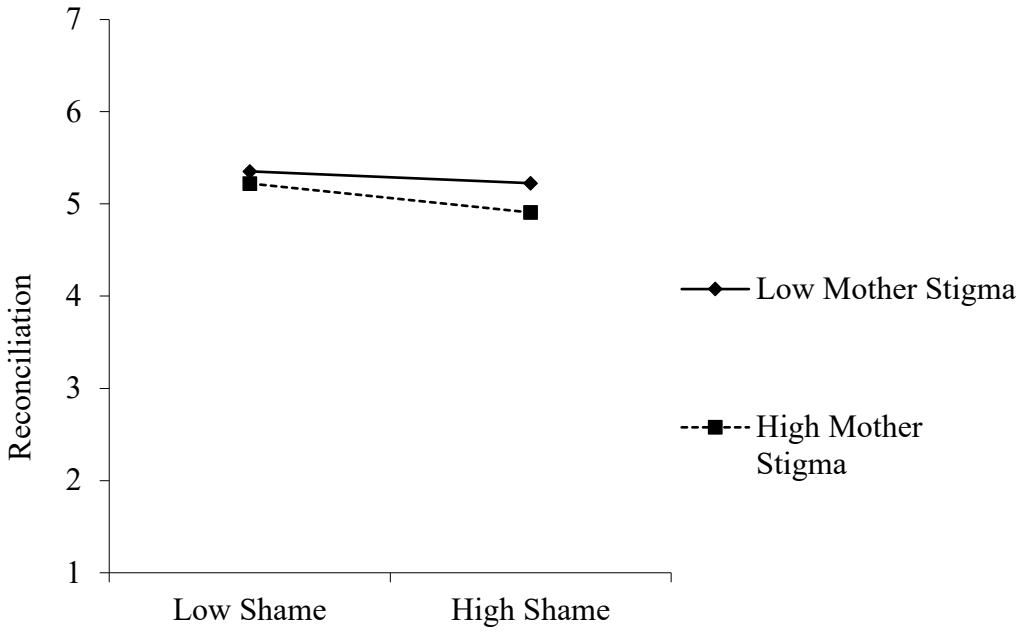

Figure 4.9. Interaction between Shame and Mother Stigma on Reconciliation.

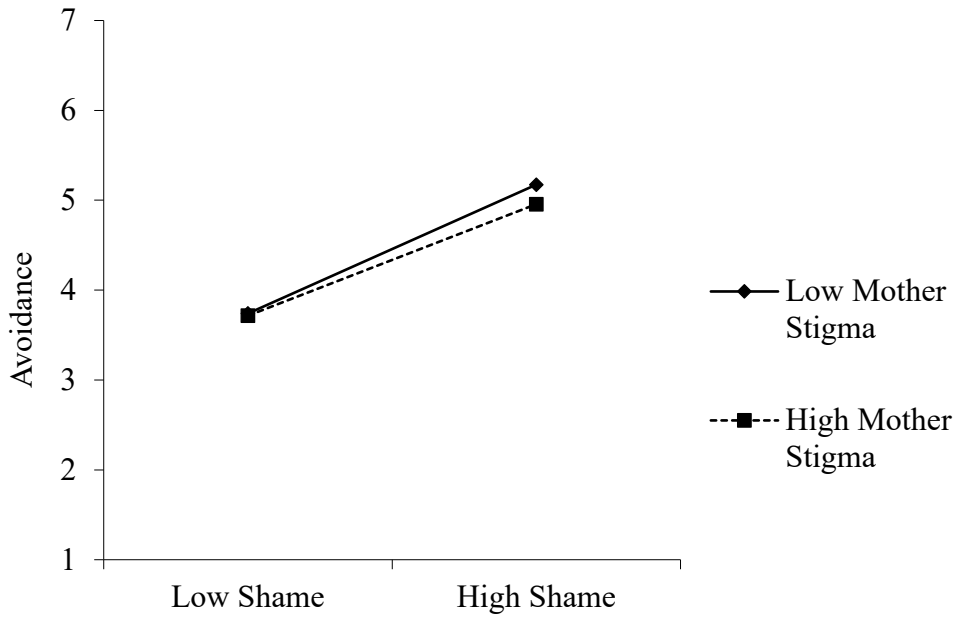

Figure 4.10. Interaction between Shame and Work Stigma on Avoidance.

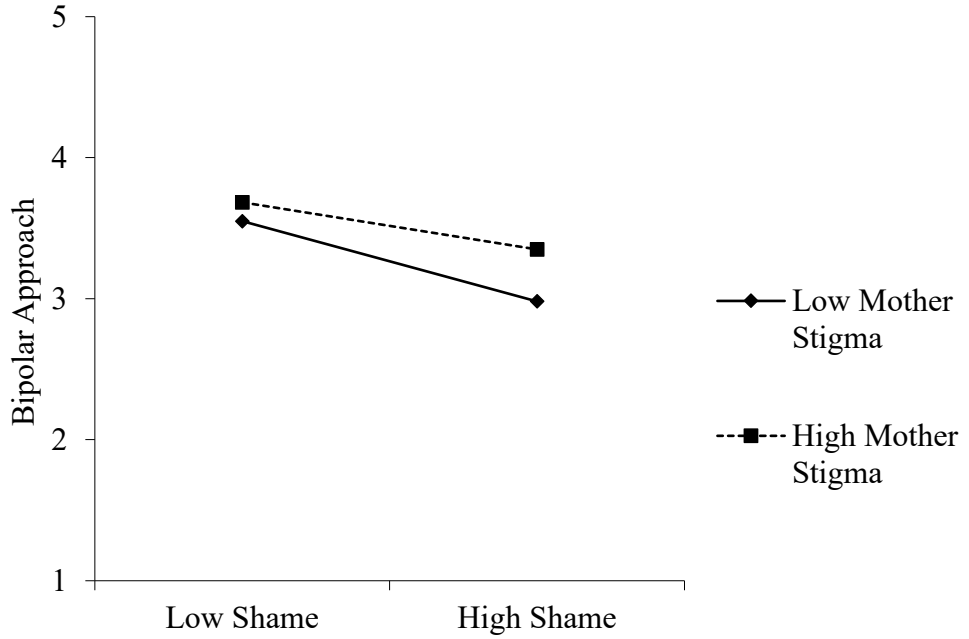

Figure 4.11. Interaction between Shame and Mother Stigma on Bipolar Approach.

Hypothesis 8. Moderated Effect of Perceived Stigma on Relationship Between Shame and Psychological Distress

A summary of the regression models is provided in Tables 4.12 and 4.13. The only significant interaction was between shame and perceived work stigma on anxiety, such that the positive relationship between shame and anxiety was larger when perceived work stigma was high, $B = 1.91$, $SE = .261$, $p < .001$, $CI_{95\%}$ [1.39; 2.42], compared to low, $B = .77$, $SE = .30$, $p = .011$, $CI_{95\%}$ [.18; 1.36], see Figure 4.12. This is somewhat aligned with the hypothesis given shame is more likely to be associated with higher anxiety when perceived stigma is high compared to low, although contrary to the hypothesis this was only the case for perceived work stigma as perceived mother stigma did not interact with shame to predict psychological distress (Table 4.13).

Table 4.12

Results of Regression Analyses Predicting Psychological Distress with Shame, Perceived

Work Stigma and Their Two-Way Interaction

	B	SE_B	*t*	*p*	$CI_{95\%}$
Depression	$R^2 = .18, F = 24.74, p < .001, \Delta R^2 = .01, \Delta F = 2.31, p = .130$				
Constant	3.49	.219	15.93	< .001	[3/06; 3.92]
Shame	.35	.130	2.71	.007	[.10; .61]
Work Stigma	1.43	.206	6.93	< .001	[1.02; 1.84]
Shame × Work Stigma	.17	.115	1.52	.130	[-.05; .40]
Anxiety	$R^2 = .17, F = 23.18, p < .001, \Delta R^2 = .02, \Delta F = 8.72, p = .003$				
Constant	3.21	.217	14.80	< .001	[2.78; 3.64]
Shame	.20	.129	1.58	.114	[-.05; .46]
Work Stigma	1.34	.205	6.53	< .001	[.93; 1.74]
Shame × Work Stigma	.34	.114	2.95	.003	[.11; .56]
Stress	$R^2 = .20, F = 27.52, p < .001, \Delta R^2 = .01, \Delta F = 3.57, p = .060$				
Constant	7.25	.229	31.69	< .001	[6.80; 7.71]
Shame	.51	.136	3.72	< .001	[.24; .77]
Work Stigma	1.44	.216	6.66	< .001	[1.01; 1.86]
Shame × Work Stigma	.23	.120	1.89	.060	[-.01; .46]

Note. Overall model *df* = 3, 331. Two-way interaction *df* = 1, 331.

Table 4.13

Results of Hierarchical Regression Analyses Predicting Psychological Distress with Shame, Perceived Mother Stigma and Their Two-Way Interaction

	B	SE_B	*t*	*p*	$CI_{95\%}$
Depression	$R^2 = .16, F = 21.41, p < .001, \Delta R^2 = .00, \Delta F = .11, p = .736$				
Constant	3.57	.223	16.04	< .001	[3.13; 4.01]
Shame	.20	.139	1.43	.154	[-.07; .47]
Mother Stigma	1.55	.215	7.21	< .001	[1.12; 1.97]

Shame × Mother Stigma	-.04	.124	-.34	.736	[-.28; .20]
Anxiety	$R^2 = .15$, $F = 19.73$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .99$, $p = .320$				
Constant	3.38	.221	15.34	< .001	[2.95; 3.82]
Shame	.22	.137	1.57	.118	[-.05; .49]
Mother Stigma	1.48	.213	6.96	< .001	[1.06; 1.90]
Shame × Mother Stigma	-.12	.123	-1.00	.320	[-.36; .12]
Stress	$R^2 = .18$, $F = 23.45$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .89$, $p = .346$				
Constant	7.39	.233	31.66	< .001	[6.93; 7.85]
Shame	.41	.145	2.80	.005	[.12; .69]
Mother Stigma	1.58	.225	7.04	< .001	[1.14; 2.03]
Shame × Mother Stigma	-.12	.130	-.94	.346	[-.38; .13]

Note. Overall model *df* = 3, 331. Two-way interaction *df* = 1, 331.

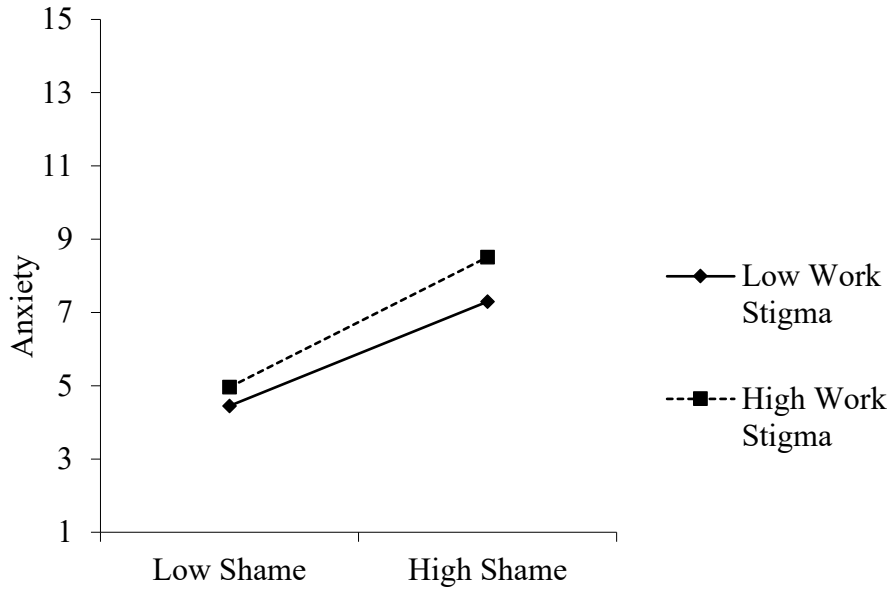

Figure 4.12. Interaction between Shame and Work Stigma on Anxiety.

Hypothesis 9. Moderating Effect of Reparability on the Relationship Between Shame and Responses as well as Identity Conflict Management Strategies

A summary of the regression models is provided in Table 4.14. Contrary to the hypothesis, there was not a significant interaction between shame and reparability on any

responses. This is with one exception. There was a significant interaction between shame and perceived reparability on self-improvement motivation, the positive relationship between shame and self-improvement was larger when perceived reparability was high, B = .61, SE = .114, p = < .001, $CI_{95\%}$ [.39; .84], compared to low, B = .37, SE = .084, p < .001, $CI_{95\%}$ [.20; .53], see Figure 4.13. The latter conditional effect was predicted to be negative, however, the increasing in strength of the positive relationship as perceived reparability increases is aligned with the hypothesis.

