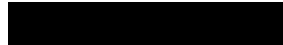


When we do wrong: Can psychological flexibility transform transgression-specific guilt and shame into genuine self-forgiveness?



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Abstract

Self-forgiveness has the potential to ameliorate distressing effects of guilt and shame elicited by transgressing personally held standards. Yet, the practice of self-forgiveness is equally associated with beneficial, harmful and self-limiting outcomes. Recent conceptualisations of self-forgiveness bear striking similarities to psychological flexibility, the central mechanism of change in the widely-used mainstream therapeutic approach that is Acceptance Commitment Therapy (ACT). Given the paucity of literature examining psychological flexibility and self-forgiveness concurrently, this study draws on ACT theory and literature, to test hypotheses on whether psychological flexibility may facilitate authentic self-forgiveness. A correlational design was employed. A cross-sectional sample of $N=132$ individuals (55.3% female), aged between 18 and 77 years ($M = 34.48$, $SD = 13.03$) was recruited from college undergraduates and the wider population. After briefly describing a specific wrongdoing, participants answered demographic and offence-specific questions in addition to completing self-report measures relating to guilt, shame, psychological flexibility and self-forgiveness. Main study variables demonstrated associations as expected. Mediation analyses conducted with two predictors, guilt and shame, and self-forgiveness as the outcome revealed psychological flexibility significantly mediated the relation between shame and shame-infused guilt on self-forgiveness. Outcomes with respect to shame-free guilt, however were non-significant. Post-hoc analyses highlight the potential importance of the values/committed action sub-process of psychological flexibility when targeting the effects of shame and guilt through self-forgiveness. Implications, limitations and future directions are discussed.

Keywords: Self-forgiveness, genuine self-forgiveness, guilt, shame, psychological flexibility, Acceptance Commitment Therapy, ACT, mediation, acceptance, values.

Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any University, and, to the best of my knowledge, this thesis contains no materials previously published except where due reference is made. I give consent to this copy of my thesis, when deposited in the University Library, being available for loan and photocopying.

Signature



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In memory of my father – your love and pursuit of knowledge led you to its ultimate echelons. You have and will always continue to be my inspiration.

When we do wrong: Can psychological flexibility help transform transgression-specific guilt and shame into authentic self-forgiveness?

Human peccadilloes are ubiquitous. Whether inadvertently or by design, we all do wrong. Transgressing personally held standards draws self-condemnation and elicits distressing self-conscious emotions such as guilt and shame (Tangney, 1991; Tangney, Stuewig, & Mashek, 2007). Self-forgiveness comprises one way of coping with the emotional (di)stress caused by guilt and shame (Strelan & Covic, 2006). Whilst self-forgiveness may promote personal growth and resilience (Romero et al., 2006), its practice is *also* associated with maladaptive outcomes (Davis et al., 2015; Wohl & McLaughlin, 2014).

Recent conceptualisations of authentic self-forgiveness call for the embrace of transgression-specific sequelae, *whilst* preserving self-acceptance and empathy, *and* engaging in reparative behaviour that (re)aligns with transgressed values (Hall & Fincham, 2005; Wenzel, Woodyatt, & Hedrick, 2012). This description bears striking similarity to psychological flexibility, the central mechanism of change in the widely-used mainstream therapeutic approach that is Acceptance Commitment Therapy (ACT; Hayes, Levin, Plumb-Villardaga, Villatte, & Pistorello, 2013; Hayes, Luoma, Bond, Masuda, & Lillis, 2006).

Despite substantial definitional, conceptual and theoretical overlap, self-forgiveness and psychological flexibility have rarely been empirically examined together. The relation between these two constructs is especially pertinent given *acceptance*, a sub-process of psychological flexibility (Hayes et al., 2006), was found to mediate the link between guilt/shame on self-forgiveness, albeit in a clinical sample (McGaffin, Lyons, & Deane, 2013).

In integrating self-forgiveness and ACT research domains, this study aims to refine, extend and add to self-forgiveness literature by testing the proposition that psychological flexibility guides the path from offence-related distress to authentic self-forgiveness. More specifically, this study will test the hypothesis that psychological flexibility mediates the link between transgression-specific emotions of guilt and shame respectively on self-forgiveness. Figure 1 diagrammatically illustrates this proposition. To this end, mediated regression models will be tested to elucidate the role assumed by psychological flexibility in the link between guilt and shame and self-forgiveness. Ensuing sections will define main study variables, review complexities surrounding self-forgiveness and provide a cogent rationale and argument for psychological flexibility as a facilitator of genuine self-forgiveness.

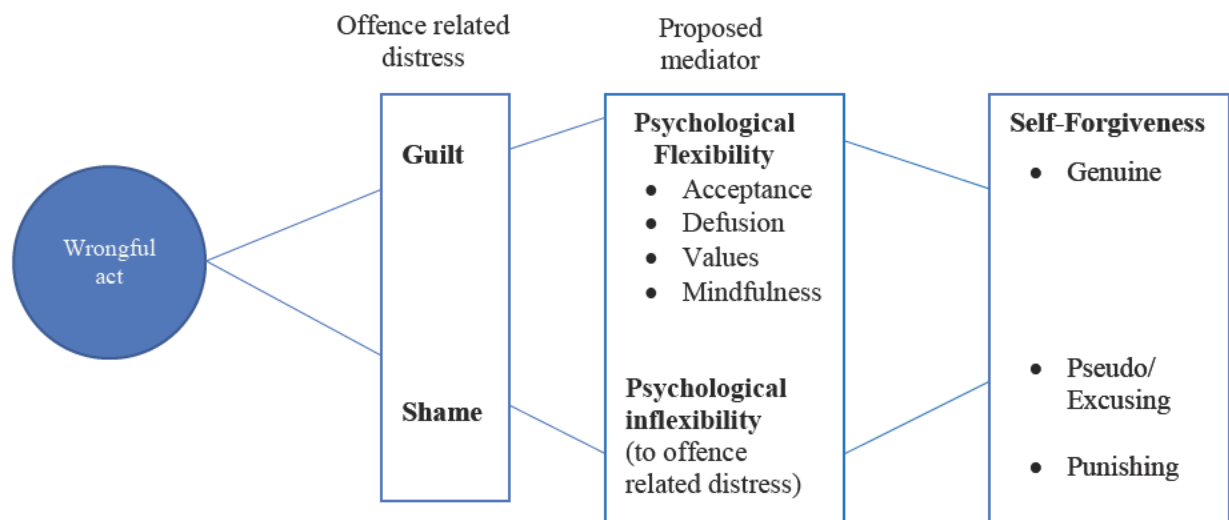


Figure 1. Diagrammatic illustration of study variables.

Self-Forgiveness

Defining self-forgiveness. Despite nearly three decades of research, no universally agreed upon definition for self-forgiveness exists. Early attempts at definition incorporated themes of compassion and benevolence toward self. For example, Enright and Group (1996), defined self-forgiveness as “a willingness to abandon self-resentment while fostering compassion,

generosity, and love toward oneself,” (pg 115). In their seminal work, Hall & Fincham (2005) described self-forgiveness in terms of a decreasing motivation to avoid offence-related stimuli or retaliate against the self, and increasing motivation to “act benevolently toward the self,” (p. 622). However, self-forgiveness was thought to embody more than acting kindly toward self. Dillon (2001), expounded the idea of self-forgiveness as an “intentional transformation” in attitude toward self, as a way to demonstrate self-respect and self-acceptance (p 54).

Self-forgiveness has more recently been conceptualised as a complex cognitive, emotional and behavioural coping response to the stress of a wrongdoing (Strelan & Covic, 2006). To this end, literature has identified several key characteristics of genuine self-forgiveness. First, the process begins with a specific transgression and/or moral failure (Hall & Fincham, 2005). Second, the offender must acknowledge their wrongdoing (Wenzel et al., 2012). Third, self-forgiveness involves making peace with both the wrongdoing *and* the (flawed) self who committed/omitted the act. Specifically, this entails both decreased avoidance of negative transgression-specific stimuli (Hall & Fincham, 2008) and transformation of the (flawed) self, in the form of restored positive affect (Enright & Group, 1996; Griffin, 2011; Hall & Fincham, 2005). Fourth, given that a positive self-state may equally be induced by self-serving strategies such as excusing or minimising, restored self-regard must be accompanied by a reaffirmation of and recommitment to transgressed values (Woodyatt & Wenzel, 2013). Fifth, self-forgiveness is not instantaneous but involves an effortful process over time (Fisher & Exline, 2006; Hall & Fincham, 2008; Wenzel et al., 2012).

Self-forgiveness literature has also identified alternate responses to cope with the stress of a wrongdoing. These include *self-punishment*; an attempt to restore justice and equity by blaming and punishing the self for the failure or misconduct (see Exline, Root, Yadavalli, Martin, &

Fisher, 2011; Wenzel et al., 2012) and *pseudo self-forgiveness*; an attempt to shortcut the self-forgiveness process by abrogating responsibility for wrongdoing or otherwise excusing self of blame (Dillon, 2001; Exline et al., 2011; Hall & Fincham, 2005).

In sum, in the wake of a wrongdoing, one is faced with three possible responses. Authentic or genuine self-forgiveness necessitates the embrace of painful transgression-specific sequelae, *whilst* preserving self-acceptance, *and* engaging in (reparative) behaviour that (re)aligns with transgressed values, which over time results in a restoration of a positive sense of self. Self-punishing and pseudo self-forgiveness, by contrast, result from either assuming too much (self-punishing) or too little (excusing) responsibility and/or failing to acknowledge responsibility (pseudo) for wrongdoing altogether.

