Beyond the Eye: Effect of Guilt and Redemption on Hidden Self-Harm

By

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In Partial Fulfillment of the Requirements for the Degree of

MASTER OF SCIENCE

in

The Department of Psychology

State University of New York

New Paltz, New York 12561

April 2025

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in Psychology at the State University of New York at New Paltz

Abstract

Self-harm is traditionally viewed as a physical manifestation. This study aims to broaden the scope of what constitutes self-harming behavior and the role that guilt, and redemption can play on it. The study explores non-traditional forms of self-harm, termed as culturally acceptable forms of self-harm, like over-working, procrastination, intentional absence of self-care etc. Specifically, it examines the role of guilt and redemption in motivating individuals to engage in aversive experiences (aversive sound). Participants underwent a guilt-inducing manipulation and were subsequently asked to listen to an unpleasant audio stimulus. It was hypothesized that (1) participants offered a chance for redemption would endure the aversive sound for a shorter duration than those not offered redemption, and (2) engaging in the aversive task would reduce feelings of guilt across all participants. Guilt was measured using the Guilt and Shame Questionnaire (GSQ-8) twice, before the guilt-inducing manipulation, and post the aversive audio phase. A t-test indicated that participants who were given a chance for redemption listened to the aversive audio for a significantly shorter duration than those who were not given a chance for redemption. An ANCOVA analysis, controlling for initial guilt scores showed a significant effect of condition on final guilt, with participants in both conditions reporting reduced guilt levels post-task, and those in the neutral condition reporting a greater reduction. These findings suggest that engaging in culturally acceptable aversive behaviors may serve a guilt-alleviating function, and that perceived opportunities for redemption may modulate the extent of such self-directed harm.

Beyond the Eye: Effect of Guilt and Redemption on Hidden Self-Harm

This thesis was designed to explore the psychology of self-harm. Specifically, this work sought to explore the connection between guilt-alleviation processes, such as having the opportunity to apologize for a transgression, leads to lowered self-harm tendencies. Such a finding could have important implications for protocols and processes for reducing self-harm in a broader sense. Further, such work can shed light on the connection between social and emotional outcomes and processes as they relate to self-harm.

The Psychology of Self-Harm**

Traditionally, self-harming behavior has been distinguished in deliberate self-harm (DSH) (intentionally hurting oneself, irrespective of extent or intent) and non-suicidal self-injury (NSSI) (hurting oneself deliberately without suicidal intent) (Nock et al., 2006; Stänicke, 2021). A suicide attempt has been defined as the deliberate effort aimed at ending one's own life (Nock et al., 2006).

Research suggests that many individuals who engage in self-harm have underlying psychiatric disorders (Hawton et al., 2013). Depression, bipolar disorder, and anxiety disorders are especially prevalent, along with ADHD and conduct disorder among adolescents (Hawton et al., 2013; Singhal et al., 2014). Therefore, much psychological research has focused on self-harm as a byproduct of a clinical disorder, or as a symptom of a disorder.

A question that arises is why people engage in self-harm in the first place. The analysis of the lived experience of self-harming behavior and its meaning-making highlighted three major themes in which adolescents handle inner pain: "I deserve pain," "I don't want to feel anything," "I'm harmed, and no one cares" (Stänicke, 2021). These findings illustrate the inner struggle that

fuels self-harming behavior. The first theme, “I deserve pain,” underscores the role of self-criticism in self-harming behavior. The act of engaging in self-harming behavior has been associated with negative self-image and self-criticism (Hooley & Germain, 2014). A possible reason for engaging in self-harm can thus be because of an individual belief that he/she deserves the pain (due to their negative self-image) (Hooley et al., 2010). It has also been established that improving self-worth decreases the willingness of an individual to endure pain, and a boost in self-worth is reported post experiencing pain (Hooley & Germain, 2014). Additionally, according to Leon Festinger’s Theory of Cognitive Dissonance (1975), humans attempt to reduce dissonance in cognitions (thought patterns). In the presence of opposing cognitions, humans attempt to change one cognition so that it is consonant with the other. Thus, it is not too far a stretch to posit that self-harming behavior can be seen as an attempt to bring consonance in cognitions.