Table 4.14

Results of Hierarchical Regression Analyses Predicting Responses with Shame, Perceived Reparability and Their Two-Way Interaction

	B	SE_B	t	p	$CI_{95\%}$
Avoidance Motivation	R^2 = .32, F = 51.31, p < .001, ΔR^2 = .00, ΔF = .56, p = .457				
Constant	3.11	.080	38.85	< .001	[2.95; 3.26]
Shame	.37	.082	4.55	< .001	[-.69; -.40]
Reparability	-.54	.070	-7.75	< .001	[-.68; -.40]
Shame × Reparability	.04	.051	.75	.457	[-.06; .14]
Repair Motivation	R^2 = .11, F = 13.94, p < .001, ΔR^2 = .01, ΔF = 3.59, p = .059				
Constant	4.76	.090	53.06	< .001	[4.58; 4.94]
Shame	.45	.092	4.94	< .001	[.27; .64]
Reparability	-.13	.079	-1.65	.099	[-.28; .02]
Shame × Reparability	.11	.057	1.89	.059	[-.00; .22]
Self-Improvement Motivation	R^2 = .30, F = 46.41, p < .001, ΔR^2 = .01, ΔF = 4.18, p = .042				
Constant	3.71	.077	47.96	< .001	[3.56; 3.86]
Shame	.49	.079	6.19	< .001	[.34; .65]
Reparability	-.41	.068	-6.09	< .001	[-.54; -.28]
Shame × Reparability	.10	.049	2.04	.042	[.00; .20]

Bipolar Approach	$R^2 = .06$, $F = 6.45$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .07$, $p = .796$				
Constant	3.84	.078	49.68	< .001	[3.70; 4.01]
Shame	-.09	.079	-1.12	.293	[-.25; .07]
Reparability	.20	.068	2.91	.004	[.06; .33]
Shame × Reparability	.01	.049	.26	.796	[-.08; .11]
Retreat	$R^2 = .03$, $F = 4.19$, $p = .006$, $\Delta R^2 = .00$, $\Delta F = .06$, $p = .807$				
Constant	4.77	.058	82.06	< .001	[4.66; 4.89]
Shame	.19	.060	3.23	.001	[.08; .31]
Reparability	.06	.051	1.17	.243	[-.04; .16]
Shame × Reparability	-.01	.037	-.24	.807	[-.08; .06]
Reconciliation	$R^2 = .27$, $F = .07$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = 1.16$, $p = .283$				
Constant	5.40	.050	107.07	< .001	[5.30; 5.50]
Shame	-.00	.052	-.07	.945	[-.11; .10]
Reparability	.17	.044	3.85	< .001	[.08; .26]
Shame × Reparability	.03	.032	1.08	.283	[-.03; .10]

Note. Overall model *df* = 3, 331. Two-way interaction *df* = 1, 331.

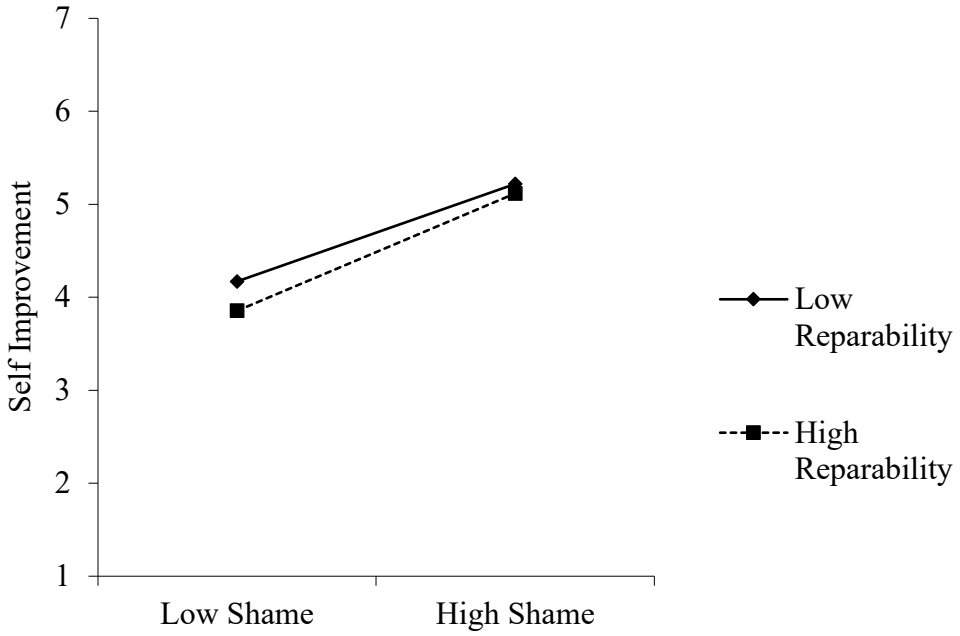

Figure 4.13. Interaction between Shame and Perceived Reparability on Self Improvement Motivation.

Hypothesis 10. Moderating Effect of Reparability on the Relationship Between Shame and Psychological Distress

A summary of the regression models is provided in Table 4.15. Contrary to the hypothesis, there was no evidence that perceived reparability moderated the relationship between shame and psychological distress.

Table 4.15

Results of Hierarchical Regression Analyses Predicting Psychological Distress with Shame, Perceived Reparability and Their Two-Way Interaction

	B	SE_B	*t*	*p*	$CI_{95\%}$
Depression	$R^2 = .20$, $F = 26.88$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .84$, $p = .359$				
Constant	3.47	.234	14.80	< .001	[3.01; 3.93]
Shame	1.09	.240	4.52	< .001	[.61; 1.56]
Reparability	-.75	.205	-3.66	< .001	[-1.15; -.35]
Shame × Reparability	-.14	.150	-.92	.359	[-.43; .16]
Anxiety	$R^2 = .19$, $F = 25.66$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = 1.01$, $p = .315$				
Constant	3.24	.231	13.99	< .001	[2.78; 3.70]
Shame	.96	.238	4.02	< .001	[.49; 1.42]
Reparability	-.80	.203	-3.95	< .001	[-1.20; -.40]
Shame × Reparability	-.15	.148	-1.01	.315	[-.44; .14]
Stress	$R^2 = .17$, $F = 23.26$, $p < .001$, $\Delta R^2 = .00$, $\Delta F = .64$, $p = .423$				
Constant	7.42	.251	29.62	< .001	[6.93; 7.92]
Shame	1.40	.257	5.44	< .001	[.89; 1.90]
Reparability	-.62	.219	-2.84	.005	[-1.05; -.19]
Shame × Reparability	.13	.160	.80	.423	[-.19; .44]

Discussion

The current study investigated whether the relationships between shame and responses to shame are moderated by perceived reparability or its proxies (intensity of identity conflict × importance of conflicting identities *or* perceived stigma) and whether these factors also moderated the relationship between shame and psychological distress. This study focused on a demographic that experiences identity conflict in the context of stigma: working

mothers. Consistent with Studies 2.4 and 3.2, shame had a larger positive relationship with self-improvement motivation when perceived reparability was high compared to low. However, the current study found mixed results for the impact of perceived reparability's supposed proxies (i.e., identity conflict × importance of conflicting identities or perceived stigma) on responses to shame. Results were inconsistent, differing depending on the type of identity (i.e., mother versus parent) and source of stigma (i.e., from colleagues or other mothers), as well as whether outcome measures were motivational (e.g., approach and repair motivation) or strategic (e.g., retreat and reconciliation management strategies). As for the influence of perceived reparability and its proxies on the relationship between shame and psychological distress, these effects were mostly null, with an exception: shame had a larger positive relationship with anxiety when identity conflict intensity or work stigma were high. Consistent with Chapter 3, the results of the current study suggest that repair and avoidance motivations may act more similarly than anticipated. As was the case in Chapter 3, avoidance and repair motivation were positively correlated, and shame's curvilinear relationship with repair was in the same direction as its curvilinear relationship with avoidance: shame's positive correlation with both avoidance and repair motivations became smaller as shame increased.

Importantly, aligned with Chapter 3, the current study provided no evidence of an interaction between identity conflict intensity and identity importance to predict the relationship between shame and responses or psychological distress. This suggests that stigmatisation does not explain the differences in results within this thesis in comparison to past research that found evidence of conflict intensity and identity importance interacting to predict well-being (Settles, 2004; Noor, 2004). The reason that the current study did not find an interaction between conflict intensity and identity importance with shame to predict responses to shame or psychological distress may be that, while conflict intensity and identity

importance interact to predict these outcomes in previous research (Settles, 2004; Noor, 2004), they do not influence shame's relationship with these outcomes. Perhaps because identity conflict and identity importance did not interact to predict perceived reparability as predicted, suggesting that the finding in Study 3.2 that identity importance and conflict intensity interacted to predict perceived reparability may be unreliable.

When considering the main effects of conflict intensity and identity importance, these variables' influence on the relationship between shame and outcomes did not seem to be influenced by their relatedness to perceived reparability. Although conflict intensity was negatively associated with perceived reparability, conflict intensity did not influence responses to shame. Conversely, identity importance did not relate to perceived reparability, but there was some evidence of it influencing responses to shame: avoidance-type strategies were more likely when parent identity importance was low (i.e., retreat) and approach-type strategies were less likely when parent identity importance was high (i.e., reconciliation), suggesting that overall, as parent identity importance increased approach-oriented responses to shame decreased. In the case of work identity importance, as work identity importance increased approach-type responses (i.e., repair motivation) decreased (although the relationship remained positive). However, it would be premature to place confidence in this trend given it did not apply to all approach or avoidance-oriented outcomes, nor both mother and work stigma.

Perceiving stigma from others was negatively associated with perceived reparability, as expected. However, the influence of perceived stigma was inconsistent. When mother stigma was high there was a negative relationship between shame and reconciliation whereas when mother stigma was low there was a negative relationship between shame and bipolar approach. When work stigma was high there was a positive relationship between shame and retreat whereas when work stigma was low there was a positive relationship between shame

and avoidance motivation. At face value, these effects may suggest that — at both low and high levels of stigma — shame generally has negative relationships with approach-type strategies and positive relationships with avoidance-type strategies. The differing influence of the level of stigma on motivations and identity conflict management strategies may be because these outcomes are temporally distinct. That is, motivation measures related to how a person responded immediately following the conflict, whereas strategy measures focused on broader — perhaps more long-term — tactics to adapt to identity conflict. In turn, the results may reflect that shame is associated with more avoidance and less approach motivations when perceived stigma is low in the short term, and in the long-term those who perceive high stigma are less likely to attempt reacceptance into their groups through socially creative ways (e.g., trying to balance both identities) and more likely to retreat (e.g., actively avoiding situations that cause conflict between the identities). This later response is supported by Reintegrate Shaming Theory that suggests stigmatisation reduces processing of shame and subsequent repair attempts (Ahmed et al., 2001). However, as was the case with the influence of identity importance, the inconsistencies of these effects across all approach and avoidance-type responses cautions against strong conclusions.

Overall, the current study suggests that the inconsistencies between Chapter 3 and published research cannot be attributed to the presence of stigma, and instead suggest that identity conflict intensity and identity importance do not interact to influence the relationship between shame and responses or psychological distress. The study also suggested that perceived stigma influenced the perceived reparability of shame, although its effect on the relationship between shame and responses differ possibly depending on the timing of the response. Given the possible importance of time, coupled with the lack of ability to draw causal conclusions from the current correlational research, the most fruitful avenue for the development of identity conflict research may lie in applying longitudinal methodologies,

such as experience sampling. Experience sampling would allow for the naturalistic study of identity conflicts, how they evolve over time, and when and how people's responses to them and their effects on psychological distress may differ. In doing so it would be important not only to study people who experience identity conflict, but also those who manage multiple roles without experiencing such conflict (or at least the problematic consequences of the conflict) — what is it that helps them manage these conflicts? It could be that the answer lies somewhere outside of the realms of simply approach versus avoidance, perhaps in a strategy of reflection and acceptance.

CHAPTER 5 – General Discussion

How is it that shame can be associated with problematic outcomes, yet also play a role facilitating effective social functioning? What makes shame functional or problematic? In this thesis I have examined what factors may shape avoidance versus repair responses, and whether these factors also influence the relationship between shame and psychological distress. Based on previous research I argued (Chapter 1) that avoidance in response to shame is more likely to lead to the psychopathologies shame has been associated with, and when shame motivates approach and repair tendencies it is fulfilling its functional role and thereby facilitates well-being. A meta-analysis had suggested that the availability of repair options determine whether shame leads to an approach and repair response (Leach & Cidam, 2015). Building on this previous literature, this thesis was the first to empirically investigate which factors may contribute to the perceived reparability of shame in daily-life: the malleability of the self (Chapter 2), the tangle of competing and conflicting expectations we face based on our multiple social identities (Chapter 3 and 4), and the impact of stigma from others (Chapter 4). This thesis was also the first to investigate the influence of perceived reparability on shame's relationship with psychological distress.