Why self-forgiveness? Identifying gaps in the literature. Where forgiveness of others was lauded as a panacea to life's vicissitudes and eagerly pursued by paramours of psychological research (see Fehr, Gelfand, & Nag, 2010), self-forgiveness was largely overlooked, earning it the unenviable moniker, "step child of forgiveness research" (Hall & Fincham, 2005 p. 621). Yet, self-*un*forgiveness exacts a heavy toll, as corroborated by lower mental, relational and physiological health outcomes, including decreased life satisfaction (Macaskill, 2012; Maltby, Macaskill, & Day, 2001). Scholars have uncovered many facets of self-forgiveness, including its manifold benefits (Davis et al., 2015; Peterson et al., 2016), shortcomings and limitations (Wohl & McLaughlin, 2014; Wohl & Thompson, 2011), personality and individual difference aspects (Strelan, 2007), processes (Hall & Fincham, 2008), characteristics (Wenzel et al., 2012) and even ethics on *whether* one should self-forgive (Vitz & Meade, 2011). Consequently, an assortment of stage (Ingersoll-Dayton, 2005), process (Hall & Fincham, 2005), therapeutic (Cornish & Wade, 2015) and self-help models have been proposed to explain its process. Whilst all models

incorporate offence-specific guilt and shame, they differ in philosophical orientation (e.g. religious), theoretical frameworks and empirical validation (see Strelan & Covic, 2006 for an overview). Moreover, no model has as yet been able to account for paradoxical outcomes associated with the practice of self-forgiveness.

Additionally, the self-forgiveness process differs from that of interpersonal forgiveness (Hall & Fincham, 2005, 2008; Thompson et al., 2005). Where the latter only requires forgiveness of a wrongful act, self-forgiveness requires *both* forgiving the wrongful act *and* acceptance of the (flawed) self (Hall & Fincham, 2005). Accordingly, self-forgiveness invokes coping mechanisms on two levels; externally, through conciliatory behaviour (e.g. apology/restitution) and intrapsychically, through emotion (e.g. guilt/shame) regulation (McConnell, 2015). In other words, self-forgiveness requires reconciliation with self, (i.e. resolution of offence related distress) *and* is conditional on future conduct, usually necessitating some form of behavioural response (e.g. restitution or relational repair). This conceptualisation of self-forgiveness fits perfectly within the hexaflex model of psychological flexibility (Hayes et al., 2013), which will be explicated shortly, yet these two constructs continue to be researched independently. Furthermore, whilst interpersonal forgiveness in most circumstances results in beneficial outcomes for the forgiver (McCullough, 2000), self-forgiveness remains somewhat of a curiosity.

The curious case of self-forgiveness. Whilst forgiving others for life's vicissitudes ostensibly attributes noble characteristics such as courage, strength, even virtue and piety (Rye, Wade, Fleri, & Kidwell, 2013), self-forgiveness has been cast the "self-indulgent cheat" Dillon (2001, p. 53), an attempt to abrogate responsibility for wrongful actions. Epitomising a veritable Machiavellian Hyde cloaked with Jekyllian nobility, this adroit, self-serving and manipulative characteristic has been identified as pseudo self-forgiveness (Dillon, 2001; Hall & Fincham,

2005). The practice of self-forgiveness has *additionally* been implicated in promoting and perpetuating psychopathology and maladaptive coping behaviours (see Wohl & McLaughlin, 2014 for a summary). Specifically, self-forgivers are more likely to apportion blame and justify their actions (Zechmeister & Romero, 2002), engage in excusing/avoidance behaviour (Wenzel et al., 2012) and identify as narcissists (Strelan, 2007). Moreover, increased propensity to self-forgive proves a barrier to behavioural change (Wohl & Thompson, 2011).

Even so, a plethora of empirical evidence links the practice of self-forgiveness with multifarious mental, physical and physiological health benefits (see Davis et al., 2015 for a meta-analysis; Peterson et al., 2016). For example, self-forgivers report greater happiness, life satisfaction, balanced affect and gratefulness (Macaskill, 2012). Self-forgiveness is also associated with resilience and coping (Romero et al., 2006), engendering prosocial outcomes (Fisher & Exline, 2006; Woodyatt & Wenzel, 2013), as well as pro-relational characteristics (Pelucchi, Paleari, Regalia, & Fincham, 2013).

In sum, research indicates self-forgiveness facilitates *both* maladaptive and adaptive outcomes. One reason for this may relate to how self-forgiveness has been operationalised.

Measuring self-forgiveness. Early psychometric self-forgiveness measures focused exclusively on positive self-regard as the inevitable end-state of the self-forgiveness process (Fisher & Exline, 2006; Wenzel et al., 2012). However, positive self-states may equally be induced by narcissistic, self-serving strategies of excusing or minimising blame (Strelan, 2007; Wenzel et al., 2012). A consequence of end-state focus is conflation with pseudo self-forgiveness (Wenzel et al., 2012; Woodyatt & Wenzel, 2013). For example, many researchers investigating self-forgiveness utilised the self-forgiveness subscale of the Heartland Forgiveness Scale (HFS; Thompson et al., 2005). Yet, Fisher and Exline (2006) found this measure failed to

predict repentance, acceptance of responsibility or behaviour change.

Increasingly, researchers have shifted attention away from end-state and onto the self-forgiveness process itself. To this end, new measures have been developed. The Differentiated Process Scales of Self-forgiveness (DPSS; Woodyatt & Wenzel, 2013), is a state self-forgiveness measure comprising three subscales, (i.e. genuine self-forgiveness, self-punishing and pseudo self-forgiveness), which discriminates between the three possible responses to a wrongdoing. Each of these responses may more particularly be conceptualised as motivated by moral emotions, in particular guilt and shame, the affective states elicited following a wrongdoing.

The moral emotions of guilt and shame

Guilt and shame are affective states which link one's moral standards to moral or expected behaviour and belong to the family of self-conscious emotions (see Robins & Schriber, 2009 for an overview). Akin to the rudder that steers the "ship" of self on the "sea" of one's social environment, guilt and shame imbue capacity for self-reflection and review of interpersonal interactions and trigger motivation to (re)act accordingly (Tangney, 1991; Tangney et al., 2007). In the context of self-forgiveness, guilt and shame are elicited by transgressions of personal and/or societal values.

Defining guilt and shame. Whilst the terms 'guilt' and 'shame' are often used interchangeably (Tangney & Dearing, 2002), they are distinct and for the most part, distinguishable experiences (Lewis, 1971). Although other distinguishing factors (e.g. public/private) exist (see Teroni & Deonna, 2008 for an overview), the current and most commonly accepted mode of discerning between guilt and shame is based on the self/behaviour dichotomy proposed by Lewis (1971). According to this criterion, the focus of shame is the self, whereas the focus of guilt is the behaviour. Thus, definitions of guilt and shame encapsulate this

self/behaviour distinction. For example, guilt has been defined as the “dysphoric feeling associated with the recognition that one has violated a personally relevant moral or social standard” (Kugler & Jones, 1992, p.318). Thus, guilt is activated by personal mistakes or other undesirable behaviour within an interpersonal setting (Baumeister, Stillwell, & Heatherton, 1994), which in turn prompts pro-social behaviour (Cryder, Springer, & Morewedge, 2012) to repair the breach.

Shame, by contrast, has been defined as a “painful, ugly feeling that involves a global negative evaluation of the entire self.” (Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996 p 806). Shame has also been defined as *intense feelings of badness* or unworthiness, resulting from not living up to (internalised) moral standards along with perceptions of *self as flawed or inadequate* by a real (or imagined) observer (Gilbert, 1997; Tangney, 1995). Thus, shame’s focus is on bad/flawed self (“*I am bad*”) as opposed to bad behaviour (“*I did a bad thing*”).

To summarise, guilt and shame are moral emotions elicited as a consequence of wrongdoing. Despite similarities involving negative self-evaluation, guilt and shame are distinguishable in that guilt elicits preoccupation with the bad *act* whereas shame elicits preoccupation with the bad *self*. This distinction accounts for differences in their respective experience, motivation and function (Tangney et al., 2007).

Adaptive and maladaptive outcomes associated with guilt and shame. Guilt and shame may be conceptualised as proneness (trait) or as emotions in the moment (state). Where state guilt refers to how one is currently feeling, trait guilt refers to propensity or how one usually feels (Tangney & Dearing, 2002).

Guilt with its preoccupation with wrongful behaviour is attendant with empathy, responsibility, reparative behaviours and prosocial outcomes (Cryder et al., 2012; Fisher & Exline, 2006; Tangney, 1991). However, guilt is *equally* associated with maladaptive outcomes, for example when excessive responsibility is assumed (Kim, Thibodeau, & Jorgensen, 2011) or where reparative behaviour is not possible (Nelissen & Zeelenberg, 2009). To this end, guilt is complex and multifaceted and remains shrouded in empirical inconsistencies (Tilghman-Osborne, Cole, & Felton, 2010; Tilghman-Osborne, Cole, Felton, & Ciesla, 2008).

In contrast, shame, with its preoccupation with 'bad' self, has been linked with increased personal distress (Ranganadhan & Todorov, 2010), hiding and corresponding defensive behaviours such as anger, externalisation of blame and avoidance (Tangney, 1991; Tangney & Dearing, 2002; Tangney et al., 2007). Given it is easier to address bad behaviour than flawed self, the experience of shame is more threatening, distressing and destructive, with associated maladaptive consequences (Gilbert, 1997; Gilbert & Andrews, 1998). However, shame may also possess adaptive qualities, for example, where reparative action is possible (see Leach & Cidam, 2015).

To summarise, whereas shame is associated with mostly maladaptive consequences, guilt, due to its dualistic nature, may promote *both* adaptive and maladaptive outcomes and accordingly, remains an empirical paradox. Empirical perplexities with respect to guilt and shame may in part be ascribable to methodological and measurement issues.