Beyond its psychological implications, self-harm also functions as a form of social communication, often signaling emotional distress in environments where direct expression of pain is discouraged (Turner et al., 2012). Many individuals who engage in self-injury report feeling a sense of control over their emotions through physical pain or view it as a way to externalize internal suffering. For example, individuals might talk about self-harm to seek relaxation and control over their life and something that helps them create an equilibrium (Stänicke, 2021). From a sociological standpoint, this can be understood as an act of resistance against societal norms that dictate how distress should be expressed or managed (Adler & Adler, 2007). Adolescent self-harm, for instance, has been linked to subcultural affiliations that reject mainstream social norms and embrace nonconformity as a means of identity formation (Nock, 2010).

The third theme, as illustrated by Stänicke (2021) ties with the need for belongingness and the fear of being left alone. This ties in with the evolutionary reasons that fuel self-harming behavior. The act of self-harm (when viewed through an evolutionary perspective) has been reasoned as an act of signaling and bargaining (Hagen et al., 2008). When individuals are unable to communicate their need for help through cheap signals like verbal communication, individuals seek to use costly signals to get their point across (Gaffney et al., 2022; Hagen et al., 2008). Self-harm is one such costly signal that individuals employ. Since these signals are more costly (detrimental, or difficult to demonstrate) to the individual, they are perceived to be more credible.

Hidden Self-Harm

When individuals are prompted to discuss self-harming behavior, there is a noticeable tendency to focus predominantly on its physical manifestations. Cutting of wrists or burning is the stereotypical representation of non-suicidal self-injury (NSSI). Definitions of self-harm, like DSH or NSSI, also revolve around highly visible acts which lead to direct tissue damage, with a clear intention to physically hurt oneself, with or without suicidal intent (Green et al., 2017; Nock, 2010; St. Germain & Hooley, 2012). It is a widely prevalent phenomenon (Blasco-Fontecilla et al., 2016; Himelein-Wachowiak et al., 2022; Victor et al., 2012), with rates as high as 21% in young adults and 40% in adolescent inpatients (St. Germain & Hooley, 2012).

However, there are also other forms of self-harm that lack a physical nature and may be more *normative* than clearly self-destructive. Normative here implies that bystanders or observers may not react to these other indirect forms of self-harm in comparison to how they might react to direct forms of NSSI. For example, a bystander maybe more prone to react to bruises on the wrist than seeing an individual constantly over-working or exercising to the point of burnout. Turp

(2002) in her book, “Hidden Self-Harm” talks about how the characterization of self-harm purely in its physical nature is too narrow and does not begin to cover the range of behaviors humans engage in that are self-detrimental. Self-harm can manifest in various forms, ranging from overt actions to those that are subtle and often go unnoticed. These virtually invisible manifestations of self-harm have been termed culturally acceptable self-harming activities (CASHAS) or hidden self-harm (Turp, 2002).

While such behaviors may not actively damage bodily tissue, their ill effects are likely to accumulate over time (Green et al., 2017). Such behaviour should be clinically significant, persistent, concerning for family or clinicians, and may potentially have physical damage over a period of time (Green et al., 2017). Examples may be substance abuse, excessive workouts and gym, overworking to the point of burnout, or repeatedly going back in abusive relationships. The reason why these behaviors may go unnoticed is that they are “socially acceptable” forms of self-harm or *indirect forms of self-harm.* Indirect self-harm may also include risky behaviour such as rash driving, or unsound decision making. Women are more prone to engaging in direct forms of self-harm like cutting, scratching, hair-pulling, or burning. On the other hand, men reportedly tend to engage in more risky behavior, like rash driving, or indirect forms of self-harm, like banging their head on walls, self-hitting, or breaking objects (Green et al., 2017).