In this General Discussion I will address the possible theoretical and practical implications of the findings of the current thesis, while highlighting possible avenues for further research. Firstly, I will discuss the findings in relation to the self-rated perceived reparability. This thesis has demonstrated more often than not that self-improvement is more likely if shame is perceived as reparable, however, perceived reparability did not influence the relationship between shame and psychological distress. This was the first series of studies to show that it is the *perceived* reparability of shame, not just the *availability* of a repair option, that can influence responses. Secondly, I will discuss the findings in relation to the malleability of the self. Based on the findings of this thesis, self-theories did not influence

perceived reparability, nor did they influence the relationship between shame and responses or psychological distress. This has implications for the proposed mechanism through which self-theories may influence responses to failure; the current results suggest it does not seem to be through improving emotional coping. Thirdly, I will discuss the findings related to the influence of the social environment (i.e., social identity conflict and perceived stigma) on responses to shame and psychological distress. Although these results highlighted the need for longitudinal research, the findings of the current thesis suggest that our social environments should be considered when trying to understand how shame is responded to and subsequent psychological health. Finally, the broader challenges associated with the current research, and coping research more generally, will be addressed: relying on self-report measures of shame and the inconsistencies amongst measures of emotion, the importance investigating temporal relationships, the consideration of non-linear relationships, and the possibility of mixed emotional and motivational states.

Self-Improvement Motivation Following Shame More Likely if Reparable

Based on Leach and Cidam's (2015) meta-analysis, as well as previous empirical research, it was expected that when shame is perceived as more reparable it would be more likely to motivate reparation responses. Aligned with this prediction, I found that shame was often associated with a stronger motivation to change the self when the perceived reparability of self and social-image was high. When perceived reparability was low, this relationship was either smaller or non-significant. This finding aligns with the meta-analytic result that the availability of a repair option makes it more likely that a person will be motivated to or attempt to improve themselves following shame (Leach & Cidam, 2015).

This research contributed to our understanding of shame by demonstrating that a person's *perception* of reparability of their self and social image — not only the *objective availability* of a repair option (Leach & Cidam, 2015) — when they experience shame has a

moderating effect on self-improvement motivations. Leach and Cidam (2015), for example, found in their meta-analysis a significant positive relationship between shame and self-improvement in studies/conditions where reparability was high, while not enough relevant studies were available to investigate the impact when reparability was low. Reparability was coded as the availability of a repair option. The present research tested whether this finding extended to the individuals' perception of reparability. Indeed, there may be multiple opportunities to repair shame in daily life, but it is a person's perception of the likely success of such options which may be more important in determining responses in comparison to the availability of those options.

The finding that the perception of reparability in daily life moderates the relationship between shame and self-improvement motivation following both social transgressions and performance failures suggests that this could be a useful avenue for developing effective shame management strategies. Perceptions are malleable and can be altered depending on what aspects of the situation are attended to and how they are interpreted. Indeed, the central tenet of Cognitive Behaviour Therapy is challenging unhelpful beliefs based on available or attainable evidence (Beck, 2011). For example, a person may experience shame and view their self and social image as irreparable based on attending to others who have since avoided them, interpreting this as purposeful shunning. A clinician may seek to challenge this perceived irreparability by broadening the client's attention to those who have maintained contact and explore whether a lack of contact necessarily means reparation is not possible. By focusing on evidence that may increase perceived reparability (while being mindful not to decrease responsibility taking if the client's shame seems proportionate to the wrongdoing) this may assist with the client's efforts to self-improve. However, to understand the utility of this knowledge to developing shame management strategies, further questions must be answered. For example, does this perceived reparability also translate into lower

psychological distress?

Perceived Reparability did not Influence Shame's Relationship with Psychological Distress

I argued that shame's associations with poor psychological health were found primarily when shame was measured as a motivation or tendency to withdraw, and that this withdrawal response would be more likely if shame is perceived as irreparable (Chapter 1). It followed that shame should be associated with higher psychological distress when perceived reparability was low and associated with lower psychological distress when perceived reparability was high. Theoretically, high reparability should allow for shame to serve its function of motivating social bond and image restoration, whereas low reparability would block this pathway. Contrary to predictions, there was no evidence that the perceived reparability of the self and social image following a social transgression or performance failure influenced the relationship between shame and psychological distress.

This null-finding is particularly important in the context of the growing amount of shame research testing the influence of reparability on responses to shame. The lack of influence of perceived reparability on the relationship between shame and psychological distress highlights that we cannot assume that if we understand what influences the responses to shame, we will also understand what influences shame's associations with psychological well-being outcomes. To answer the earlier question of "does this perceived reparability also translate into lower psychological distress?" the answer — based on the present series of studies — is "no". However, there are limitations to these studies that restrict clear conclusions. Firstly, the correlational nature of the studies in which psychological distress was investigated hinders the ability to make causal conclusions. There could be bidirectional relationships between shame, perceived reparability and psychological distress. Secondly, the measures of psychological distress were broad and could have been impacted by other events

or enduring factors in a person's life. The shame-eliciting events in the present studies, and their impact on psychological distress, may have been washed out by other determinants of psychological well-being. Thirdly, the current study measured motivations to change the self, not attempts to change the self. It could be that while perceived reparability influenced the relationship between shame and motivation to change the self, this motivation did not translate to adaptive behaviour, and in turn perceived reparability did not moderate the relationship between shame and psychological distress. There is evidence that the behaviour people say they would enact in a given situation does not align with how people actually act (for review, see Doliński, 2018). It is also possible that motivation to change the self may not be immediately beneficial for psychological well-being. For example, perhaps a motivation to change the self, while it should reflect some level of empowerment, could also be a stressful endeavour. Change is not necessarily easy; it can be exhausting. So, perhaps any psychological benefits would only occur with more time. Hence, although the current thesis suggests that perceived reparability of self and social-image do not influence the relationship between shame and psychological distress, further research that is able to isolate causal mechanisms and measure behaviour (e.g., experience sampling) is necessary in order to draw strong conclusions.

If this future research were to echo the current findings that perceived reparability does not influence the relationship between shame and psychological well-being, it suggests that if one was to develop strategies to prevent shame from becoming associated with poor psychological outcomes, the answer may not lie in increasing the perceived reparability of shame, but instead the behavioural pursuit and success of repair options. It may be that high perceived reparability does not influence the relationship between shame and psychological distress because while people perceive available repair options, they may not act on them. The availability, perception and pursuit of repair options are seemingly distinct constructs,

each of which may have varying influence on shame's functionality. Although the influence of the availability (Leach & Cidam, 2015) and perception (current thesis) of reparability have been studied, it may be the behavioural pursuit of repair options that is most influential on psychological well-being. After all, if shame's purpose is to motivate a person to repair their social belongingness, a person perceiving that they *could* do so is not as important as them enacting this repair option and perhaps receiving feedback from their social group that these efforts were noticed and successful. Therefore, further research may also observe participants behavioural attempts at repair and the subsequent responses of others.

Another possible explanation for the lack of influence of perceived reparability on shame's association with psychological distress lies within the conceivably complex links between responses to shame and psychological distress. I suggested that *persistent* avoidance responses following shame would be problematic for well-being, while repair-oriented responses would be beneficial for well-being (Chapter 1). The empirical studies within the thesis, however, focused on people's recalled or imagined responses to shame at a given point in time. Avoidance, repair and self-change responses could all be conceived as either problematic or beneficial for well-being, depending on their situational appropriateness. Avoidance, for example, may be beneficial to the extent that a person is following the wishes of the wronged-other or is taking time to engage in necessary self-care, while it could be problematic if it comes at the cost of neglecting to repair belongingness and social bonds. Similarly, attempting repair may be beneficial if it is done so in a tactful and sensitive manner, while it may be problematic if the repair attempts are not responsive to the other person's needs. This difference in effectiveness depending on the circumstances is known as the *strategy-situation-fit hypothesis*: the effectiveness of a strategy is dependent on whether it is appropriate for the given situation (Lazarus & Folkman, 1987). For example, an experience-sampling study found that participants who used reappraisal strategies (i.e., a

strategy used to change a person's perception of the event) experienced higher well-being when they used these situations with low controllability in comparison to high controllability (Haines et al., 2016). Turner et al. (2002) discussed a qualitative study whereby participants who were "shame-resilient" (i.e., participants who experienced shame after receiving feedback from a test but then received a higher grade in a latter test) used a combination of both avoidance and approach-based strategies, suggesting that neither strategy is inherently problematic. It may not be the strategies we use, but the situational appropriateness of those strategies that influence outcomes. This argument could be further extended to not just situational factors, but broader contextual factors such as cultural influence (e.g., self-construal, structural factors, cultural orientation). Furthermore, these contextual factors may not just influence emotion regulation, but also emotional experience, expression, and perception (see Greenway, Kalokerinos, & Williams, 2018 for a review of these factors).

Taken together, the results of the current thesis suggest that investigating what influences the relationship between shame and responses may not naturally also lead us to what influences the relationship between shame and psychological well-being. Arguably, if by researching responses to shame we hope to understand how this functional emotion can become problematic, the most important question to answer may be what the moderators are for the relationship between shame and psychological distress. Learning from the current studies, this future research may benefit from, 1) employing methodologies that allow for casual conclusions to be drawn, 2) measuring actual behaviour such as whether a person attempts repair following shame, as well as other people's responses to these attempts and 3) consideration the situational appropriateness of strategies used and the broader contextual influences on emotion.

Self-theories do not Moderate Emotion Coping Pathway

People's beliefs about the malleability of their traits were proposed to influence how

reparable people would perceive their self and social-image to be following a failure or transgression, and in turn play a role in shame's relationship with responses and psychological distress (Chapter 2). Contrary to predictions, there was no evidence that self-theories influenced a person's perceived reparability of their self and social-image.

It is seemingly contradictory that a person's sense of the changeability of their traits would not influence how reparable they view their self and social image to be following a failure. This may be because people attributed their failures to situational factors (as is more common when people fail in comparison to succeed; Kelley & Michela, 1980) rather than their personal characteristics. This is supported by relatively low levels of shame being reported by participants throughout the studies (i.e., shame mean below the mid-point of the scale in all studies), which is an emotion that arises when people attribute their failures to self-relevant traits. As such, it may be that self-theories influence the perceived reparability of self and social-image more-so in failures that elicit higher shame.

There was also no evidence that self-theories influence the relationship between shame and responses or psychological distress. This suggests that self-theories do not influence responses to failure through determining how people respond to failure-relevant emotions. Self-theories are often applied to improving learning outcomes, and it has been proposed that this occurs due to incremental theorists responding more adaptively to mistakes in comparison to entity theorists. Given that emotions are often positioned as a key motivator of behaviour, one may suggest that self-theories influence how a person copes with failure-relevant emotions. For example, Dweck (2003) suggested that children who hold entity beliefs are more likely to respond to anxiety and self-doubt by avoiding the challenge at hand and bringing attention to other successes in their lives. However, the current findings suggest that the benefits of incremental beliefs are not achieved through influencing coping with emotional responses to failure, or at least not with shame. So, if not through influencing the

emotion-coping pathway, how do self-theories influence responses and performance?

Understanding how self-theories influence outcomes is particularly important given the recent debate about the reliability of the findings relating to self-theories. Recent research has called into question the robustness of the effect of self-theories on a range of behaviours (Bahník & Vranka, 2017; Li & Bates, 2017; Rienzo, Rolfe, & Wilkinson, 2015; Sisk, Burgoyne, Sun, Butler, & Macnamara, 2018). For example, a meta-analysis found that measures of self-theories and educational self-theory interventions showed mostly weak effects with academic achievement (Sisk et al., 2018). A large (N = 5653) cross-sectional study found that self-theories also did not predict performance on a university admissions test, nor the number of repeated attempts students took at the test (Bahník & Vranka, 2017). These articles call for a better understanding of the potential mediators and moderators between self-theories and performance (Bahník & Vranka, 2017; Sisk et al., 2018). One possibility is that self-theories influence attentional resources (Mangels, Butterfield, Lamb, Good, & Dweck, 2006; Moser, Schroder, Heeter, Moran, & Lee, 2011). Future self-theory research could endeavour to investigate the mechanism through which incremental theories can sometimes result in more desirable outcomes than entity theories. But, while the functions and implications of self-theories need be better understood generally, the present research provides no evidence that self-theories affect how people respond to shame experiences.

The Influence of the Social Environment on Shame Processing

When and why we experience shame is linked to the norms of our social groups (Chapter 3). Shame arises to alert us to when we have acted in a way that is incongruent with our important social groups' norms and values. It was therefore predicted that when social factors reduce the perceived ability to repair these bonds (e.g., due to intense conflicts between important social group norms in Chapter 3 or due to perceived stigma from other

group members in Chapter 4), shame would be more likely to result in avoidance and undesirable psychological outcomes. The results of Chapter 3 suggested that conflict intensity and identity importance do not interact to influence responses to shame and psychological distress. Chapter 4 showed that this lack of interaction, which seemed contrary to previous research (Noor, 2004; Settles, 2004), could not be attributed to perceived stigma, but demonstrated that that the stigma experienced by working mothers can influence subsequent motivations, identity conflict management strategies and anxiety.