Guilt and shame research: Methodological and measurement issues. Methodological and measurement concerns surround the empirical study of guilt and shame. First, guilt and shame share many similarities (see Tangney & Dearing, 2002), resulting in correlation and covariance between the two variables. Furthermore, literature demonstrates the maladaptive

effects of guilt are largely due to the effect of attendant shame (Tangney, 1996). Pure guilt (i.e. shame-free guilt), by contrast, has been associated with adaptive qualities (Paulhus, Robins, Trzesniewski, & Tracy, 2004; Tignor & Colvin, 2017). This characteristic has led some researchers, (Tangney, 1996), to advocate for the routine use of partial correlations when undertaking analyses with respect to guilt and shame.

Second, guilt and shame are internal affective states which are subjective and invisible (i.e. without discernible outward expression). This feature creates difficulties with measurement. Generally, measures of guilt and shame comprise: a) those which assess emotional states (i.e. feelings of guilt and shame in the moment) and b) those which assess dispositional traits (i.e. proneness to guilt/shame) (Tangney, 1996). Of the two, dispositional measures are more prevalently used in research. However, dispositional measures (eg, scenario-based or checklist) are based on hypothetical situations (e.g. Tangney, Wagner, & Gramzow, 1989) and rely on conjecture rather than actual experience of real-world transgressions. Furthermore, adaptive outcomes attributable to guilt are associated with use of scenario-based (guilt proneness) measures, which may be measuring motivation to make amends rather than guilt (Giner-Sorolla, Piazza, & Espinosa, 2011).

This general pattern of adaptive and maladaptive outcomes associated with guilt and shame also mirrors the self-forgiveness process.

Guilt, shame and self-forgiveness. Guilt and shame are synonymous with every model of self-forgiveness and are central to its process (e.g. Hall & Fincham, 2005). In the context of self-forgiveness, guilt has been hailed an aid (Hall & Fincham, 2005), with some scholars even advocating for it as a prerequisite (Fisher & Exline, 2010; Wenzel et al., 2012). However, empirical investigations examining the relation between guilt and self-forgiveness has yielded

equivocal results, with findings of positive, (McGaffin et al., 2013), negative (Hall & Fincham, 2008; Strelan, 2007) and even no relation (Macaskill, 2012). In contrast, shame and personal distress are consistently regarded as barriers to self-forgiveness (Fisher & Exline, 2010; Macaskill, 2012; Ranganadhan & Todorov, 2010). More recently, Griffin and colleagues (2016), found guilt positively associated with self-forgiving and self-punishing, and negatively associated with excusing responses, whereas shame was associated negatively with self-forgiving and positively with both punishing and excusing behaviours. Thus, guilt and shame explain variability in self-forgiveness. Such variability may also be explained by psychological flexibility.

Psychological Flexibility

Definition and conceptualisation. Psychological flexibility is the central mechanism of change in the ACT model (Ciarrochi, Bilich, & Godsell, 2010) and is defined as the ability to be fully present in the moment and depending on the situation, either change or persist in behaviour that aligns with freely chosen values (Hayes et al., 2013; Hayes et al., 2006). Accordingly, psychological flexibility is a dynamic process, which increases one's capacity to hold (distressing) inner experiences lightly and without undue defence, whilst engaging in action/behaviour guided by long-term values rather than short-term urges and impulses. To this end, psychological flexibility incorporates six interrelated processes, specifically: a) mindfulness (contact with the present moment), b) defusion (deliteralisation of thoughts), c) acceptance (nonjudgmental allowance of inner experience), d) self as context (observing/transcendent self), e) values, and f) committed action. In contrast, its antithesis, psychological *inflexibility*, is largely predicated by experiential avoidance (an unwillingness to contact aversive stimuli) and cognitive fusion (entanglement with verbal rules and evaluation, taking thoughts literally and

remaining in automatic problem-solving mode even where this is unworkable), with concomitant repertoire-narrowing, defensive responses (Chawla & Ostafin, 2007; Hayes et al., 2006). In short, psychological flexibility means being willing to embrace whatever shows up in the (ever-changing, internal) landscape of present moment experience by a) noticing the struggle, b) intentionally returning to the present and c) doing what is necessary to live a rich and meaningful life.

Theoretical integration: Psychological flexibility and self-forgiveness. Although little is known about empirical relations between psychological flexibility and self-forgiveness, evidence for their link is patent. First, Enright et al. (1996) posited genuine self-forgiveness as originating “from a *position of guilt, remorse, and shame.....[leading] directly into pain before it leads us out of pain.*” (p. 117, italics added). This pivot *toward* pain more particularly describes *acceptance*, a sub-process of psychological flexibility. Moreover, descriptions of pseudo self-forgiveness as a “path of least resistance” (Hall & Fincham, 2005) and an effort to escape psychological pain (Enright & Group, 1996), correspond with experiential avoidance, the counterpart of acceptance and a component of psychological inflexibility (Hayes et al., 2006).

Second, according to Wohl and Mclaughlin, (2014) the primary mechanism by which self-forgiveness affects wellbeing is through the attenuation of negative emotions such as shame, guilt and anger. This mechanism is *equally* responsible for perpetuating maladaptive and other undesirable behaviours. In other words, feeling *better* (i.e. less negative emotions and correspondingly, increased positive regard) is associated with *both* adaptive and maladaptive outcomes, suggesting perhaps it is not the practice of self-forgiveness that is flawed (c.f. Vitz & Meade, 2011) but rather how it is utilised (i.e. what it is in service of) that is pertinent. This focus on function and context of (self-forgiving) behaviour, more particularly embodies the values and

committed action processes of psychological flexibility (see Dahl, 2015 for an overview on ACT values).

In sum, genuine self-forgiveness can be described as the end product of psychological flexibility, as facilitated *by* acceptance of the painful emotions (and associated cognitions) of guilt and shame, *in service of* values *through* committed action (i.e. doing what matters to make life work). Correspondingly, the alternate responses of pseudo self-forgiveness and self-punishing can be similarly conceptualised as the consequence of psychological *inflexibility*.

Self-forgiveness through the lens of psychological flexibility. Woodyatt and colleagues (2013) described self-punishing and pseudo self-forgiveness as artefacts of defence mechanisms (i.e. displacement and suppression) to reduce internal emotional distress. However, defensive processing of a transgression, although beneficial to the offender in the short term, comes at the expense of interpersonal restoration and does not actually resolve the threat to self (Fisher & Exline, 2010; Woodyatt & Wenzel, 2014). They further posited only genuine self-forgiveness would result in *both* intra and interpersonal restoration *and* engender prosocial behaviour. Thus, although the end result for both genuine and pseudo self-forgiveness is similar (i.e. feeling *better*), motivations and consequences differ.

Viewed through the lens of psychological flexibility, the disavowal of responsibility in pseudo self-forgiveness results from experiential avoidance of painful offence related sequelae (e.g. guilt/shame), whereas fusion or preoccupation with one's conceptual self as flawed/bad promotes either self-punishing or minimising/excusing behaviour (see also Fisher & Exline, 2010). In either case, outcomes are motivated by the immediate gain of resolving internal discomfort. Put simply, non-genuine self-forgiveness (i.e. self-punishing/pseudo) are merely attempts at experiential control (Chawla & Ostafin, 2007; Hayes et al., 2006), to distance oneself

from the unpleasant consequences of wrongdoing, which although may alleviate short-term discomfort, is in the long-term, physically, emotionally, relationally and psychologically costly (Fisher & Exline, 2010; Woodyatt & Wenzel, 2014). The rationale for viewing self-forgiveness through the lens of psychological flexibility has tentative empirical validation, with acceptance found to mediate the relation between both guilt and shame with self-forgiveness, albeit in a clinical population (McGaffin et al., 2013).

Thus, genuine and disingenuous (i.e. self-punishing and pseudo) self-forgiveness are distinguishable to the extent they embody psychological flexibility. More specifically, psychological flexibility aids true self-forgiveness by enabling one to a) mindfully (non-judgmentally) acknowledge wrongdoing, b) without automatically reacting to urges/impulses geared toward reducing or controlling unwanted, distressing experiences (emotional avoidance), and c) choose a response more consistent with (transgressed) values (committed action guided by values).

Measuring psychological flexibility. Psychological flexibility is typically measured using the Acceptance and Action Questionnaire (AAQ II; see Bond et al., 2011). This measure operationalises *both* psychological flexibility as an overall construct and acceptance as a sub-process within it. However, the AAQ-II is not a true measure of psychology flexibility *as it is defined*, i.e. a tendency to change or maintain behaviour according to what the situation demands (see Ciarrochi et al., 2010). Moreover, development of newer sub-process measures such as the Cognitive Fusion Questionnaire (Gillanders et al., 2014) and Valuing Questionnaire (Smout, Davies, Burns, & Christie, 2014) have been shown to account for additional variance beyond the AAQ-II. Additionally, concerns regarding construct validity of the AAQ-II (Wolgast, 2014) have spawned calls to estimate psychological flexibility as indices from these newer sub-process

measures (Fischer, Smout, & Delfabbro, 2016). Accordingly, for the purposes of this study psychological flexibility has been operationalised as an aggregate score of four sub-process measures, specifically, acceptance, defusion, mindfulness and values/committed action.