Turp (2002) further elucidates that these behaviors can also serve as rites of passage—such as tattooing or scarification—or as expressions of devotion, exemplified by practices like pilgrimages or self-flagellation. She differentiates between these normal phenomena of casha and abnormal self-harm through the level of desperation and emotional distress experienced by the individual. This term highlights that while certain behaviors maybe socially sanctioned, they can still reflect self-harming tendencies. Although these actions like—procrastination, chronic

physical activity, or an abnormal urge to seek adrenaline rush through activities known to be detrimental to well-being etc—are frequently overlooked or normalized within society, they can serve as indicators of deeper psychological struggles that require recognition, understanding, and compassion.

Guilt, Redemption, and Self-Harming Tendencies

Through the course of time, it has been believed that suffering is associated with redemption and atonement from one's sins. This notion is also reflected in religious beliefs all over the world. For example, Hindus believe in Karma. Karma is the concept that people inevitably suffer the consequences of what they have done. Nothing less, and nothing more than what they deserve. Suffering is thought to be part of the unfolding of karma and a consequence of previous inappropriate actions (Whitman, 2007, p. 610). There are different possibilities suggested by the Bible to whether redemption and remorse are associated. One of the possibilities illustrates that repentance precedes redemption. In Islam, it is believed that personal expiation (through fasting, charity, or piousness) graves the path to redemption (Mathew, 2016). Theologically, in Christianity, redemption is seen as something that is to be achieved through atonement (Mathew, 2016).

In contemporary times, as held by our current law practices, a criminal is set free post he/she serves their time. Jail is perceived as penance, and a criminal "pays" for their sins by suffering. Therefore, the relation between suffering and atonement has evolutionarily been imbibed in humans.

Guilt, a self-conscious emotion arising from the perception of having violated personal or societal standards, can lead individuals to engage in reparative actions (Caplovitz-Barrett, 1995). However, when avenues for redemption are unavailable or perceived as inaccessible, guilt may

manifest in maladaptive behaviors, including self-punishment (Nelissen & Zeelenberg, 2009). This suggests a pronged pathway to those seeking guilt reduction, where individuals, unable to seek redemption, may resort to self-harming behaviors as a form of atonement.

Research indicates that while shame maybe more directly associated with self-harm, guilt can also play a role, particularly when it becomes pervasive and is not alleviated through reparative actions. For instance, Sheehy et al. (2019) conducted a systematic review and meta-analysis examining the relationship between shame, guilt, and self-harm. Their findings suggest that while shame has a stronger association with non-suicidal self-injury (NSSI), guilt's role is more nuanced and may contribute to self-harm behaviors under certain conditions. Furthermore, Inbar et al. (2013) explored how individuals respond to guilt-inducing situations. They found that participants who recalled guilt-inducing events were more likely to engage in self-punishment behaviors, such as administering more intense electric shocks to themselves, compared to those who did not feel guilt. This suggests that guilt can lead to self-harming behaviors, especially when individuals lack opportunities for redemption.

Furthermore, research suggests that individuals use self-punishment to relieve themselves of guilt and as a sign of remorse (Nelissen, 2012). People are more inclined to tolerate a higher level of physical pain when reminded of their immoral deeds and the act of tolerating that pain has also been known to decrease their level of guilt (Bastian et al., 2011). According to Leon Festinger’s theory of Cognitive Dissonance (1975), humans attempt to reduce dissonance in cognitions. In the presence of opposing cognitions, humans attempt to change one cognition so that it is consonant with the other. Therefore, a possible reason for engaging in self-harm could be an individual’s belief that he/she deserves the pain (due to their negative self-image) (Hooley et al., 2010).

While it has been established that guilt plays a role in motivating self-harming tendencies, research also suggests that self-punishment may not occur if individuals are given a chance to redeem for their actions (Nelissen & Zeelenberg, 2009). This guilt-motivated inclination for self-harm or self-punishment when there is no other possibility to redeem for the actions has been called the *Dobby Effect* (Nelissen, 2012; Nelissen & Zeelenberg, 2009).