Consistent with previous research, Study 4.1 confirmed that the relationship between shame and anxiety is larger when others are perceived to be stigmatising in their responses. Qualitative studies have consistently highlighted the importance of others' responses in shame processing, and the value of social support and empathy (Brown, 2006; Dayal, Weaver, & Domene, 2015). The importance of others responses to shameful situations is highlighted in Braithwaite's Reintegrative Shaming Theory (Ahmed et al., 2001), whereby the response of the violated social group is posited to be particularly important in determining how a person processes and responds to their shame. Reintegrative Shaming Theory suggests stigmatisation from others reduces the ability for those stigmatisers to provide social validation and the ability for reacceptance, hence making identification with the group less attractive and likely (Harris, 2007).

Taken together, future research that investigates the influence of others' responses may be beneficial. This could be achieved through either relying on a person's self-reports of others' responses, or, preferably, through experimental dyads or experience sampling of real-world relationships. For example, Woodyatt and Wenzel (2013) surveyed participants five times over the eleven days following an interpersonal transgression, tracking the influence of participants' perceptions of the responses for others on their self-forgiveness. This showed that while victim hostility and offender pseudo self-forgiveness were unrelated initially, by

the third survey there was a significant positive correlation that continued to increase over time. A similar approach could be applied to shame, the perception of others' responses, and subsequent psychological well-being.

Navigating the Complexities of Coping Research

When measuring emotional responses and subsequent coping there are a number of challenges and complexities: the measurement of emotion, the possibility of non-linear relationships, the intricate temporal links between emotions and outcomes, and the possibility of mixed emotions and motivations. Firstly, the current thesis relied on self-report measures of shame. Shame self-report measures may underrepresent the amount of shame experienced, given people can underreport or be unaware of their shame. Emotion literature has faced challenges maintaining theoretically-driven and consistent measures of distinct momentary emotions (for review, see Weidman et al., 2016). Given it has been shown that shame can motivate a range of behaviours, it seems prudent to avoid measuring shame through avoidance behaviours. As such, adjective lists are perhaps the best method available, but the inconsistencies amongst the words used to describe "shame" are problematic. For example, at times, shame measurements have used other emotions within their adjective lists (e.g., anxiety, guilt, embarrassment; Weidman et al., 2016). A possible solution to this may be — as Weidman et al. (2016) advise — to capture lay knowledge of shame descriptions to allow for shame to be measured as it is experienced by participants. Using this information to develop a psychometrically sound adjective list that is based on theory and free from common confounds (i.e., measurement of avoidance behaviour) may provide an accurate and useful measure that is widely applied.

The second complexity to consider when researching responses to emotions is the relationships between variables of interests are not always linear (e.g., curvilinear relationships have been shown between positive emotions at work and burnout; Basinska &

Gruszcynsaka, 2017). In this thesis I have attempted to go beyond examining linear relationships by examining possible curvilinear relationships between shame and subsequent responses. The current thesis suggests that there is not a reliable curvilinear relationship between shame and responses, however, the average levels of shame reported in the current study were low and in turn it may be that a curvilinear relationship may exist when very high levels of shame are observed. Continuing to consider curvilinear and other non-linear relationships between emotions and outcomes in the context of a range of emotion intensity may help us understand the complexity of people's responses to their emotions and how this impacts their well-being.

Thirdly, the studies of the current thesis that included measures of psychological distress did so within a cross-sectional design, and in turn causation cannot be inferred in relation to shame's relationship with psychological distress. It is conceivable that the perceived reparability of shame may be a result of psychological distress, rather than psychological distress being the result of the perceived reparability of shame. Therefore, experience sampling or other forms of longitudinal studies would be beneficial in order to infer causation. These time-series studies would also provide much needed information about the temporal relationships between variables relevant to coping. When surveying participants and asking them to recall shameful experiences, it is unclear what stage of the coping process they are in. Capturing participants at the point that they transgress and monitoring how their appraisals, emotions, motivations, behaviours and the responses of others evolve and interact with each other over time would provide a rich picture of how various factors that influence coping progress over time.

Finally, constructs which I presumed to be theoretical opposites (e.g., repair and approach responses versus avoidance responses), and in turn mutually exclusive, do not appear to be so. This thesis demonstrates that approach and avoidance responses to shame

can be slightly positively related. This positive correlation may be because shame can evoke simultaneous motivations to repair damage done while also wanting to avoid causing further damage after experiencing shame. Another possibility is that avoidance can be a constructive strategy if the motivation is to take time out, gather resources, and return to the problem with a renewed ability to solve it or less likely to repeat the same mistakes (Tangney et al., 2014). This possibility may be likely given the operationalisation of avoidance within this thesis as a distancing response (e.g., with items such as "I wanted to be completely associated with the event", "I want to distance myself as much as possible from the event"; Lickel et al, 2014). A possible way of examining this is to measure the motivation (e.g., defensiveness) that underlies the response (e.g., Gausel et al., 2015). Another phenomenon that may result in seemingly opposite responses is the experience of more than one emotion at once. Although the co-occurrence of similarly valanced emotions (e.g., joy and self-assurance) is more likely than the co-occurrence of supposedly opposite valanced emotions (e.g., fear and self-assurance), the latter has still been shown to be possible (Watson & Stanton, 2017), and in turn may result in mixed motivational states. Given emotion research often relies on the induction of emotion, and in turn a relatively strong emotional response, it may be that the complexity of mixed emotional experiences that occur in daily life are being excluded from investigation. Examining the occurrence of emotions in daily life and considering the possibility that multiple emotions and motivations can co-occur would develop our understanding of the complexity of these lived experiences and how it is that our emotions can either help or hinder us.

Conclusion

The current thesis sought to provide answers to the question, "when does shame, a functional emotion, become problematic?" The studies within this thesis confirm that shame can motivate both repair and avoidance responses, suggesting that shame is not (only) the

socially dysfunctional emotion as which it is often portrayed, and continues to raise the question of when and why shame would motivate either response. The current research suggests that when a person perceives their social and self-image to be reparable following shame, they will be more motivated to improve themselves compared to if they perceived their image to be less reparable. Neither the belief in the malleability of the self, the level of conflict between identities, nor the stigma experienced from others led to consistent moderating effects between shame and responses, with only the latter negatively correlating with perceived reparability. However, this thesis highlights that knowing the factors that influence shame's relationship with approach and avoidance responses may not naturally provide answers regarding what influences shame's relationship with well-being. In turn, future research should focus on this question if researchers hope to contribute to strategies that allow shame to fulfil its functional role in improving social belongingness. In researching this question further, it may be particularly beneficial to consider the situational appropriateness of a given response, measure the responses of others, consider non-linear relationships and mixed emotional and motivational states, and test the temporal relationships between variables.

References

Ahmed, E., & Braithwaite, V. (2004). "What, Me Ashamed?" Shame management and school bullying. *Journal of Research in Crime and Delinquency, 41*(3), 269-294. doi:10.1177/0022427804266547

Ahmed, E., & Braithwaite, V. (2006). Forgiveness, reconciliation, and shame: Three key variables in reducing school bullying. *Journal of Social Issues, 62*(2), 347-370.

Ahmed, E., Harris, N., Braithwaite, J., & Braithwaite, V. (2001). *Shame Management Through Reintegration*. Cambridge, UK: Cambridge University Press.

Aiken, L. S., & West, S. G. (1991). *Multiple Regression: Testing and interpreting interactions*. New York: Sage.

Allan, S., Gilbert, P., & Goss, K. (1994). An exploration of shame measures-II: psychopathology. *Personality and Individual Differences, 17*(5), 719-722.

Allen, T. D., Herst, D. E. L., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology, 5*(2), 278-308. doi:10.1037//1076-8998.5.2.278

Andrews, B., Brewin, C. R., Rose, S., & Kirk, M. (2000). Predicting PTSD symptoms in victims of violent crime: The role of shame, anger, and childhood abuse. *Journal of Abnormal Psychology, 109*(1), 69-73. doi:10.1037//0021-843x.109.1.69

Andrews, B., Qian, M., & Valentine, J. D. (2002). Predicting depressive symptoms with a new measure of shame: The experience of shame scale. *British Journal of Clinical Psychology, 41*, 29-42.

Aronson, J., Fried, C. B., & Good, C. (2002). Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology, 38*(2), 113-125. doi:10.1006/jesp.2001.1491

Bahník, Š., & Vranka, M. A. (2017). Growth mindset is not associated with scholastic aptitude in a large sample of university applicants. *Personality and Individual Differences, 117*, 139-143. doi:10.1016/j.paid.2017.05.046

Barkow, J. H. (1989). *Darwin, Sex, and Status*. Toronto, Canada: University of Toronto Press.

Basinska, B. E., & Gruszcynsaka, E. (2017). Positivity and job burnout in emergency personnel: Examining linear and curvilinear relationship. *Polish Psychological Bulletin, 48*(2), 212-219. doi:10.1515/ppb-2017-0024

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497-529.

Beck, J. S. (2011). *Cognitive behavior therapy: Basics and beyond*. New York: Guliford Press.

Beer, J. S. (2002). Implicit self-theories of shyness. *Journal of Personality and Social Psychology, 83*(4), 1009-1024. doi:10.1037//0022-3514.83.4.1009

Bennett, D. S., Sullivan, M. W., & Lewis, M. (2010). Neglected children, shame-proneness, and depressive symptoms. *Child Maltreatment, 15*(4), 305-314.

Bessant, J., & Watts, R. (1995). Young people and violence: A focus on schools (a report of a pilot study). In S. J. Egger & D. Chappell (Eds.), *Australian Violence: Contemporary perspectives* (pp. 105-122). Canberra: Australian Institute of Criminology.

Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development, 78*(1), 246-263.

Braithwaite, V., Ahmed, E., Morrison, B., & Reinhart, M. (2003). Researching the prospects for restorative justice practice in schools: The 'Life at School Survey' 1996-9. In L.

Walgrave (Ed.), *Repositioning the Restorative Justice: Restorative justice, criminal justice and social context* (pp. 169-190). Devon, UK: Willan Publishing.

Brehm, J. W. (1999). The intensity of emotion. *Personality and Social Psychology Review, 3*(1), 2-22.

Breines, J. G., & Chen, S. (2012). Self-compassion increases self-improvement motivation. *Personality and Social Psychology Bulletin, 38*(9), 1133-1143. doi:10.1177/0146167212445599

Brook, A. T., Garcia, J., & Fleming, M. (2008). The effects of multiple sdentities on psychological well-being. *Personality and Social Psychology Bulletin, 34*(12), 1588-1600.

Brown, B. (2006). Shame Resilience Theory: A grounded theory study on women and shame. *Families in Society, 87*(1), 43 - 52.

Brown, R., & Cehajic, S. (2008). Dealing with the past and facing the future: Mediators of the effect of collective guilt and shame in Bosnia and Herzegovina. *European Journal of Social Psychology, 38*(2), 669-684.

Brown, R., Gonzalez, R., Zagefka, H., Manzi, J., & Cehajic, S. (2008). Neustra culpa: Collective guilt and shame as predictors of reparation for historical wrongdoing. *Journal of Personality and Social Psychology, 94*(1), 75-90. doi:10.1037/0022-3514.94.1.75

Budden, A. (2009). The role of shame in posttraumatic stress disorder: a proposal for a socio-emotional model for DSM-V. *Social Science and Medicine, 69*(7), 1032-1039. doi:10.1016/j.socscimed.2009.07.032

Byron, K. (2005). A meta-analytic review of work–family conflict and its antecedents. *Journal of Vocational Behavior, 67*(2), 169-198. doi:10.1016/j.jvb.2004.08.009

Carvalho, S., Dinis, A., Pinto-Gouveia, J., & Estanqueiro, C. (2015). Memories of shame experiences with others and depression symptoms: the mediating role of experiential avoidance. *Clinical Psychology & Psychotherapy, 22*(1), 32-44. doi:10.1002/cpp.1862

Chao, Y.-H., Cheng, Y., & Chiou, W. (2011). The psychological consequence of experiencing shame: Self-sufficiency and mood-repair. *Motivation and Emotion, 35*(2), 202-210. doi:10.1007/s11031-011-9208-y

Cheng, C.-Y., & Lee, F. (2009). Multiracial identity integration: perceptions of conflict and distance among multiracial individuals. *Journal of Social Issues, 65*(1), 51-68.

Cheung, M. S. P., Gilbert, P., & Irons, C. (2004). An exploration of shame, social rank and rumination in relation to depression. *Personality and Individual Differences, 36*(5), 1143-1153. doi:10.1016/s0191-8869(03)00206-x

Christensen, N., Rothgerber, H., Wood, W., & Matz, D. (2004). Social norms and identity relevance: A motivational approach to normative behaviour. *Personality and Social Psychology Bulletin, 30*(10), 1295-1309.