The current study – Aims and Hypotheses

To recapitulate, following a wrongdoing, self-conscious emotions of guilt and shame are elicited which in turn motivate behaviour. Both guilt and shame cause emotional distress, however empirical evidence suggests shame is more distressing, with resultant maladaptive consequences. The position with respect to guilt is less clear and is mired in empirical, methodological and measurement inconsistencies. Genuine self-forgiveness, self-punishing and pseudo-self-forgiveness comprise alternate ways of responding to transgression-specific distress. From the perspective of psychological flexibility, authentic self-forgiveness comprises both an emotional regulation component (effected through acceptance/defusion) and a behavioural component (effected through committed action/values).

Given the paucity of literature examining psychological flexibility and self-forgiveness, this study draws on ACT theory and literature, to test hypotheses on whether psychological flexibility may facilitate authentic self-forgiveness. Specifically, this study tests: a) relations between guilt and shame, psychological flexibility and self-forgiveness, b) a mediated regression model with respect to whether psychological flexibility mediates the relation between guilt/shame on self-forgiveness. The following hypotheses are tested:

Hypothesis 1: It is expected that self-forgiveness and psychological flexibility will be positively correlated with each other.

Hypothesis 2: It is expected that shame will correlate negatively with self-forgiveness. Given equivocal findings with respect to guilt and self-forgiveness, no specific hypothesis was posited.

Hypothesis 3: Psychological flexibility will mediate the relation between guilt and shame respectively on self-forgiveness. In particular, the following model was tested: guilt/shame → psychological flexibility → self-forgiveness.

METHOD

Ethics

The current study was approved by The University of Adelaide School of Psychology Human Research Ethics Subcommittee prior to commencement of data collection. Data collection occurred between May and July 2017. Participants undertook the study anonymously and were free to withdraw any time. To be eligible, participants had to be at least 18 years of age and willing to describe a specific wrongdoing they had committed. Informed consent was obtained from each participant prior to commencing the survey, with participants answering ‘yes’ to the consent question on the relevant page (see Appendix A).

Sample size estimation

As the investigated constructs were largely untested, the general rule of 10 – 15 participants per independent variable in multiple regression analyses was utilised to estimate sample size required (Field, 2009). Given six independent variables for the purposes of this study, a sample comprising 60 – 90 participants was required.

Participants

Participants comprised first year undergraduates recruited from a pool of Psychology undergraduate students who signed up for the study via the University of Adelaide SONA research participation system in exchange for course credit for their participation in the study. Additionally, participants were recruited from the larger community through CrowdFlower, an online crowd sourcing platform (see Buhrmester, Kwang, & Gosling, 2011). Both samples were

subsequently merged to produce a single dataset ($N = 167$). Individuals who were unwilling to disclose a specific wrongdoing or otherwise complete the survey ($n = 35$) were excluded leaving a final sample of $N = 132$, ($M_{age} = 34.48$ years, $SD = 13.01$ years, range = 18 - 77).

Study Design

The study comprised a cross-sectional, correlational design. Specifically, correlations between main study variables were examined and mediated regression models were tested in line with hypotheses.

Materials and Procedure

Participants were provided with a link to an online survey, which the researcher created using SurveyMonkey (<http://www.surveymonkey.com>). Following informed consent, participants anonymously completed self-report measures (see Appendix B).

Background variables. A number of variables, identified in prior literature as potentially relevant to self-forgiveness, were measured. These provided background and context to participants' reported transgressions and their responses thereto, in addition to inclusion for possible control purposes. Specifically, participants were asked to provide the following details regarding a specific wrongdoing:

Specific wrongdoing. A recall paradigm was utilised to personalise the survey and ensure participants were thinking about a specific wrongdoing incident when completing relevant measures. Participants were asked to recall and briefly (3 – 5 sentences) describe in a textbox a specific transgression whereby their actions/behaviour adversely impacted another person(s) and/or contravened a personal moral standard/value. These descriptions were not coded nor employed in further analyses.

Relationship to the victim. Participants indicated the nature of their relationship to the

transgressed person (e.g. relationship partner; family member; friend/acquaintance; work colleague; self or other).

Perceived Transgression Severity. This was measured using a three-item scale (Hall & Fincham, 2008). Participants provided details as to the severity and impact of their wrongdoing by rating how positively or negatively their behaviour affected the other person(s) involved, their relationship to others/self and themselves. Hall and Fincham (2008) found evidence to support the internal consistency and validity of the items via associations with self-forgiveness, guilt, and shame with $\alpha = .71$. In the present study, $\alpha = .76$.

Time elapsed since the incident. Participants reported the length of time that had elapsed since the transgression in a text box, which was subsequently approximated into days.

Demographic information. To control for demographic characteristics, participants provided details as to their age, gender, ethnicity (*dummy coded as 0/1; 1 = Caucasian/white and 0 = other*), religion (coded as 1=identifying with a religion, 0 = not identifying with a religion) and religiosity. Religiosity was assessed by a question assessing degree of religiousness ranging from “very religious to “not at all religious”.

Guilt and shame. The State Shame and Guilt Scale (Marschall, Sanftner, & Tangney, 1994) was used to assess participants’ degree of guilt (five items, $\alpha = .87$) and shame (five items, $\alpha = .91$) with respect to their disclosed transgressions. The shame subscale measures negative emotion directed at oneself (“I feel like I am a bad person”), and the guilt subscale measures negative emotion directed at one’s behaviour (“I feel bad about this thing I have done”). Participants rated items from 1 = *not feeling this way at all* to 5 = *feeling this way very strongly*. In the present study, $\alpha = .86$ for guilt and $\alpha = .91$ for shame.

Psychological flexibility. Psychological flexibility was estimated from an aggregate of the

following four indicators, such that high scores indicated high psychological flexibility. Overall alpha was .88.

Experiential Avoidance. Participants completed the seven-item Acceptance and Action Questionnaire-II (Bond et al., 2011), answered on a 1 (Never True) to 7 (Always True) point Likert scale. As the AAQ-II is a measure of experiential avoidance, it was reverse scored such that higher scores indicate higher levels of acceptance.

Cognitive Fusion. The Cognitive Fusion Questionnaire (CFQ; Gillanders et al., 2014) is a 7-item, seven-point Likert-type scale (7 = always; 1 = never true) that measures general cognitive fusion – i.e. the extent to which thoughts overly regulate and influence behaviour. Accordingly, the measure was reversed scored such that higher scores reflect higher degree of defusion (i.e. low fusion). Items such as “I struggle with my thoughts” are measured on a seven-point scale from one (“Never true”) to seven (“Always true”).

Values/Committed Action. Valuing Questionnaire (VQ; Smout et al., 2014) is a 10-item self-report measure of committed action which includes a Progress subscale (five items) and an Obstruct subscale (five items) to measure the extent to which participants perceived their transgression had prevented them from enacting their values in the past week. Whilst thinking about their transgression, participants completed items such as “I was proud about how I lived my life”, rated on a seven-point scale from 0 (“not at all true”) to 6 (“completely true”).

Mindfulness. The Mindfulness Attention Awareness Scale (MAAS; Brown & Ryan, 2003) is a 15-item trait questionnaire intended to measure the extent to which people fail to pay attention during tasks. Items such as “I find myself doing things without paying attention” are rated on a six-point scale from 1 (“almost always”) to 6 (“almost never”). The average rating across items was used as a measure of inattentiveness with higher scores indicating greater

attentiveness.

State self-forgiveness. The Differentiated Process Self-Forgiveness Scale (DPSS; Woodyatt & Wenzel, 2013) was administered to assess self-forgiveness. Participants' scores were aggregated according to three subscales: genuine self-forgiveness, (e.g. "I am trying to accept myself with my failures."), pseudo self-forgiveness (reversed scored; e.g. "I wasn't the only one to blame for what happened.") and self-punishment (reversed scored; "I deserve to suffer for what I've done."). In the current sample, α for the complete scale was .79.

Results

Data Analysis

Statistical Analysis. All analyses were conducted using IBM SPSS Statistics for Macintosh, Version 24. First, Pearson correlation coefficients (r) were computed to examine the relationships between main study variables. Additionally, consistent with prior literature, partial correlations were also calculated with respect to main study variables. Second, mediated regression analyses were performed using the PROCESS macro for SPSS (v.2.13, Model 4, Preacher & Hayes, 2008). PROCESS ascertains the indirect effects of a relation (mediation effect) and calculates a bias-corrected and accelerated bootstrapped confidence intervals for the size of the mediated effect. Significant mediation occurs when confidence intervals do not contain zero.

Missing Data. Although total N was 132 there was missing data as some participants did not respond to every item, resulting in final N s for different measures ranging from 124 to 132. The dataset was further analysed to determine whether data was "missing completely at random" (MCAR). The data met this assumption as indicated by a non-significant result to Little's MCAR test.

Testing of assumptions. A visual inspection of plots indicated main study variables were approximately normally distributed apart from shame, which was positively skewed.

Furthermore, scatterplot matrices involving main study variables revealed approximate linear relations. (See Appendix C)

Summary of main study variables and background variables

Main study variables. In general, participants reported themselves as moderately self-forgiving ($M = 3.76$, $SD = .56$), moderately psychologically flexible ($M = 4.29$, $SD = 1.01$) and experiencing average levels of guilt ($M = 3.11$, $SD = 1.04$) and low levels of shame, ($M = 2.38$, $SD = 1.12$); 16% reported not feeling shame at all whilst only 3.8% selected the highest response, with 85% located between low to mid-range).