The Bifurcated Pathway to Guilt Reduction

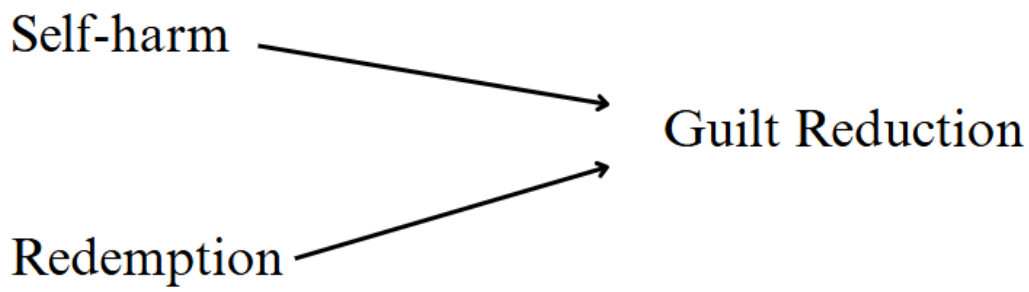

Figure 1: The Bifurcated model to Guilt Reduction

When struggling to deal with emotions of guilt, individuals can take one of two routes: self-harming (Bastian et al., 2011) or seeking redemption. The absence of a way to redeem inclines individuals to follow the first route through self-punishment (Nelissen & Zeelengberg, 2009). Fig 1 demonstrates the proposed bifurcation model to guilt reduction. For example, Nelissen & Zeelenberg (2009) found that guilty people punish themselves if they had no opportunity to redeem for their guilt-inducing actions. Similarly, participants who recalled guilt-inducing events administered more intense electric shocks to themselves compared to those who did not feel guilt (Inbar et al., 2013).

Guilt is most typically triggered by the realization that one violated moral standards, especially where such acts hurt others (Tangney et al., 2007). While guilt can create reparative behavior and prosociality, in the absence of socially sanctioned or otherwise available methods of restoration, individuals come to be self-regulating, subjecting themselves to punishment as a means of managing their feelings (Inbar et al., 2013; Nelissen & Zeelenberg, 2009).

This two-pathway model is supported by empirical findings. Bastian et al. (2011) found that individuals who experienced guilt were more likely to self-punish for longer—such as by putting themselves through pain by immersing their hand in an ice-bucket water—compared to those who did not feel guilty. As part of an experimental task, Inbar et al. (2013) asked participants to reflect on a guilty incident and then presented them with the opportunity to administer electric shocks to themselves. Guilt participants administered significantly more severe shocks than control participants, reflecting that self-inflicted pain was a symbolic path to penance. Furthermore, Nelissen and Zeelenberg (2009) established that high-guilt individuals would endure physical pain when there was no door to redemption or apologia. Their findings support the hypothesis that self-punishment can be a substitute process when normal social repair processes, in the form of apology, confession, or reparation, are unavailable.

The absence of a redemptive process appears to shift the function of guilt control from external reparation to self-punishment, reflecting the psychological pressure people feel to remedy moral dissonance. This psychological need for reparation is consonant with findings in earlier research that have shown that guilt is not only displeasing but action-inducing (Caplovitz-Barrett, 1995)—it galvanizes individuals to morally rectify bad deeds, either socially or by way of personal remorse (Baumeister et al., 1994). When social redemption is unavailable—due to

fear of being ostracized, inability to get to the aggrieved party, or introjected shame—self-injury will be a compelling, though maladaptive, method for redressing moral imbalance.

Current Study

The current study aims to bridge the gap between research on the effect of guilt on self-harming behavior and the role of redemption in curbing such behaviors. Essentially, it seeks to shed light on non-traditional forms of self-harm while studying if similar influences of guilt and redemption are translated to hidden forms of self-harm.

The specific hypotheses it aims to test for are the following:

Hi: After following a guilt-inducing manipulation, participants given a chance for redemption will be willing to listen to the unpleasant audio for a shorter duration relative to participants given a guilt manipulation who are not given a chance for redemption.

H2: Across all participants, the act of listening to the unpleasant audio will decrease the level of guilt in the participants.