Clark, L. A., & Watson, D. (1994). Distinguishing functional from dysfunctional affective response. In P. Ekman & R. J. Davidson (Eds.), *The Nature of Emotions. Fundamental questions* (pp. 131-136). Oxford, England: Oxford University Press.

Cohen, T. R., Wolf, S. T., Panter, A. T., & Chester, A. I. (2011). Introducing the GASP Scale: A new measure of guilt and shame proneness. *Journal of Personality and Social Psychology, 100*(5), 947-966.

Correll, S. J., Benard, S., & Paik, I. (2007). Getting a job: Is there a motherhood penalty? *American Journal of Sociology, 112*(5), 1297-1338.

Covert, M. V., Tangney, J. P., Maddux, J. E., & Heleno, N. M. (2003). Shame-proneness, guilt-proneness, and interpersonal problem solving: A social cognitive analysis. *Journal of Social and Clinical Psychology, 22*(1), 1-12.

Coyle, A., & Rafalin, D. (2001). Jewish gay men's accounts of negotiating cultural, religious, and sexual identity. *Journal of Psychology & Human Sexuality, 12*(4), 21-48. doi:10.1300/J056v12n04_02

Crabb, A. (2014). *The Wife Drought*. Sydney, NSW: Random House Australia.

Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2004). When professionals become mothers, warmth doesn't cut the ice. *Journal of Social Issues, 60*(4), 701-710.

Dayal, H., Weaver, K., & Domene, J. F. (2015). From shame to shame resilience: narratives of counselor trainees with eating issues. *Qualitative Health Research, 25*(2), 153-167. doi:10.1177/1049732314551988

de Hooge, I. E. (2014). The general sociometer shame: Positive interpersonal consequences of an ugly emotion. In K. G. Lockhart (Ed.), *Psychology of Shame: New Research* (pp. 96 - 109). New York: Nova Science Publishers.

de Hooge, I. E., Zeelenberg, M., & Breugelmans, S. M. (2010). Restore and protect motivations following shame. *Cognition and Emotion, 24*(1), 111-127. doi:10.1080/02699930802584466

de Hooge, I. E., Zeelenberg, M., & Breugelmans, S. M. (2011). A functionalist account of shame-induced behaviour. *Cognition and Emotion, 25*(5), 939-946.

Dickerson, S. S., Gruenewald, T. L., & Kemeny, M. E. (2004). When the social self is threatened: Shame , physiology, and health. *Journal of Personality, 72*(6), 1191-1216.

Doliński, D. (2018). Is psychology still a science of behaviour? *Social Psychological Bulletin, 13*(2). doi:10.5964/spb.v13i2.25025

Dost, A., & Yagmurlu, B. (2008). Are constructiveness and destructiveness essential features of guilt and shame feelings respectively? *Journal for the Theory of Social Behaviour, 38*(2), 109-129.

Dweck, C. (2003). *Self-Theories: Their Role in Motivation, Personality, and Development*. Philadelphia: Psychology Press.

Dweck, C. S., & Molden, D. C. (2005). Self-theories: Their impact on competence motivation and acquisition. In A. J. Elliot & C. S. Dweck (Eds.), *Handbook of Competence and Motivation* (pp. 122-140). New York: Guliford Press.

Feiring, C., & Taska, L. S. (2005). The persistence of shame following sexual abuse: a longitudinal look at risk and recovery. *Child Maltreatment, 10*(4), 337-349. doi:10.1177/1077559505276686

Ferguson, T. J. (2005). Mapping shame and its functions in relationships. *Child Maltreatment, 10*(4), 377-386. doi:10.1177/1077559505281430

Ferguson, T. J., Stegge, H., & Damhuis, I. (1991). Children's understanding of guilt and shame. *Child Development, 62*(4), 827-839.

Fessler, D. M. T. (1999). Toward an understanding of the universality of second order emotions. In A. Hinton (Ed.), *Beyond Nature or Nurture: Biocultural Approaches to the Emotions* (pp. 75-116). New York: Cambridge University Press.

Fessler, D. M. T. (2007). From appeasement to conformity: Evolutionary and cultural perspectives on shame, competition, and cooperation. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The Self-Conscious Emotions: Theory and Research* (pp. 174-193). New York: Guliford Press.

Fessler, D. M. T., & Haley, K. J. (2003). The Strategy of Affect: Emotions in Human Cooperation. In P. Hammerstein (Ed.), *Genetic and Cultural Evolution of Cooperation* (pp. 7-36). Cambridge: MIT Press.

Field, A. P. (2013). *Discovering Statistics Using IBM SPSS Statistics: And Sex and Drugs and Rock 'n' Roll* (4th ed.). London: Sage.

Frijda, N. H., Kuipers, P., & ter Schure, E. (1989). Relations among emotion, appraisal, and emotional action readiness. *Journal of Personality and Social Psychology, 57*(2), 212-228.

Gable, S. L., & Gosnell, C. L. (2013). Approach and avoidance behavior in interpersonal relationships. *Emotion Review, 5*(3), 269-274. doi:10.1177/1754073913477513

Gausel, N., & Leach, C. W. (2011). Concern for self-image and social image in the management of moral failure: Rethinking shame. *European Journal of Social Psychology, 41*(4), 468 - 478.

Gausel, N., Leach, C. W., Vignoles, V. L., & Brown, R. (2012). Defend or repair? Explaining responses to in-group moral failure by disentangling feelings of shame, rejection, and inferiority. *Journal of Personality and Social Psychology, 102*(5), 941-960.

Gausel, N., Vignoles, V. L., & Leach, C. W. (2015). Resolving the paradox of shame: Differentiating among specific appraisal-feeling combinations explains pro-social and self-defensive motivation. *Motivation and Emotion*. doi:10.1007/s11031-015-9513-y

Gilbert, P. (2000). The relationship of shame, social anxiety, and depression: The role of evaluation and social rank. *Clinical Psychology & Psychotherapy, 7*(3), 174-189.

Gilbert, P. (2003). Evolution, social roles, and the differences in shame and guilt. *Social Research, 70*(4), 1205-1231.

Gilbert, P. (2007). The evolution of shame as a marker for relationship security: A biopsychosocial approach. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The Self-Conscious Emotions* (pp. 283-309). New York: The Guliford Press.

Gilbert, P., & Procter, S. (2006). Compassionate mind training for people with high shame and self-criticism: overview and pilot study of a group therapy approach. *Clinical Psychology & Psychotherapy, 13*(6), 353-379. doi:10.1002/cpp.507

Giner-Sorolla, R., Piazza, J., & Espinosa, P. (2011). What do the TOSCA guilt and shame scales really measure: Affect or action? *Personality and Individual Differences, 51*(4), 445-450. doi:10.1016/j.paid.2011.04.010

Goetz, J. L., Keltner, D., & Simon-Thomas, E. (2010). Compassion: an evolutionary analysis and empirical review. *Psychological Bulletin, 136*(3), 351-374. doi:10.1037/a0018807

Goldberg, D. P., & Hillier, V. F. (1979). A scaled version of the General Health Questionnaire. *Psychological Medicine, 9*, 139-145.

Good, C., Aronson, J., & Inzlicht, M. (2003). Improving adolescents' standardized test performance: An intervention to reduce the effects of stereotype threat. *Journal of Applied Developmental Psychology, 24*(6), 645-662. doi:10.1016/j.appdev.2003.09.002

Goss, K., Gilbert, P., & Allan, S. (1994). An exploration of shame measures: I: The other as shamer scale. *Personality and Individual Differences, 17*(5), 713-717.

Gray, M. J., Schorr, Y., Nash, W., Lebowitz, L., Amidon, A., Lansing, A., . . . Litz, B. T. (2012). Adaptive disclosure: an open trial of a novel exposure-based intervention for service members with combat-related psychological stress injuries. *Behavior Therapy, 43*(2), 407-415. doi:10.1016/j.beth.2011.09.001

Greenaway, K. H., Kalokerinos, E. K., & Williams, L. A. (2018). Context is everything (in emotion research). *Social and Personality Psychology Compass*, *12*(6), 1-18.

Gruenewald, T. L., Dickerson, S., S., & Kemeny, M., E. (2007). A social function for self-conscious emotions. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The Self-*

Conscious Emotions: Theory and Research (pp. 68-87). New York: The Guliford Press.

Guendouzi, J. (2006). "The guilt thing": Balancing domestic and professional roles. *Journal of Marriage and Family, 68*, 901-909.

Haines, S. J., Gleeson, J., Kuppens, P., Hollenstein, T., Ciarrochi, J., Labuschagne, I., . . . Koval, P. (2016). The wisdom to know the difference. *Psychological Science, 27*(12), 1651-1659. doi:10.1177/0956797616669086

Harder, D. H., & Zalma, A. (1990). Two promising shame and guilt scales: A construct validity comparison. *Journal of Personality Assessment, 55*(3), 729-745.

Hare, R. D., Frazelle, J., & Cox, D. N. (1978). Psychopathy and physiological responses to threat of an aversive stimulus. *Psychophysiology, 15*(2), 165-172.

Harris, C. R., & Darby, R. S. (2009). Shame in physician–patient interactions: Patient perspectives. *Basic and Applied Social Psychology, 31*(4), 325-334. doi:10.1080/01973530903316922

Harris, N. (2007). *Shame, Ethical Identity and Conformity: Lessons from research on the psychology of social influence*. Retrieved from http://regnet.anu.edu.au/sites/default/files/publications/attachments/2015-05/ROP12a_0.pdf

Haselhuhn, M. P., Schweitzer, M. E., & Wood, A. M. (2010). How implicit beliefs influence trust recovery. *Psychological Science, 21*(5), 645-648. doi:10.1177/0956797610367752

Hayes, A. F. (2013). *Introduction to Mediation, Moderation and Conditional Process Analysis*. New York: Guliford Press.

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy, 44*(1), 1-25.

Henniger, N. E., & Harris, C. R. (2014). Can negative social emotions have positive consequences? An examination of embarrassment, shame, guilt, jealousy, and envy. In W. G. Parrott (Ed.), *The Positive Side of Negative Emotions* (pp. 76-97). New York: Guliford Publications.

Henry, J. D., & Crawford, J. R. (2005). The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology, 44*(2), 227-239. doi:10.1348/014466505X29657

Hirsh, J. B., & Kang, S. K. (2015). Mechanisms of identity conflict: Uncertainty, anxiety, and the behavioral inhibition system. *Personality and Social Psychology Review*, 1-22. doi:10.1177/1088868315589475

Hong, Y., Chiu, C., Dweck, C., Lin, D. M., & Wan, W. (1999). Implicit theories, attributions, and coping: A meaning systems approach. *Journal of Personality and Social Psychology, 77*(3), 588-599.

Hutcheson, G., & Sofroniou, N. (1999). *The Multivariate Social Scientist*. London: Sage.

Iyer, A., Schmader, T., & Lickel, B. (2007). Why individuals protest the perceived transgressions of their country: The role of anger, shame, and guilt. *Personality and Social Psychology Bulletin, 33*(4), 572-587. doi:10.1177/0146167206297402

Jetten, J., Haslam, C., & Haslam, A. (Eds.). (2012). *The Social Cure: Identity, Health and Well-Being*. New York: Psychology Press.

Jetten, J., Spears, R., & Manstead, A. (1997). Strength of identification and intergroup differentiation: the influence of group norms. *European Journal of Social Psychology, 27*, 603-609.

Jones, J. M., & Hynie, M. (2017). Similarly torn, differentially shorn? The experience and management of conflict between multiple roles, relationships, and social categories. *Frontiers in Psychology, 8*, 1732. doi:10.3389/fpsyg.2017.01732

Jonsson, A., & Segesten, K. (2004). Guilt, shame and need for a container: a study of post-traumatic stress among ambulance personnel. *Accident and Emergency Nursing, 12*(4), 215-223.

Kearns, J. N., & Fincham, F. D. (2005). Victim and perpetrator accounts of interpersonal transgressions: self-serving or relationship-serving biases? *Personality and Social Psychology Bulletin, 31*(3), 321-333. doi:10.1177/0146167204271594

Keith, L., Gillanders, D., & Simpson, S. (2009). An exploration of the main sources of shame in an eating-disordered population. *Clinical Psychology and Psychotherapy, 16*(4), 317-327. doi:10.1002/cpp.629

Kelley, H. H., & Michela, J. L. (1980). Attribution theory and research. *Annual Review of Psychology, 31*(1), 457-501.

Kelly, E. L., Ammons, S. K., Chermack, K., & Moen, P. (2010). Gendered challenge, gendered response: Confronting the ideal worker norm in a white-collar organization. *Gender & Society, 24*(3), 281-303. doi:10.1177/0891243210372073

Keltner, D. (1996). Evidence for the distinctness of embarrassment, shame, and guilt: A study of recalled antecedents and facial expressions of emotion. *Cognition & Emotion, 10*(2), 155-172. doi:10.1080/026999396380312

Keltner, D., & Gross, J. (1999). Functional accounts of emotions. *Cognition and Emotion, 13*(5), 467-480.