Background variables. Participants comprised 55.3% female, with ethnic backgrounds self-identified as Caucasian (57.6%), Asian (9.1%), Other (12.1%) and Unknown (21.2%). Participants identified their religious affiliation as Christian (49.2%), Atheist/Agnostic (41.7%), Other (5.3%), and unknown (3.8%) and was dummy coded to 0/1; 1 = those that identify with a religion (55%) and 0 = those that do not (45%). Ages ranged from 18 – 77 years, with a mean of 34.48 and SD of 13.03. The largest group of participants were aged between 18 - 25 years (40 participants) and 29 - 36 years, (40 participants), with the most common age being 18 years (11 participants). Participants' reported transgressions committed against friends/acquaintances (28.8%), family members (24.2%), relationship partners (20.5%), work colleagues (8.3%), self (8.3%) and other (9.8%). Time elapsed since offence ranged from less than one day to 19,345 days or 53 years ($M = 2411$, $SD = 3387.29$). On average, participants considered severity and impact of their wrongdoing to be high ($M = 4.83$, $SD = .99$) out of a maximum of six.

Hypothesis Testing

Correlations between main study variables. Despite violation of normality assumptions for guilt and shame, scatterplot matrices revealed approximate linear relations for main study variables. Accordingly, Pearson's product by moment correlation analyses were run to test relations between variables in accordance with hypotheses. Given instruction in guilt/shame literature regarding high covariance and nature of guilt and shame to operate as suppressors (Paulhus et al., 2004), the relation between guilt and shame with self-forgiveness was also examined via partial correlations to avoid confounds. Results are presented in Table 1.

Hypothesis 1: It is expected that self-forgiveness and psychological flexibility will be positively correlated with each other.

This hypothesis was confirmed. Self-forgiveness was moderately correlated with psychological flexibility in the expected direction and this relation was significant.

Hypothesis 2: It is expected that shame will correlate negatively with self-forgiveness and psychological flexibility.

This hypothesis was also supported. Examination of zero order correlations revealed shame was correlated moderately with both psychological flexibility and self-forgiveness in the predicted directions. Partial correlations confirmed this association.

Given equivocal findings with respect to guilt and self-forgiveness, no specific hypothesis was posited. Zero order correlations indicated guilt was negatively correlated with both psychological flexibility and self-forgiveness, but to a lesser degree than shame. Examination of partial correlations, however, revealed a different picture, with a non-significant extremely weak to non-existent, albeit positive, relation with both self-forgiveness and psychological flexibility.

Table 1.

Zero Order and Partial Correlations between variables

<i>Variables</i>	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Guilt	—									
2. Shame	.801***	—								
3. PsycFl	-.475*** (.051)	-.623*** (-.459***)	—							
4. SelfForg	-.361*** (.135)	-.535*** (-.441***)	.469***	—						
5. Age	.087	.066	.030	.019	—					
6. Severity	.221*	.183*	-.111	.028	.218	—				
7. Time	-.021	.043	-.033	.133	.417***	.225*	—			
8. Gender	-.127	-.047	.043	-.132	-.060	-.160	-.008	—		
9. Ethnic	-.006	.017	.011	-.030	.278**	.096	.042	-.230**	—	
10. Religion	.017	.329	.290**	.111	.070	-.040	-.078	-.049	.030	—
11. Religiosity	-.053	.027	-.194*	-.084	-.142	.105	.041	-.005	.050	-.688***

Notes. Partial correlations represented in brackets. Psychological flexibility abbreviated as ‘PsychFl’; Self-forgiveness abbreviated as SelfForg; Perceived severity of offence abbreviated as ‘Severity’; Time since offence (‘Time’) coded as days; Gender (1= male); Ethnicity (1 = Caucasian/white), Religion (1 = identify with a religion);

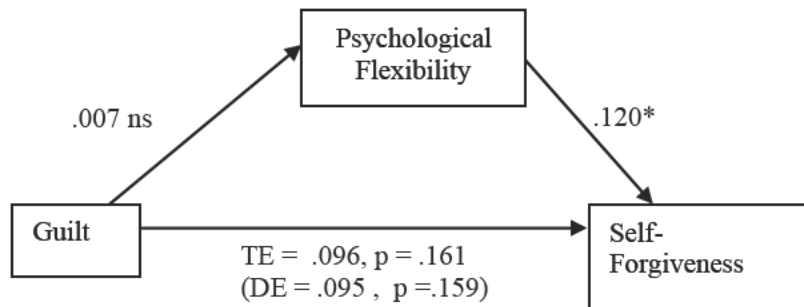
***Correlation is significant at the .001 level (2-tailed). **Correlation is significant at the .01 level (2-tailed). *Correlation is significant at the .05 level (2-tailed).

To identify additional control variables for mediation analyses, correlations of background variables with main study variables were examined. Neither age nor ethnicity significantly correlated with any main study variable. However, both religion and religiosity were inversely related with psychological flexibility and were accordingly identified as covariates.

Mediation analyses: Testing the guilt/shame → psychological flexibility → self-forgiveness models.

Hypothesis 3: Psychological flexibility will mediate the relation between guilt and shame respectively on self-forgiveness. In particular, the following model was tested:
guilt/shame → psychological flexibility → self-forgiveness.

To test the hypothesised model, Preacher and Hayes's (2008) procedure (PROCESS Model 4) was applied with 5,000 bootstrap resamples from the obtained data, along with 95% bias-corrected and accelerated confidence intervals (95% CI_{BCa}). Bootstrap resampling does not impose normality assumptions (Preacher & Hayes, 2008) and was accordingly suitable for the data. Statistically significant mediation occurs when the upper and lower bound of corrected CIs relating to the indirect effect do not contain zero. Analyses were conducted to demonstrate that psychological flexibility mediated the relation between guilt on self-forgiveness. In this model, self-forgiveness (as an aggregate of the three subscales of genuine, punish and pseudo self-forgiveness), was entered as the outcome variable, guilt as the predictor variable and psychological flexibility (as an aggregate of Acceptance, Defusion, Mindfulness and Values) as the mediator. To conserve power, only variables with significant correlations with the proposed mediator variable (psychological flexibility) and outcome variable (self-forgiveness), identified as Religion and Religiosity, were entered as covariates along with shame. Figure 2 illustrates the results.



Indirect effect: $\beta = .001$, 95% CI_{BCa} [-.0226, .0262]

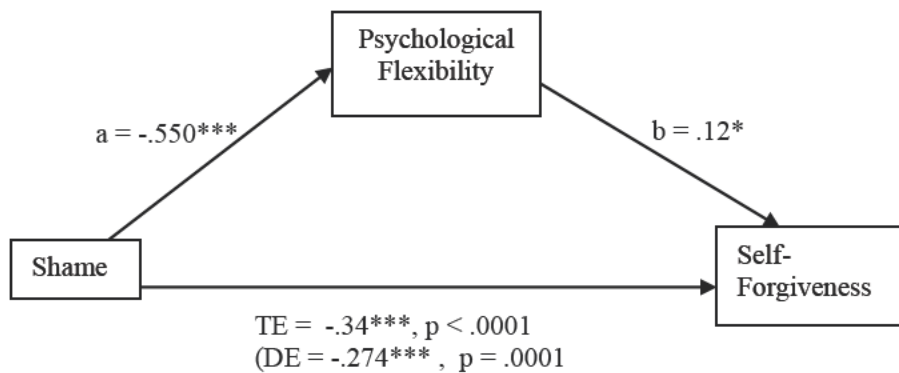
Figure 2. Indirect effect of guilt on self-forgiveness through psychological flexibility.

Notes: Coefficients are unstandardised. ***= $p < 0.001$; **= $p < 0.01$; *= $p < 0.05$; TE = total effect of guilt on self-forgiveness; DE = direct effect of guilt on self-forgiveness through psychological flexibility.

As suggested by partial correlations, guilt did not significantly predict psychological flexibility ($\beta = .007$, $p = .944$), although psychological flexibility significantly predicted self-forgiveness ($\beta = .120$, $p = .030$). When the mediator was entered into the model, the total effect of guilt on self-forgiveness was not statistically significant ($\beta = .096$, $p = .161$). Bootstrapping did not find a significant indirect effect for guilt on self-forgiveness through psychological flexibility ($\beta = .001$, 95% CI_{BCa} [-.0226, .0262]). In other words, it was not possible to reject the null hypothesis that the true indirect effect of shame-free (or pure) guilt on self-forgiveness is zero at 100-CI % level of significance.

When shame was not controlled for, however, the model was significant. Shame-infused guilt significantly predicted psychological flexibility ($\beta = -.468$, $p < .001$), which in turn significantly predicted self-forgiveness ($\beta = .214$, $p < .001$). When the mediator was entered into the model, the total effect of guilt on self-forgiveness decreased and but still remained statistically significant, (TE = $-.198$, $p < .001$; DE = $-.098$, $p = .046$). Moreover, bootstrapping found guilt had a significant indirect effect on self-forgiveness through psychological flexibility ($\beta = -.100$, 95% CI_{BCa} [-.1569, -.0535]).

The procedure was repeated to test the mediation model, shame → psychological flexibility → self-forgiveness, to demonstrate that psychological flexibility mediated the link between shame on self-forgiveness. Once again, Religion and Religiosity were entered as covariates, along with guilt. Figure 3 illustrates the results.



Indirect effect: $\beta = -.066$, 95% $CI_{BCa} [-.1298, -.0163]$

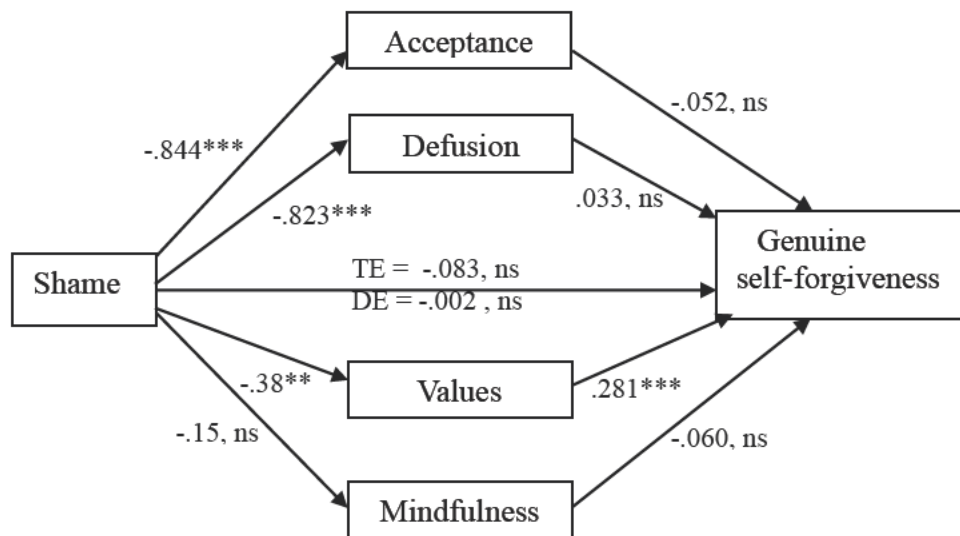
Figure 3. Indirect effect of shame on self-forgiveness through psychological flexibility.

Notes: Coefficients are unstandardised. ***= $p < 0.001$; **= $p < 0.01$; *= $p < 0.05$; TE = total effect of shame on self-forgiveness; DE = direct effect of shame on self-forgiveness through psychological flexibility.

As suggested by both zero order and partial correlations, shame significantly predicted psychological flexibility ($\beta = -.550$, $p < .001$), which in turn predicted self-forgiveness ($\beta = .12$, $p = .030$). When psychological flexibility was entered into the model, the total effect of shame on self-forgiveness (TE = $-.34$, $p < .001$) decreased, however, still remained significant (DE = $-.274$, $p < .001$). Bootstrapping found a significant indirect effect for psychological flexibility ($\beta = -.066$, 95% $CI_{BCa} [-.1298, -.0163]$), indicated by confidence intervals that do not contain zero. In other words, the indirect effect of shame on self-forgiveness through psychological flexibility is not zero by a 95% BCa CI based on 5000 bootstrap samples. Self-forgiveness was associated with approximately .066 units lower shame as mediated by psychological flexibility. Thus,

shame negatively predicted self-forgiveness, with evidence to suggest that to the extent that shame predicts self-forgiveness it does so through psychological flexibility. This is consistent with the claim that shame reduces psychological flexibility which in turn lowers the likelihood of authentic self-forgiveness.

Post Hoc analyses: Testing multiple mediators (sub-processes of psychological flexibility) of shame on genuine self-forgiveness. Given the above result for shame, supplementary analyses were conducted to identify the specific component of psychological flexibility that was mediating on each aspect of self-forgiveness. Accordingly, a series of three parallel mediation models (PROCESS Model 4; see figure 4) were run, with shame entered as the predictor variable and each of genuine self-forgiveness, self-punishing and pseudo self-forgiveness as the outcome variables respectively. The four sub-process measures of psychological flexibility were entered as parallel mediators. As before, both Religion and Religiosity and guilt were entered as covariates. No significant indirect effects were observed when self-punishing or pseudo self-forgiveness were entered as outcome variables, however genuine self-forgiveness returned a significant indirect effect. Figure 4 illustrates the result.



Indirect effect: $\beta = -.107$, 95% CI_{BCa} [-.2411, -.0293]

Figure 4. Parallel mediation model of individual processes of psychological flexibility as mediating the link between shame on genuine self-forgiveness.

Notes: Coefficients are unstandardised. ***= $p < 0.001$; **= $p < 0.01$; *= $p < 0.05$; ns = not significant; TE = total effect of shame on genuine self-forgiveness; DE = direct effect of shame on genuine self-forgiveness via multiple mediators (Acceptance, Defusion, Values and Mindfulness).

Only the values/committed action component of psychological flexibility significantly mediated the link between shame on genuine self-forgiveness. Results indicated shame was a significant predictor of Values ($\beta = -.38$, $p < .0001$), which in turn was a significant predictor of genuine self-forgiveness ($\beta = .281$, $p < .0001$). Bootstrapping revealed shame had a significant indirect effect on genuine self-forgiveness *only* through Values ($\beta = -.107$, 95% CI_{BCa} [-.2411, -.0293]). Genuine self-forgiveness was associated with approximately .107 units lower shame as mediated by Values. Thus, even though shame does not predict genuine self-forgiveness, it does so through Values. In other words, shame reduces the ability to do what matters (i.e. Values/committed action), in turn lowering likelihood of genuine self-forgiveness.

Discussion

This study integrates the two research domains of ACT and self-forgiveness, on the backdrop of real-world transgressions to test hypothesised roles of psychological flexibility in facilitating authentic self-forgiveness. Evidence was found to support hypothesised associations with respect to shame, psychological flexibility and self-forgiveness. No hypothesis was posited with respect to guilt. Partial correlations diverged from zero-order correlations in revealing non-significant associations between guilt and both self-forgiveness and psychological flexibility, albeit in a positive direction. Additionally, the mediating role of psychological flexibility in the link between guilt/shame on self-forgiveness was substantiated for shame and shame-tainted guilt but not shame-free guilt. Moreover, post-hoc analyses revealed the values/committed action component of psychological flexibility mediated the link between shame and genuine self-forgiveness. Hypotheses will be individually reviewed, with results deliberated and evaluated in light of previous literature. Finally, limitations, future directions and clinical implications of study findings are discussed.

Review and evaluation of hypotheses

Correlational analyses.

Hypothesis 1. The first hypothesis posited that self-forgiveness and psychological flexibility will be positively correlated with each other.

Associations between self-forgiveness and psychological flexibility remain largely untested, hence this relation was of particular interest. The few studies with reported correlations found moderate magnitudes, $r = .45$ and $r = .53$ (McGaffin et al., 2013; Williams, 2015), which converged with results in the current study.

Hypothesis 2. The second hypothesis posited shame will correlate negatively with psychological flexibility and self-forgiveness.

Relations with respect to shame and self-forgiveness were replicated in accordance with previous literature (Carpenter, Tignor, Tsang, & Willett, 2016; Griffin et al., 2016; Ranganadhan & Todorov, 2010). More pertinently, results with respect to shame and psychological flexibility in the current study also correspond with research findings within the ACT research domain involving shame (Luoma et al., 2007). This cross-domain consistency adds further weight to adopting an integrative and holistic approach with respect to psychological flexibility and self-forgiveness.

Given equivocal findings for guilt and self-forgiveness, no formal hypotheses were posited. Inverse relations observed between guilt and self-forgiveness in this study contradicted findings of a positive relation by Carpenter and colleagues (2016), but were consistent with findings by Griffin and colleagues (2016). This discrepancy may be attributable to several factors. First, zero order correlations were utilised in the current study. Comparing partial correlations of guilt with self-forgiveness revealed consistency in (positive) direction found by Carpenter and colleagues (2016), even if not a significant result. A similar pattern was observed with respect to shame and psychological flexibility. This demonstrates the chameleonic nature of shame-affected guilt and reiterates the need to account for covariance and suppression when researching guilt and shame (Paulhus et al., 2004; Tangney & Dearing, 2002).

Second, Carpenter and colleagues (2016) utilised measures relating to trait or dispositional guilt/shame, whereas both Griffin and colleagues (2016) and the current study employed a state guilt/shame measure. Trait measures focus on *proneness* to feel guilt/shame whereas state measures focus on actual guilt/shame experienced in the moment (Tangney & Dearing, 2002).

Additionally, Carpenter and colleagues (2016) utilised the Heartland self-forgiveness scale (Thompson et al., 2005) to operationalise self-forgiveness. As reviewed above, the Heartland scale (and other trait measures) focus exclusively on positive self-regard as an ultimate end state of the self-forgiveness process (Wenzel et al., 2012), which has the effect of conflating excusing /pseudo self-forgiveness with genuine self-forgiveness.

In sum, correlational analyses largely converge on previous research findings. Differences were likely attributable to use of trait measures for guilt/shame and self-forgiveness as opposed to the state measures utilised in the current study. More significantly, however, differences observed between zero-order and partial correlations reiterate the need to separate shame-infused guilt from pure guilt. Furthermore, similarities noted across domains with respect to shame lend support to adopting a holistic and integrative approach for adopting psychological flexibility to facilitate the self-forgiveness process.

Mediation analyses: The guilt/shame → psychological flexibility → self-forgiveness model.

Hypothesis 3. Psychological flexibility will mediate the relation between guilt/shame on self-forgiveness.

The current study failed to replicate previous findings with respect to (shame-free) guilt as a positive predictor of self-forgiveness (Griffin et al., 2016; McGaffin et al., 2013). However, when shame was not controlled for, the model was significant, indicating that shame was responsible for the effect. This is consistent with scholarly thought that shame-infused guilt (rather than pure guilt) is associated with adverse/maladaptive outcomes (Tangney et al., 2007). In this sense, continual rumination about the bad act may cause guilt (“I did a bad thing”) to become tainted with shame (e.g. over the course of time), transforming into “I’m a horrible

person for doing that bad thing”, thereby adopting shame characteristics. From a psychological flexibility perspective, this would amount to cognitive fusion initially with the wrongful act, which is in turn globalised to include the self, resulting in associated psychological *inflexibility*, ultimately manifesting as clinical or maladaptive guilt. Thus, consistent with both ACT theory and guilt/shame research, results of the current study support the claim that psychological flexibility mediates the relation between shame-infused guilt on self-forgiveness.