Kim, S., Thibodeau, R., & Jorgensen, R. S. (2011). Shame, guilt, and depressive symptoms: a meta-analytic review. *Psychological Bulletin, 137*(1), 68-96. doi:10.1037/a0021466

Kreutzer, J. S., DeLuca, J., & Caplan, B. (2011). *Encyclopedia of Clinical Neuropsychology*.

Krugman, S. (1995). Male development and the transformation of shame. In R. F. Levant & W. S. Pollack (Eds.), *A New Psychology of Men*. New York: Basic.

La Bash, H., & Papa, A. (2014). Shame and PTSD symptoms. *Psychological Trauma: Theory, Research, Practice, and Policy, 6*(2), 159-166. doi:10.1037/a0032637

Lazarus, R. D., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality, 1*(1), 141-169.

Leach, C. W., & Cidam, A. (2015). When is shame linked to constructive approach orientation? A meta-analysis. *Journal of Personality and Social Psychology, 109*(6), 983-1002. doi:10.1037/pspa0000037

Leary, M., & Baumeister, R. F. (2000). The nature and function of self-esteem: Sociometer Theory. *Advances in Experimental Social Psychology, 32*, 1-62. doi:10.1016/S0065-2601(00)80003-9

Leary, M., Tambor, E. S., Terdal, S. K., & Downs, D. L. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology, 68*(3), 518-530.

Leary, M. R., Raimi, K. T., Jongman-Sereno, K. P., & Diebels, K. J. (2015). Distinguishing intrapsychic from interpersonal motives in psychological theory and research. *Perspectives on Psychological Science, 10*(4), 497-517. doi:10.1177/1745691615583132

Leaviss, J., & Uttley, L. (2015). Psychotherapeutic benefits of compassion-focused therapy: An early systematic review. *Psychological Medicine*, *45*(5), 927-945.

Lee, D. A., Scragg, P., & Turner, S. (2001). The role of shame and guilt in traumatic events: A clinical model of shame-based and guilt-based PTSD. *British Journal of Medical Psychology, 74*, 451-466.

Leith, K. P., & Baumeister, R. F. (1998). Empathy, shame, guilt and narratives of interpersonal conflicts: Guilt-prone people are better at perspective taking. *Journal of Personality, 66*(1), 1-37.

Lewis, H. B. (1971). *Shame and guilt in neurosis*. New York: International Universities Press.

Li, Y., & Bates, T. C. (2017). *Does Growth Mindset Improve Children's IQ, Educational Attainment or Response to Setbacks? Active-Control Interventions and Data on Children's Own Mindsets*. Retrieved from https://osf. io/preprints/socarxiv/tsdwy/download.

Lickel, B., Kushlev, K., Savalei, V., Matta, S., & Schmader, T. (2014). Shame and the motivation to change the self. *Emotion, 14*(6), 1049-1061. doi:10.1037/a0038235

Lindstrom, U. H., Hamberg, K., & Johansson, E. E. (2011). Medical students' experiences of shame in professional enculturation. *Medical Education, 45*(10), 1016 - 1124.

Liss, M., Schiffrin, H. H., & Rizzo, K. M. (2013). Maternal guilt and shame: The role of self-discrepancy and fear of negative evaluation. *Journal of Child and Family Studies, 22*, 1112-1119.

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety and Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy, 33*(3), 335-343.

Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation fo one's social identity. *Personality and Social Psychology Bulletin, 18*, 302-318.

Luoma, J. B., Kohlenberg, B. S., Hayes, S. C., & Fletcher, L. (2012). Slow and steady wins the race: a randomized clinical trial of acceptance and commitment therapy targeting shame in substance use disorders. *Journal of Consulting and Clinical Psychology, 80*(1), 43-53. doi:10.1037/a0026070

Lutwak, N., Panish, J. B., Ferrari, J. R., & Razzino, B. E. (2001). Shame and guilt and their relationship to positive expectations and anger expressiveness. *Adolescence, 36*, 641-653.

Luyten, P., Fontaine, J. R. J., & Corveleyn, J. (2002). Does the Test of Self-Conscious Affect (TOSCA) measure maladaptive aspects of guilt and adaptive aspects of shame? An empirical investigation. *Personality and Individual Differences, 33*(8), 1373-1387. doi:10.1016/s0191-8869(02)00197-6

Mackie, D. M., Hamilton, D. L., Susskind, J., & Rosselli, F. (1996). Social psychological foundations of stereotype formation. In C. N. Macrae, C. Stangor, & M. Hewstone (Eds.), *Stereotypes and Stereotyping*. New York: Guliford.

Mangels, J. A., Butterfield, B., Lamb, J., Good, C., & Dweck, C. S. (2006). Why do beliefs about intelligence influence learning success? A social cognitive neuroscience model. *Social Cognitive and Affective Neuroscience, 1*(2), 75-86. doi:10.1093/scan/nsl013

Marks, I. (1987). *Fears, Phobias and Rituals: Panic, Anxiety, and their Disorders*. New York: Oxford University Press.

Matos, M., Pinto-Gouveia, J., & Gilbert, P. (2013). The effect of shame and shame memories on paranoid ideation and social anxiety. *Clinical Psychology & Psychotherapy, 20*(4), 334-349. doi:10.1002/cpp.1766

Menesini, E., & Camodeca, M. (2008). Shame and guilt as behaviour regulators: Relationships with bullying, victimization and prosocial behaviour. *British Journal of Developmental Psychology, 26*(2), 183-196. doi:10.1348/026151007x205281

Moser, J. S., Schroder, H. S., Heeter, C., Moran, T. P., & Lee, Y. H. (2011). Mind your errors: evidence for a neural mechanism linking growth mind-set to adaptive posterror adjustments. *Psychological Science, 22*(12), 1484-1489. doi:10.1177/0956797611419520

Muris, P., & Meesters, C. (2014). Small or big in the eyes of the other: On the developmental psychopathology of self-conscious emotions as shame, guilt and pride. *Clinical Child and Family Psychology Review, 17*(1), 19-40.

Neff, K. D., & Vonk, R. (2009). Self-compassion versus global self-esteem: two different ways of relating to oneself. *Journal of Personality, 77*(1), 23-50. doi:10.1111/j.1467-6494.2008.00537.x

Nelissen, R. M. A., Breugelmans, S. M., & Zeelenberg, M. (2013). Reappraising the moral nature of emotions in decision making: The case of shame and guilt. *Social and Personality Psychology Compass, 7*(6), 355-365.

Nikitin, J., & Freund, A. M. (2009). When wanting and fearing go together: The effect of co-occurring social approach and avoidance motivation on behavior, affect, and cognition. *European Journal of Social Psychology*, *40*(5), 783-804. doi:10.1002/ejsp.650

Noor, N. M. (2004). Work-family conflict, work- and family-role salience, and women's well-being. *Journal of Social Psychology, 144*(4), 389-405. doi:10.3200/SOCP.144.4.389-406

Nussbaum, D., & Dweck, C. (2009). Defensiveness versus remediation: Self-theories and modes of self-esteem maintenance. *Personality and Social Psychology Bulletin, 34*(2), 599-612.

Oktedalen, T., Hoffart, A., & Langkaas, T. F. (2015). Trauma-related shame and guilt as time-varying predictors of posttraumatic stress disorder symptoms during imagery

exposure and imagery rescripting-A randomized controlled trial. *Psychotherapy Research, 25*(5), 518-532. doi:10.1080/10503307.2014.917217

Olthof, T. (2012). Anticipated feelings of guilt and shame as predictors of early adolescents' antisocial and prosocial interpersonal behaviour. *European Journal of Developmental Psychology, 9*(3), 371-388. doi:10.1080/17405629.2012.680300

Parks, C. D., & Hulbert, L. G. (1995). High and low trusters' responses to fear in a payoff matrix. *Journal of Conflict Resolution, 39*(4), 718-730.

Polasky, L. J., & Holahan, C. K. (1998). Maternal self-discrepancies, interrole conflict, and negative affect among married professional women with children. *Journal of Family Psychology, 12*(3), 388-401.

Rienzo, C., Rolfe, H., & Wilkinson, D. (2015). *Changing mindsets*. Retrieved from

Ritter, K., Vater, A., Rusch, N., Schroder-Abe, M., Schutz, A., Fydrich, T., . . . Roepke, S. (2013). Shame in patients with narcissistic personality disorder. *Psychiatry Research, 215*(2), 429-437.

Roseman, I. J., Wiest, C., & Swartz, T. S. (1994). Phenomenology, behaviours, and goals differentiate discrete emotions. *Journal of Behavioural and Social Psychology, 67*(2), 206-221.

Rubin, S. E., & Wooten, H. R. (2007). Highly educated stay-at-home mothers: A study of commitment and conflict. *The Family Journal: Counselling and Therapy for Couples and Families, 15*(4), 336-345.

Ruvolo, A. P., & Rotondo, J. L. (1998). Diamonds in the rough: Implicit personality theories and views of partner and self. *Personality and Social Psychology Bulletin, 24*(7), 750-758.

Scheff, T. J. (1988). Shame and conformity: The deference-emotion system. *American Sociological Review, 53*(3), 395-406.

Schmader, T., & Lickel, B. (2006). The approach and avoidance function of guilt and shame emotions: Comparing reactions to self-caused and other-caused wrongdoing. *Motivation and Emotion, 30*(1), 43-56. doi:10.1007/s11031-006-9006-0

Schuck, K. D., & Liddle, B. J. (2001). Religious conflicts experienced by lesbian, gay, and bisexual individuals. *Journal of Gay & Lesbian Psychotherapy, 5*(2), 63-82. doi:10.1300/J236v05n02_07

Schumann, K., & Dweck, C. S. (2014). Who accepts responsibility for their transgressions? *Personality and Social Psychology Bulletin, 40*(12), 1598-1610. doi:10.1177/0146167214552789

Settles, I. H. (2004). When multiple identities interfere: the role of identity centrality. *Personality and Social Psychology Bulletin, 30*(4), 487-500. doi:10.1177/0146167203261885

Sheikh, S., & Janoff-Bulman, R. (2010). The "shoulds" and "should nots" of moral emotions: a self-regulatory perspective on shame and guilt. *Personality and Social Psychology Bulletin, 36*(2), 213-224. doi:10.1177/0146167209356788

Sisk, V. F., Burgoyne, A. P., Sun, J., Butler, J. L., & Macnamara, B. N. (2018). To what extent and under which circumstances are growth mind-sets important to academic achievement? Two meta-analyses. *Psychological Science, 29*(4), 549-571. doi:10.1177/0956797617739704

Sutherland, J. (2010). Mothering, guilt and shame. *Sociology Compass, 4*(5), 310-321.

Tabachnick, B. G., & Fidell, L. S. (2012). *Using Multivariate Statistics* (6th Edition ed.). Boston: Pearson Education.

Tajfel, H. (1981). *Human Groups and Social Categories*. Cambridge: Cambridge University Press.

Tangney, J. P. (1990). Assessing individual differences in proneness to shame and guilt: Development of the self-conscious affect and attribution inventory. *Journal of Personality and Social Psychology, 59*(1), 102-111.

Tangney, J. P. (1991). Moral affect: The good, the bad, and the ugly. *Journal of Personality and Social Psychology, 61*(4), 598-607.

Tangney, J. P. (1992). Situational determinants of shame and guilt in young adulthood. *Personality and Social Psychology Bulletin, 18*(2), 199-206.

Tangney, J. P. (1995a). Recent advances in the empirical study of shame and guilt. *American Behavioural Scientist, 38*(8), 1132-1145.

Tangney, J. P. (1995b). Shame and guilt in interpersonal relationships. In J. P. Tangney & K. W. Fischer (Eds.), *Self-Conscious Emotions: Shame, Guilt, Embarrassment, and Pride* (pp. 114-139). New York: Guliford.

Tangney, J. P., & Dearing, R. L. (2002). *Shame and Guilt*. New York, New York: Guliford Press.

Tangney, J. P., Dearing, R. L., Wagner, P. E., & Gramzow, R. (2000). *The Test of Self-Conscious Affect-3 (TOSCA-3)*. Virginia: Fairfax.

Tangney, J. P., Miller, R. S., Flicker, L., & Barlow, D. H. (1996). Are shame, guilt, and embarrassment distinct emotions? *Journal of Personality and Social Psychology, 70*(6), 1256-1269.

Tangney, J. P., Stuewig, J., & Martinex, A. G. (2014). Two faces of shame: The roles of shame and guilt in predicting recidivism. *Psychological Science, 25*(3), 799-805.

Tangney, J. P., Wagner, P. E., Fletcher, C., & Gramzow, R. (1992). Shamed into anger? The relation of shame and guilt to anger and self-reported aggression. *Journal of Personality and Social Psychology, 62*, 669-675.