The result with respect to guilt-free shame was consistent with both McGaffin et al. (2013) and Griffin et al. (2016). The current study found shame negatively predicted self-forgiveness and this relation was mediated by psychological flexibility even when guilt was controlled for (McGaffin et al. 2013). Accordingly, results from the current study, in conjunction with McGaffin et al. (2013) findings, garners increasing support for the mediating role of psychological flexibility within the self-forgiveness process, at least with respect to shame and shame-infused guilt. Given the non-significant result, no conclusion could be drawn with respect to the mediating role of psychological flexibility and shame-free guilt on self-forgiveness. Possible reasons for this result are explored and discussed.

Although a similar-sized sample was recruited by both McGaffin et al. (2013) and in the current study, several factors distinguish them (see Table 2 for a summary).

Table 2.

Comparison of prior studies with current study

<i>Criterion</i>	McGaffin et al. (2013)	Griffin et al. (2016)	The current study
Sample type	Clinical (addiction-related) N = 133	Non-clinical (undergraduate) N = 410	Non-clinical (undergraduate + community) N = 132
Demographics:			
Sex/gender	Predominantly male (74%)	Predominantly female (70.6%)	Predominantly female (55%)
Ethnicity	not reported	Caucasion/white (55.4%)	Caucasion/white (57.6%)
Age range (M, SD)	not reported (37,5, 11,24)	18 – 56 years (20.48, 3.93)	18 – 77 years (34.48, 13.03)
Religion	not measured	Identify with a religion (72.7%)	Identify with a religion (55%)
Religiosity	not measured	not measured	Slightly to not very religious (68%)
Guilt/shame			
Type	Trait	State	State
Measure	TOSCA ^a	SSGS ^b	SSGS ^b
Self-forgiveness			
Type	Trait	State	State
Measure	Heartland ^c	DPSS ^d	DPSS ^d
Psychological flexibility			
Measure(s)	AAQ-II ^e (Acceptance)	not measured	Aggregate of Acceptance, Defusion, Values/committed action & Mindfulness

Notes. Scales represented include a = Test of self-conscious affect (Tangney et al., 1989); b=State Shame and Guilt Scale (Marschall et al., 1994), c = Heartland self-forgiveness subscale (Thomson et al., 2005); d = Differentiated Process Scales of Self-forgiveness (Woodyatt & Wenzel, 2013) e = Acceptance and Action Questionnaire–II (Bond et al., 2011).

First, dispositional (trait) rather than situation-specific measures for guilt, shame and self-forgiveness was utilised by McGaffin et al (2013). Thus, McGaffin et al (2013) found *prone* to (shame-free) guilt predicted self-forgiveness. However, concerns have been raised as to whether scenario-based (guilt prone) measures such as the Test of Self Conscious Affect (TOSCA) guilt scale (Tangney et al., 1989) as utilised by McGaffin et al (2013) is actually a true

measure of guilt (Giner-Sorolla et al., 2011). More specifically, positive findings reported in studies concerning the relation between guilt and self-forgiveness utilising the TOSCA guilt scales may stem from failure of that measure to account for maladaptive components of guilt (Luyten, Fontaine, & Corveleyn, 2002). In accounting for only the adaptive component of guilt, the TOSCA scale is a measure of *motivation to make amends* as opposed to the guilt experience. That the focus is on a correlate of guilt (reparative action) rather than the *experience* of guilt (affective feelings) may thus provide one explanation for the positive finding with respect to shame-free guilt observed by McGaffin et al. (2013).

Another point of difference relates to the trait measure of self-forgiveness (Heartland scale) utilised by McGaffin et al. (2013). As reviewed above, the Heartland scale conflates pseudo self-forgiveness with genuine self-forgiveness. Thus, McGaffin et al.'s (2013) finding could be qualified as adaptive guilt (positively) predicting an amalgam of pseudo and genuine self-forgiveness. In the current study, the effect of both pseudo self-forgiveness and self-punishing were removed (or at the very least minimised) from self-forgiveness (i.e. as an aggregate of high genuine, low pseudo and low self-punishing scores), which may in turn account for differing results.

Nevertheless, the current study also failed to replicate findings by Griffin et al. (2016), despite correspondence with measures used for both self-forgiveness and guilt/shame. However, Griffin et al. (2016) recruited a much larger sample, ($N = 410$), comprising younger, predominantly more females and those who identified with a religion as compared with the current study (see Table 2). Age, gender and religion (Davis, Worthington, Hook, & Hill, 2013; Miller, Worthington, & McDaniel, 2008) have been shown to impact self-forgiveness and could explain discrepancies in results. It is also possible that the current study was under-powered to

detect an effect with respect to pure guilt on self-forgiveness in a non-clinical sample. These factors could be addressed in future research.

Second, whilst extant literature supports shame-free guilt proneness with associated adaptive outcomes (Tangney et al., 2007), the effect of situation-specific guilt (i.e. affective feelings of guilt) is less empirically certain. Most guilt/shame research is undertaken using trait measures. For example, shame-free guilt proneness is associated with increased perspective taking and empathy (Leith & Baumeister, 1998), constructive responses to anger (Tangney et al., 1996) and pro-social outcomes (Tignor & Colvin, 2017). It has been suggested that state guilt measures, in testing for regretful feelings and experiences, target guilt feelings but without the motivation to spur action (Carpenter et al., 2016; Luyten et al., 2002). Thus, whilst use of a state shame measure was entirely appropriate in the current study for assessing situation-specific experience of guilt feelings consequential on actual, real-world transgressions, it lacked in ability to assess the adaptive and motivational aspect of guilt (Giner-Sorolla et al., 2011; Luyten et al., 2002).

Third, guilt and shame can co-occur in certain situations (Tangney, 1996). This is especially the case with situation-specific *moral* transgressions (Lewis, 1971), as was the subject of the current study. Contributing to this problem is presumed ability on the part of the participant to objectively discriminate between feelings of guilt and shame, a difficult task especially in light of the emotional nature of the task. For example, mere remembrance of a past transgression may cause (transient) distressing feelings to arise, which in turn may colour participant responses to guilt items, with (transient) shame feelings in effect augmenting guilt responses. In other words, participants may indicate a higher score for “I feel bad about this thing I’ve done”, (a guilt item) due to inability to objectively recognise the nature of (transient) shame

feelings brought on by the memory of their specific wrongdoing. Empirical support for this phenomenon in the context of moral transgressions is demonstrated by Lewis (1971).

Finally, whilst guilt and shame are correlated, they are also independent and distinguishable (Lewis, 1971; Tangney & Dearing, 2002) with differing motivations (Carpenter et al., 2016; Tangney, 1991). The extremely high correlation between guilt and shame observed in the current study ($r = .81$), however, seems to refute independence, pointing to fusion of guilt with shame (see Lewis, 1971). This assertion is further corroborated by longer time elapsed since the transgression event in the current sample. Given the wide range reported in the current study, (2 hours to 53 years), modal responses provide a more useful indication than the mean and amounts to about 2 years (730 days). Given the magnitude of elapsed time since reported transgressions, it is possible that participants in the current sample were manifesting clinical/pathological guilt, which would also explain the significant result when shame was not controlled for.

Post hoc analysis: Identifying specific mediating variables within psychological flexibility in the shame → genuine self-forgiveness relation. Given the significant indirect effect of psychological flexibility on the relation of shame on self-forgiveness, supplementary analyses were undertaken to ascertain which specific component of psychological flexibility was responsible for the mediating effect. Consistent with ACT theory reviewed above, the current study found shame predicts (genuine) self-forgiveness, but *only* through psychological flexibility (values/committed action). Thus, even though shame has *no* relation to genuine self-forgiveness, it does *through* the values/committed action sub-process of psychological flexibility. Accordingly, results from the current study highlight the potential importance of values/committed action as a predictor of genuine self-forgiveness, particularly in non-clinical

populations.

This finding contrasts with McGaffin et al. (2013), whereby acceptance was found to mediate the effect. One reason for the discrepancy in findings may correspond with the low intensity or degree of shame reported by participants in the current study. Participants self-reported low levels of shame with modal responses (16%) indicating not feeling shame at all. Moreover, 85% of participants reported low to mid-level shame, with only four out of 132 participants indicating the highest possible response. Additionally, even when allowing for fusing of guilt and shame, guilt intensities were reported as average. In contrast, McGaffin et al. (2013) sampled a high-shame, clinical (addiction-related) population. In accordance with ACT theory, shame may be conceptualised as (cognitive) fusion with self-denigrating thoughts and self-concepts. This produces substantial emotional distress, which prompts automatic emotional avoidance or control strategies in attempts to avoid contact with distressing stimuli. In a high shame (e.g. addiction-related) population, this distress is significantly greater and may be amplified by repeated failures/relapses, which in turn entrench a malignant view of self. In promoting a more transcendent view of self, psychological flexibility mediates the relation between shame and self-forgiveness through acceptance, which assumes a more prominent role in the process. To this end, distress must be embraced (acceptance) so that valued living (values/committed action) may follow.

As an alternate explanation, McGaffin et al.'s (2013) sample comprised a clinical population *actively* seeking treatment for addiction problems, indicating high motivation for behaviour change, which was corroborated by the trait guilt measure utilised. Thus, results from McGaffin et al. (2013) with respect to psychological flexibility could more accurately be restated that psychological flexibility mediated the relation between *adaptive guilt* on self-forgiveness. In

contrast, participants in the current study comprised a non-clinical sample manifesting predominantly maladaptive guilt. Thus, it is conceivable that differing sub-processes of psychological flexibility (acceptance vs values) may target and affect different components (i.e. adaptive vs maladaptive) of guilt. As this was not a hypothesis in the current study, no formal conclusions may be drawn in this regard, however, the findings provide sufficient basis to galvanise further research.