TED (Producer). (2012). Listening to shame. Retrieved from https://www.ted.com/talks/brene_brown_listening_to_shame?language=en

Terry, D. J., & Hogg, M. A. (1996). Group norms and the attitude-behaviour relationship: A role for group identification. *Personality and Social Psychology Bulletin, 22*(8), 776-793.

Townsend, S. S. M., Markus, H. R., & Bergsieker, H. B. (2009). My choice, your categories: the denial of multiracial identities. *Journal of Social Issues, 65*(1), 185-204.

Tracy, J. L., & Robins, R. W. (2004). Putting the Self Into Self-Conscious Emotions: A Theoretical Model. *Psychological Inquiry, 15*(2), 103-125. doi:10.1207/s15327965pli1502_01

Turner, J., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the Social Group: A Self-Categorization Theory*. Oxford, UK: Basil Blackwell.

Turner, J., Husman, J., & Schallert, D. (2002). The importance of students' goals in their emotional experience of academic failure: Investigating the precursors and consequences of shame. *Educational Psychologist, 37*(2), 79-89. doi:10.1207/s15326985ep3702_3

Turner, J. E. (2014). Researching state shame with the Experiential Shame Scale. *Journal of Psychology, 148*(5), 577-601. doi:10.1080/00223980.2013.818927

Van Vliet, K. J. (2008). Shame and resilience in adulthood: A grounded theory study. *Journal of Counselling Psychology, 55*(2), 233-245. doi:10.1037/0022-0167.55.2.233

Watson, D., & Stanton, K. (2017). Emotion blends and mixed emotions in the hierarchical structure of affect. *Emotion Review, 9*(2), 99-104. doi:10.1177/1754073916639659

Weidman, A. C., Steckler, C. M., & Tracy, J. L. (2016). The jingle and jangle of emotion assessment: Imprecise measurement, Casual scale usage, and conceptual fuzziness in emotion research. *Emotion*. doi:10.1037/emo0000226

Wood, W., Christensen, N., Hebl, M., & Rothgerber, H. (1997). Conformity to sex-typed norms, affect, and the self-concept. *Journal of Personality and Social Psychology, 73*(3), 523-535.

Woodyatt, L., & Wenzel, M. (2013). The psychological immune response in the face of transgressions: Pseudo self-forgiveness and threat to belonging. *Journal of Experimental Social Psychology, 49*(6), 951-958. doi:10.1016/j.jesp.2013.05.016

Woodyatt, L., & Wenzel, M. (2014). A needs-based perspective on self-forgiveness: Addressing threat to moral identity as a means of encouraging interpersonal and intrapersonal restoration. *Journal of Experimental Psychology, 50*, 125 - 135.

Yerkes, R. M., & Dodson, J. D. (1908). The relationship of strength of stimulus to rapidity of habit formation. *Journal of Comparative Neurology and Psychology, 18*, 459-482.

Appendices

Appendix A: Study 2.2 Self-Theory Manipulation

Incremental Belief Condition

Personality changes across the lifespan

SCIENCE

The Conversation By Karin Forrest, Monash University

Updated 17 Nov 2016, 7:10am

Human nature used to be thought of as a set of fixed traits, each of which, once formed, remained fairly rigid throughout life. However, a large body of recent research, conducted by the Australian Psychological Council (APC), has cast doubt on such an assumption.

"There has been a significant amount of evidence collected over the past several decades, including case studies of individuals and longitudinal studies involving cross-cultural samples, strongly indicating that a person's personality is a fairly dynamic construct", said Dr Andrew Pope from the Australian Psychological Council.

According to the research, by the time a person enters high school - roughly at 14 to 16 years of age - their personality traits (e.g. how organized they are, how outgoing they are, how honest they are etc.) are not fixed, and are likely to change as they get older.

PHOTO: A large body of research suggests that personality changes across the lifespan (Flickr: Quinn Dobivisk)

RELATED STORY: Fact Check: Will thinking positively make you happier?

RELATED STORY: Children's entertainers speak out against creepy clown phase

RELATED STORY: Fact Check: Are millions of taxpayer dollars being wasted on poorly performing IVF clinics?

As a result, psychologists and social scientists at the ARC have arrived at the conclusion that people posses a relatively unlimited set of flexible straits. "There is no doubt that people's personality characteristics begin with a firm foundation, however, as they age and mature these characteristics change and develop", concluded Dr Pope.

Entity Belief Condition

Personality remains stable across the lifespan

SCIENCE

The Conversation By Karin Forrest, Monash University

Updated 17 Nov 2016, 7:10am

Human nature used to be thought of as a bundle of potentialities, each of which, once formed, could be developed throughout life. However, a large body of recent research, conducted by the Australian Psychological Council (APC), has cast doubt on such an assumption.

"There has been a significant amount of evidence collected over the past several decades, including case studies of individuals and longitudinal studies involving cross-cultural samples, strongly indicating that a person's personality is a fairly rigid construct", said Dr Andrew Pope from the Australian Psychological Council.

According to the research, by the time a person enters high school - roughly at 14 to 16 years of age - their personality traits (e.g. how organized they are, how outgoing they are, how honest they are etc.) have become relatively well formed, and are unlikely to change significantly as they get older.

PHOTO: A large body of research suggests that personality remains stable across the lifespan (Flickr: Quinn Dobivisk)

RELATED STORY: Fact Check: Will thinking positively make you happier?

RELATED STORY: Children's entertainers speak out against creepy clown phase

RELATED STORY: Fact Check: Are millions of taxpayer dollars being wasted on poorly performing IVF clinics?

As a result, psychologists and social scientists at the ARC have arrived at the conclusion that people posses a relatively finite set of rather fixed traits. "There is no doubt that people change as they age and develop, however, it is now fairly well established that they do so on the foundation of fundamentally enduring dispositions", concluded Dr Pope.

Appendix B: Study 2.2 Shame Manipulation

High Moral Shame

Imagine that you're invited to a good friend's birthday celebration on an upcoming Saturday. Although you really like your friend, you find their other friends to be boring and would rather spend the day doing something else. You tell your friend that you're sorry you can't make it, but you'll be out of town that weekend. When the weekend comes, you forget about the lie you told, and on the day of the party you send a group message to some friends asking who else was "lucky enough" to "get out of going to the birthday party" and would like to join you for a drink. Immediately after you press "send", you realised you accidently included the friend's whose party was on within the group chat. You can't prevent her from seeing what you wrote. Your stomach sinks.

Low Moral Shame

Imagine that you're invited to a good friend's birthday celebration on an upcoming Saturday. Although you really like your friend, you've already made plans to go out of town that weekend. You tell your friend that you're sorry you can't make it, but you'll be out of town. When the weekend comes, the friends you were planning to go away with are sick, so the trip is cancelled. Within this change of plans, you totally forget that your friend's birthday party is on Saturday. On Sunday, the day after the party, you send a group message to your friends explaining that your trip was cancelled and asking if they would like to get drinks. Immediately after you press "send", you realise that you totally forgot about your friend's party the day before, and they were included in the group chat. You wish you didn't forget about the party the day before, and you hope your friend understands it was an honest oversight.

High Performance Shame (de Hooge et al., 2010)

Imagine you are following a course where everybody has to give a presentation in a work group. In the work group, 25 fellow students are present. When you have to give your presentation everything goes completely wrong. You stumble over your own words, your story is muddled and at the end it is clear that nobody understood what you were trying to say. At the end some people from the audience as your questions, then it becomes clear that you have no mastery of the subject at all.

Low Performance Shame (de Hooge et al., 2010)

Imagine you are following a course where everybody has to give a presentation in a work group. In the work group, 25 fellow students are present. When you have to give your presentation everything goes normally. Your presentation is as good as those of the other students and in no way do you stand out.

Appendix C: Study 2.3 Binomial Logistic Regression Results

Effect of Self-Theory, Shame Severity and Shame Domain Conditions on Dichotomous Approach Choice.

A binomial logistic regression was performed to ascertain the effect of self-theory, shame severity and shame domain conditions, as well as their two- and three-way interactions, on dichotomous approach choice. The overall logistic regression model was statistically significant, $\chi^2(7) = 36.38$, $p < .001$. The model explained 19.0% (Nagelkerke R^2) of the variance in approach choice and correctly classified 67.2% of cases. See Table 29 for full details of the regression models. There was not a significant three-way interaction, and contrary to predictions, there was not a significant interaction between self-theory and shame severity on approach choice. However, there was an unexpected interaction between shame domain and shame severity. This was such that in the moral shame condition, a higher percentage of participants chose to approach when shame was low (69%) compared to when shame was low (19%). Whereas in the performance shame condition, a higher percentage of participants chose to approach when shame was high (55%) compared to when shame was low (45%).

Table 5.1

Logistic Regression Predicting Likelihood of Approach Choice Based on Shame Domain Condition, Shame Severity Condition, Self-Theory Condition and Their Two- and Three-Way Interactions

Predictor and block	*B*	*SE*	Wald	*df*	*p*	Odds Ratio	$CI_{95\%}$ for Odds Ratio
Block 1	$\chi^2(3) = 11.48$, $p = .009$, Nagelkerke $R^2 = .06$						
Self-Theory	-.27	.134	4.03	1	.045	.76	[.59; .99]
Domain	-.04	.267	.02	1	.886	.96	[.57; 1.62]
Severity	.72	.267	7.30	1	.007	2.06	[1.22; 3.48]

Constant	-.13	.229	.30	1	.581	.88	
Block 2	$\chi^2(3) = 23.71$, $p < .001$, Nagelkerke $R^2 = .18$						
Self-Theory	-.53	.245	4.72	1	.030	.59	[.36; .95]
Domain	-1.33	.401	11.02	1	.001	.27	[.12; .58]
Severity	-.54	.387	1.97	1	.160	.581	[.27; 1.24]
Domain × Self-Theory	.38	.285	1.77	1	.184	1.46	[.84; 2.56]
Severity × Self-Theory	.06	.285	.05	1	.822	1.07	[.61; 1.86]
Domain × Severity	2.57	.57	20.31	1	<.001	13.02	[4.26; 39.75]
Constant	.53	.281	3.52	1	.061	1.69	
Block 3	$\chi^2(1) = 1.18$, $p = .277$, Nagelkerke $R^2 = .19$						
Self-Theory	-.69	.291	5.59	1	.018	.50	[.28; .89]
Domain	-1.36	.407	11.21	1	.001	.26	[.12; .57]
Severity	-.58	.392	2.15	1	.142	.56	[.26; 1.21]
Domain × Self-Theory	.69	.407	2.87	1	.090	1.99	[.90; 4.42]
Severity × Self-Theory	.35	.392	.80	1	.369	1.42	[.66; 3.07]
Domain × Severity	2.63	.577	20.71	1	<.001	13.84	[4.46; 42.89]
Self-Theory × Severity × Domain	-.63	.577	1.17	1	.279	.54	[.17; 1.66]
Constant	.56	.291	3.74	1	.053	1.76	

Effect of Perceived Reparability, Shame Severity and Shame Domain Conditions on Dichotomous Approach Choice

A binomial logistic regression was performed to ascertain the effect of self-theory, shame severity and shame domain conditions, as well as their two- and three-way interactions, on dichotomous approach choice. The overall logistic regression model was statistically significant, $\chi^2(7) = 37.86$, $p < .001$. The model explained 19.7% (Nagelkerke R^2) of the variance in approach choice and correctly classified 67.2% of cases. There was a

significant interaction between shame domain and severity conditions. This was such that in the moral shame condition, a lower percentage of participants chose to approach when shame was high (57%) compared to when shame was low (75%). In the performance shame condition, this effect was more pronounced: a lower percentage of participants chose to approach when shame was high (53%) compared to when shame was low (89%). See Table 30 for full details of the regression models.

Table 5.2

Logistic Regression Predicting Likelihood of Approach Choice Based on Shame Domain Condition, Shame Severity, Perceived Reparability and Their Two- and Three-Way Interactions

Predictor and block	*B*	*SE*	Wald	*df*	*p*	Odds Ratio	$CI_{95\%}$ for Odds Ratio
Block 1	$\chi^2(3) = 13.72$, $p = .003$, Nagelkerke $R^2 = .08$						
Reparability	.24	.093	6.39	1	.011	1.27	[1.05; 1.52]
Shame Severity	.46	.284	2.67	1	.102	1.59	[.91; 2.78]
Domain	.08	.272	.08	1	.784	1.08	[.63; 1.84]
Constant	-1.20	.483	6.18	1	.013	.30	
Block 2	$\chi^2(3) = 23.47$, $p < .001$, Nagelkerke $R^2 = .20$						
Reparability	.35	.165	4.55	1	.033	1.42	[1.03; 1.96]
Shame Severity	.41	1.10	.14	1	.709	1.51	[.17; 13.10]
Domain	-1.55	.971	2.54	1	.111	.21	[.03; 1.43]
Domain × Shame Severity	2.43	.611	15.81	1	<.001	11.56	[3.43; 37.62]
Domain × Reparability	.08	.203	.16	1	.687	1.09	[.73; 1.62]
Shame Severity × Reparability	-.23	.202	1.33	1	.249	.792	[.53; 1.18]
Constant	-1.09	.757	2.06	1	.151	.337	

Block 3	χ^2 (1) = .44, p = .507, Nagelkerke R^2 = .20						
Reparability	.41	.190	4.63	1	.031	1.51	[1.04; 2.18]
Shame Severity	1.02	1.43	.51	1	.477	2.77	[.17; 46.08]
Domain	-.97	1.29	.567	1	.451	.38	[.03; 4.74]
Domain × Shame Severity	1.14	2.03	.32	1	.574	3.13	[.06; 166.53]
Domain × Reparability	-.05	.284	.03	1	.858	.95	[.54; 1.66]
Shame Severity × Reparability	-.35	.274	1.67	1	.196	.70	[.41; 1.20]
Reparability × Shame Severity × Domain	.27	.405	.44	1	.507	1.31	[.59; 2.90]
Constant	-1.33	.856	2.42	1	.120	.26	

Appendix D: Study 2.4 Recall Task

Moral Condition

In the space provided below, please recall an example from your life of a time you have committed an interpersonal wrongdoing. That is, after you have hurt, offended or done wrong by another person. Please be assured that any information you provide is anonymous.

Performance Condition

In the space provided below, please recall an example from your life of a time you have committed a personal failure. That is, after you have failed to perform well. Please be assured that any information you provide is anonymous.

Appendix E: Study 2.4 Binomial Logistic Regression Results

Moderating Effect of Entity Beliefs on Relationship Between Shame and Dichotomous Approach Choice.

A binomial logistic regression was performed to ascertain the effect of self-theory, shame severity and shame domain conditions, as well as their two- and three-way interactions, on dichotomous approach choice. The overall logistic regression model was not significant, $\chi^2(7) = 11.79$, $p = .108$, Nagelkerke $R^2 = .08$. See Table 31 for full details of the regression models.

Table 5.3

Logistic Regression Predicting Likelihood of Approach Choice Based on Shame Domain Condition, Shame Severity, Entity Beliefs and Their Two- and Three-Way Interactions

Predictor and block	*B*	*SE*	Wald	*df*	*p*	Odds Ratio	$CI_{95\%}$ for Odds Ratio
Block 1	$\chi^2(3) = 5.56$, $p = .135$, Nagelkerke $R^2 = .04$						
Shame	.28	.127	4.73	1	.030	1.32	[1.03, 1.69]
Entity Beliefs	-.05	.084	.319	1	.572	.95	[.91, 1.12]
Domain	-.03	.292	.011	1	.915	.97	[.54, 1.72]
Constant	-.57	.593	.921	1	.337	.57	
Block 2	$\chi^2(3) = 4.72$, $p = .193$, Nagelkerke $R^2 = .07$						
Shame	.10	.323	.10	1	.756	1.11	[.59, 2.01]
Entity Beliefs	-.23	.269	.75	1	.387	.79	[.47, 1.34]
Domain	1.91	1.212	2.47	1	.116	6.73	[.63, 72.45]
Entity Beliefs × Shame	.09	.072	1.60	1	.206	1.10	[.95, 1.26]
Domain × Shame	-.30	.264	1.26	1	.261	.74	[.44, 1.25]
Entity Beliefs × Domain	-.26	.174	2.21	1	.138	.77	[.55, 1.09]
Constant	-.36	1.266	.08	1	.775	.70	

Block 3			$\chi^2(1) = 1.50$, $p = .220$, Nagelkerke $R^2 = .08$				
Shame	-.18	.392	.199	1	.656	.84	[.39, 1.81]
Entity Beliefs	-.49	.348	1.98	1	.160	.61	[.31, 1.21]
Domain	-.39	2.215	.03	1	.860	.68	[.01, 52.03]
Entity Beliefs × Shame	.17	.097	2.95	1	.086	1.18	[.98, 1.43]
Domain × Shame	.35	.589	.35	1	.552	1.42	[.45, 4.50]
Entity Beliefs × Domain	.36	.535	.46	1	.497	1.44	[.50, 4.10]
Entity Beliefs × Shame × Domain	-.18	.146	1.49	1	.222	.84	[.63, 1.11]
Constant	.61	1.490	.17	1	.684	1.83	

Moderating Effect of Reparability on Relationship Between Shame and Dichotomous Approach Choice

A binomial logistic regression was performed to ascertain the effect of perceived reparability, shame severity and shame domain conditions, as well as their two- and three-way interactions, on dichotomous approach choice. The overall logistic regression model was not significant, $\chi^2(7) = 10.09$, $p = .184$, Nagelkerke $R^2 = .07$. See Table 32 for full details of the regression models. The only significant effect was the interaction between perceived reparability and domain. This was such that in the moral shame condition, when perceived reparability was high, a lower percentage of participants chose to approach (58%) compared to when perceived reparability was low (62%). Whereas in the performance shame condition, a similar percentage of participants chose to approach when perceived reparability was high (56%) and low (58%).

Table 5.4

Logistic Regression Predicting Likelihood of Approach Choice Based on Shame, Perceived Reparability, Shame Domain Condition and Their Two- and Three-Way Interactions.

Predictor and block	*B*	*SE*	Wald	*df*	*p*	Odds Ratio	$CI_{95\%}$ for Odds Ratio
Block 1	$\chi^2(3) = 5.85$, $p = .119$, Nagelkerke $R^2 = .04$						
Shame	.32	.137	5.56	1	.018	1.38	[1.06; 1.80]
Perceived Reparability	.07	.114	.37	1	.542	1.07	[1.07; 1.34]
Domain	.00	.290	.00	1	.994	1.00	[1.00; 1.76]
Constant	-1.16	.736	2.47	1	.116	.32	
Block 2	$\chi^2(3) = 3.51$, $p = .154$, Nagelkerke $R^2 = .06$						
Shame	.10	.339	.09	1	.760	1.11	[.57, 2.15]
Perceived Reparability	-.34	.314	1.17	1	.280	.71	[.39; 1.32]
Domain	-.58	1.476	.15	1	.695	.56	[.03; 10.11]
Reparability × Shame	.08	.084	.94	1	.332	.109	[.92; 1.28]
Shame × Domain	-.10	.279	.14	1	.710	.90	[.52; 1.56]
Perceived Reparability × Domain	.28	.234	1.46	1	.227	1.33	[.84; 2.10]
Constant	.08	1.35	.00	1	.956	1.01	
Block 3	$\chi^2(1) = .72$, $p = .395$, Nagelkerke $R^2 = .07$						
Shame	-.09	.411	.05	1	.823	.91	[.41; 2.04]
Perceived Reparability	-.53	.396	1.79	1	.182	.59	[.27; 1.28]
Domain	-2.33	2.547	.84	1	.361	.10	[.00; 14.36]
Reparability × Shame	.14	.111	1.59	1	.208	1.15	[.93; 1.43]
Shame × Domain	.40	.654	.37	1	.544	1.49	[.41; 5.35]
Perceived Reparability × Domain	.77	.628	1.51	1	.219	2.17	[.63; 7.41]

Perceived Reparability × Shame × Domain	-.15	.175	.71	1	.398	.86	[.61; 1.22]
Constant	.73	1.564	.22	1	.640	2.08	

Appendix F: Study 3.1 Social Identity Selection Instructions

"We all have various aspects of our identity and how we think about ourselves. Some of these are related to groups, such as gender, race/ethnicity, religion, politics, nationality, sports teams, work, social/academic clubs, families, friends, and so forth. Others are related to roles, such as student, sibling, parent, employee, friend, significant other, club or team member, and so on. For example, Alex is a friend, sister, Australian, psychology major, member of the student association, netballer, and works at Foodland. Think about the aspects of your identity (e.g., groups or roles) that are **an important part of who you are as a person** and list them in the text boxes provided. There are six text boxes provided, please put one aspect in each text box. Stop when you have filled all six, or when you feel like you are straining to list aspects."

Appendix G: Study 3.1 Identity Conflict Explanation

“Sometimes, while we try to fulfil the values, responsibilities, or expectations associated with one of our groups or roles, doing so may make it difficult or impossible to also fulfil the values, responsibilities, or expectations associated with a **different** group or role. A person who identifies as a "lawyer" as well as a "parent", for example, may recall a time when fulfilling the expectations associated with their lawyer role (e.g., working late) conflicted with the responsibilities associated with their parenting role (e.g., picking their child up from school). As another example, a person who identities as a "student" as well as a "musician" may recall a time when meeting their university expectations (e.g., handing up an assignment on time) conflicted with their musical aspirations (e.g., spending time playing music). Conflicts can exist because membership in one group or role always takes up so much time and energy that it makes it hard to fulfil the responsibilities of the other group or role (e.g., a person who identifies as a "traveller" as well as a "worker", who cannot find time for travel because of their work commitments). It could also be because the two groups or roles always expect conflicting behaviours (e.g., a person who identifies as a student as well as a footballer, who wants to join their classmates on a pub-crawl but is expected to abstain from drinking because of their sport commitments). Think back to the aspects of the identities that you listed. Can you think of a circumstance where two or more aspects of your identities (e.g., groups or roles) have conflicted?”

Appendix H: Study 3.1 Cronbach Alpha's for Management Strategy Scale

Table 5.6

Management Strategy Scale Sub-Scales Cronbach's Alpha

Scale	Items	Cronbach's alpha
Repair	I tried to compensate I tried to make amends for what I could not do I apologised [to group/role A I apologised [to group/role B]	.580
Approach	I try to get in contact with them [with group/role A] I try to get in contact with them [with group/role B]	.583
Avoidance	Avoid the situation avoid contact with them [group/role A] avoid contact with them [group/role B],	.449
Seeking social support	I look for those with similar experiences [in group A] I look for those with similar experiences [in group B]	.697
Compartmentalisation	I chose to focus on one group/role over the other I just focused on what I had to do then and there I tried to only think about one of the groups/roles at a time	.194
Acceptance	I learned to live with it I reminded myself I could not do everything at once	.292

Appendix I: Study 3.1 Repair, Avoidance and Change Self Scales

Table 5.7

List of Items in Repair, Avoidance and Change Self Scales (Lickel et al., 2014)

Scale	Items
Repair	I felt like I should apologise for what happened
	I felt like I should do something after the vent to make it better
	I tried to do something after the event to make it better
Avoid	I wanted to be completely unassociated with the event
	At the time, I remember wishing that I could hide or remove my association to what happened
	I felt like I wanted to disappear from the situation
	I wanted to distance myself as much as possible from the event
Change Self	I felt the urge to be a better person
	I felt the need to change myself after the event
	I felt I should change certain aspects of my personality so that this wouldn't happen again
	I felt that there are things about myself that I need to change

Appendix J: Study 4.1 Identity Conflict Explanation

Sometimes, while we try to fulfil the values, responsibilities, or desires associated with one of our groups or roles, doing so may make it impossible to also fulfil the values, responsibilities, or desires associated with a different group or role. A person who is a worker as well as a parent, for example, may recall a time when they were unable to fulfil the expectations associated with their work role (e.g., working late) because of the expectations associated with their parenting role (e.g., picking children up from school) - or vice versa.

Conflicts can exist because membership in one group or role always takes up so much time and energy that it makes it impossible to fulfil the responsibilities of the other group or role. It could also be because the two groups or roles always expect different behaviours.

Have there been times when you have felt as if there is a conflict between your work and parenting roles? That is, have there been times that you've been unable to meet expectations or fulfil your desires associated with being a parent/guardian because of the expectations or desires associated with your work role, or unable to meet expectations or fulfil your desires associated with your work role because of the expectations of being a parent/guardian?

Appendix K: Study 4.1 Social Identity Conflict Recall Instructions

Please describe a recent, specific example of an instance where you were unable to fulfil your responsibilities/desires/expectations associated with your work role because of being a parent/guardian **or** when you were unable to fulfil your responsibilities/desires/expectations associated with your parent/guardian role because of your work.

What happened? When did it happen? Where were you? In what way were you unable to fulfil your responsibilities/desires/expectations?

Appendix L: Study 4.1 Bipolar Approach Scale

When people face problems, they sometimes approach the problem head-on (e.g., develop strategies, seek support) while at other times they may avoid the problem (e.g., try to forget about the problem, move on to other tasks). Neither option is necessarily better than the other. Sometimes approaching problems is helpful (e.g., when it leads to a resolution), and sometimes it is not (e.g., when it uses up energy and time and a resolution isn't found). Sometimes avoiding a problem is helpful (e.g., when it may resolve itself in time) and sometimes it's not (e.g., when the problem then becomes worse).

How did you respond to the situation you described on the previous page when you are unable to meet the expectations, desires or responsibilities associated with either your work role or your parenting role?