Implications

Several implications follow. First, findings from the current study aid understanding of the self-forgiveness process. Psychological flexibility and ACT theory provide a solid conceptual and theoretical basis to explain *how* and *why* self-forgiveness works. Results from the current study provide empirical support, albeit tentative, for such a theoretical basis at least with respect to shame and shame-infused guilt, thereby laying the groundwork for future intervention studies.

Second, corresponding findings across domains (eg with shame and self-forgiveness and ACT literature involving shame and self-punishing) lend weight to adopting an integrative and holistic approach to understanding the self-forgiveness process. These findings are especially pertinent in lieu of current popularity and ascendancy of third wave and acceptance/mindfulness based interventions and implications for wellbeing (Kashdan & Rottenberg, 2010).

Third, study results may potentially inform clinical interventions. Maladaptive shame (and guilt) severely impact on health and resilience (Kim et al., 2011). Genuine self-forgiveness functions as an antidote, ameliorating harmful effects of shame (and maladaptive guilt), thereby building resilience in the context of human failings. Moreover, the current study highlights the budding significance of values/committed action sub-process of psychological flexibility as a necessary and important component for self-forgiveness, particularly in non-clinical and/or low-

shame populations. Even though values/committed action is an explicit process of psychological flexibility, its practice need not be confined to ACT interventions but may be incorporated into other therapeutic frameworks, such as goal setting in CBT. As such, current study findings may have implications for therapy modalities outside of the ACT framework.

Finally, results highlight the importance of researchers' methodological and measurement choices with respect to both self-forgiveness measures that do not confound pseudo-self-forgiveness with genuine self-forgiveness and guilt/shame scales that accurately measure all facets of guilt. Specifically, care should be taken when interpreting results of the Heartland self-forgiveness subscale as a measure of self-forgiveness or TOSCA guilt scales as a measure of guilt (Tignor & Colvin, 2017).

Limitations and future directions

Although this study recruited participants from a wide age-group from both undergraduate and adult online samples, it is not without its limitations. First, study variables were measured using self-report measures. Whilst this approach is common in psychological research, self-reported data in this study relies on participants ability to honestly and objectively appraise their reactions and responses to transgressions. This is particularly pertinent with respect to participants reporting on guilt and shame. Given the emotional nature the task involved, it is possible that participant answers to measures were over or underestimated. Future researchers could incorporate additional methods of assessment, (e.g. implicit measures). Triangulating data by using multiple measures to ascertain guilt and shame (e.g. trait and state) may also afford a more valid representation of these phenomena.

Second, this study employed a cross-sectional and correlational design. Accordingly, care should be undertaken in ascribing causality. Furthermore, study findings with respect to possible

differential roles targeted by different processes of psychological flexibility (e.g. acceptance with adaptive guilt and values/committed action with maladaptive guilt) are the result of post hoc analyses and accordingly do not withstand the rigor of formal hypothesis testing. Nevertheless, this is the first study to have demonstrated the mediating role of psychological flexibility with sub-processes other than acceptance in the relation between guilt/shame and self-forgiveness. In so doing, it has laid the groundwork for future experimental and longitudinal studies to more particularly address these questions.

Third, the current study utilised a recall paradigm to assess the impact of real-world transgressions on actual self-forgiveness. Whilst this imbues observed results with external validity, recalled offences were not standardised, thereby introducing the possibility that other unmeasured variables may be functioning as covariates and/or otherwise contributing to conclusions. For example, developmental or trauma history may affect how one relates, responds or reacts to failures, which was unaccounted for in this study.

Fourth, this study utilised convenience sampling. Although attempts were undertaken to maximise sample diversity, which was observable in some respects (e.g. age range of 18 – 77 years), it was also homogeneous with respect to ethnicity (white/Caucasian) and culture (individualistic/ Western). Accordingly, conclusions may have limited generalisability in accordance with differing conceptualisations of guilt and shame and/or self-forgiveness, for example in more collectivist or religious cultures. Future researchers could employ a more heterogeneous sample and account for these considerations.

Conclusion

Psychological flexibility, the subject of the research domain of ACT, shares substantial conceptual theoretical and definitional overlap with self-forgiveness. Yet, the relation between

psychological flexibility and self-forgiveness remains an empirical mystery, with a paucity of studies examining both concurrently. In integrating the two domains, this study addressed this gap in addition to demonstrating that psychological flexibility provides a sound theoretical basis in transforming transgression-specific distress into authentic self-forgiveness *without* the problematic confounds with pseudo self-forgiveness or self-punishing evident in self-forgiveness literature. Moreover, in broadly operationalising psychological flexibility, this is the first study to explore the mediating role of psychological flexibility within the guilt/shame with self-forgiveness relation utilising measures in addition to acceptance.

The current study garners increasing support for the mediating role of psychological flexibility in the relation between shame (and maladaptive guilt) on self-forgiveness. Although findings with respect to shame-free guilt were inconclusive, this may reflect methodological and measurement complexities along with differences in sample demographics. Nevertheless, given the ubiquity of human failings, results of the current study point to psychological flexibility as a key influence to successfully navigate the path to authentic self-forgiveness, whereby one's mistakes and failings may guide and inspire rather than define and confine.

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APPENDIX A

WELCOME & INFORMED CONSENT

First, we need to make sure you are over 18 years of age and understand what this study involves - i.e. thinking about and describing a wrongdoing and answering some questions about it.

* 1. In proceeding, you are indicating you understand what this study involves and agree to the same.

Yes

No

* 2. What is your age? (in whole years)

APPENDIX B

SECTION 1

Describe the wrongdoing

In this section, you are asked to identify and record a specific instance you now regret where your behaviour impacted another person and/or went against your personal standards/values. This may involve a specific action on your part (e.g. shoplifting) or something you should have done but didn't (e.g. not speaking out when someone was bullied). Alternatively the offence/wrongdoing could be against yourself/your values (e.g. relapse behaviour with alcohol /drugs)

- * 3. It is really important you recall one specific offence/wrongdoing that you regret. Think of your actions and who you hurt/offended. Consider how your actions affected them/yourself? Briefly, (3 - 5 sentences), describe this incident in the space provided, recording what you did, what personal value or standard you violated and how this has/continues to affect you even today.

4. What is/was your relationship to the person you hurt/offended?

- Relationship partner
- Family member
- Friend / acquaintance
- work colleague
- self (if you pick this option, go to Q 5 part 3)
- other

5. The following questions relate to **HOW SEVERE/IMPACTFUL** your actions were toward the other person/yourself.

	very positively			None			very negatively
How did your behaviour affect the other person?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How did your behaviour affect your relationship with the other person/self?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How did your behaviour affect you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. How much time has elapsed since the incident?

7. How true are the following statements for you NOW, relating to the described incident

	very true				not true at all
I have forgiven myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have not forgiven myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try not to think about what I did	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. The following are some statements which may or may not describe how you are feeling RIGHT NOW when you consider the incident you described earlier.

Please rate each statement below based on how you feel right NOW *as you think about the incident you described above.*

	Not feeling this way at all		Feeling this way somewhat		Feeling this way very strongly
I want to sink into the floor and disappear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel remorse, regret	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel small	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel tension about this thing I have done	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like I am a bad person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I cannot stop thinking about this bad thing I have done	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel humiliated, disgraced	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like apologising, confessing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel worthless, powerless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel bad about this thing I have done	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SECTION 4

DEMOGRAPHIC INFORMATION

In this final section, you are asked to provide basic information about yourself.

16. What gender do you identify with?

- female
- male
- other
- prefer not to say

17. What is your ethnic background? (i.e. What group or culture do you identify with?)

18. What is your religious affiliation?

19. How religious are you?

- very religious
- moderately religious
- slightly religious
- Not at all religious

20. If you are an **undergraduate Psychology student at the University of Adelaide** and wish to receive course credit for participating in the study, please **insert your five-digit research participation ID number** below. **Please note this is NOT your student ID number.**

FOR ALL OTHER PARTICIPANTS please leave this blank.

21. FOR UNDERGRADUATE PSYCHOLOGY STUDENTS at the University of Adelaide, please enter your **STUDENT IDENTIFICATION NUMBER** here. FOR ALL OTHER PARTICIPANTS, please leave this blank

Thank you!

Thank you for your participation.

It is normal to experience uncomfortable feelings when remembering/recalling past transgressions/wrongdoings. We all make mistakes. For the most part, these can be opportunities to learn and become stepping stones that help us develop character and growth. If, however, you are continuing to experience lingering discomfort as a result of taking part in this survey we encourage you to seek the support of family, friends and/or alternative mental health supports within your local community. You may contact the 24-hour Lifeline Crisis Support Service on 131 114. If you are a student at the University of Adelaide, you can avail yourself of the Student Counselling Service on 8313 4455. <check number>

If you participated and are not an enrolled student and wish to receive general feedback in relation to this study, kindly send me an email at jemima.bem@student.adelaide.edu.au, in or about December 2017, for a copy of the results/findings. Please note, however, as no identification information is obtained, feedback of individual results will not be possible.

Any further questions/queries/concerns associated with the practical aspects of your participation in this project should be directed to the Principal Investigator, details below.

Should you wish to speak with an independent person regarding any concerns and/or complaints, the University's policy on research involving human participants or your rights as a participant please contact the convenor of the School of Psychology's Human Research Ethics Subcommittee, Prof. Paul Delfabbro, by phoning (08) 8313 4936 or by email to paul.delfabbro@adelaide.edu.au. Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

Thanks again and have a great day!

Principal Investigator/Supervisor

Dr Peter Strelan, [REDACTED]
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Student Researcher

Jemima Bem
[REDACTED]

Convenor of the Subcommittee for Human Research in the School of Psychology

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APPENDIX C

Scatterplot matrix of main study variables