Method

Participants

The study included 95 participants through the SUNY New Paltz Participant Pool. The eligibility criteria required participants to be over the age of 18 and have no auditory issues. The mean age of the sample was 20.3 with a standard deviation of 2.01. The study included 60 females and 32 males.

Materials

Guilt and Redemption Prompts

10-minute writing prompts were employed to induce emotions of guilt and redemption. The prompts were as follows: Guilt-inducing prompt: *Think of a time where you felt guilty about your actions in regard to another person. Please make sure that the example you describe is somewhat benign as opposed to something that you perceive as very severe. Describe the circumstances around the situation, focusing on how you felt. Write a story of what happened to make you feel guilty. Please give as much detail as needed (note that you have 10 minutes to write this content).* In the redemption condition, participants were then provided this prompt: *If given the opportunity, how would you make up for the actions you feel guilty about? Write in detail about how you would feel if you are forgiven.* A neutral prompt was also used for the control group, as follows: *Describe the details of your most recent trip to a grocery store.*

Guilt and Shame Questionnaire (GSQ-8)

The study employed the Guilt and Shame Questionnaire (GSQ-8) (Hoppen et al., 2022) to assess the participants experienced guilt at three points in the study. This scale consists of 8 Likert-scale items that aim to measure the strength of guilt. Sample items include "I feel guilty," "I feel ashamed," and "I feel embarrassed." Participants indicated how much they agree with each statement on a scale of one to five (1=strongly disagree, 5=strongly agree). The scale is scored such that higher total scores indicate greater experienced guilt for the individual. See full scale in Appendix A.

Aversive Auditory Stimulus

An aversive audio was used to assess how long a participant will voluntarily put themselves in an unpleasant situation. This audio constituted a sound collage of various environmental noises, including unpleasant sounds like nails scratching, metal being scraped,

squeaking Styrofoam, a loud dentist drill, and a scratchy violin (Zald & Pardo, 2002). This same audio has been used as an aversive audio stimulus to assess its neural correlates and was rated as "highly unpleasant" by all participants (Zald & Pardo, 2002). The audio was administered to the participants using headphones with the computer volume set at 70%.

This audio has been used to ethically operationalize CASHAs. It allowed the researcher to ethically measure how long participants put themselves in a hurtful unpleasant situation voluntarily.

Procedure

Participants signed up for an in-person study that required their attendance in a psychology lab room that has no windows and that is relatively sound-proof. Data collection was conducted via Qualtrics. Firstly, the participant was instructed to write about a guilt-inducing event for 10 minutes. Then, they completed the Guilt and Shame Questionnaire (GSQ-8) (Hoppen et al, 2022). The participant was then randomly allocated to either the apology group, or the no apology group. Participants allocated to the apology group were given 10 minutes to respond to the redemption prompt. In contrast, participants in the no-apology group were given 10 minutes to respond to the neutral prompt. Subsequently, the participants were given headphones to listen to the aversive auditory stimulus. Finally, the participant completed the GSQ-8 again.

Results

The primary hypotheses of this study revolved around predicted relationships between tendency to hear the aversive sound and redemption. Particularly, it stated that: After following a guilt-inducing manipulation, participants given a chance for redemption will be willing to listen

to the unpleasant audio for a shorter duration relative to participants given a guilt manipulation who are not given a chance for redemption. See Table 1 for basic descriptive information regarding these variables.

Table 1: Descriptive Statistics for Time (in Seconds) Endured for the Aversive Stimulus across Experimental Conditions

	Condition	**N**	**Mean**	**SD**
Aversive Stimulus Endured	Neutral	48	49.7	49.8
	Redemption	47	28.1	31.2

A between-groups t-test was used to test for a difference between the time (in seconds) for which guilty participants exposed to the redemption ($M = 28.1$, $SD = 31.2$) condition and the neutral condition ($M = 49.7$, $SD = 49.8$) endured the aversive stimulus for. There was a significant effect of the condition on voluntary endurance of the aversive stimulus ($t(93) = 2.52$, $p < 0.05$, $d = 0.52$). According to these data, there is a significant difference between guilty participants who were given or not given a chance for redemption in terms of how long they willfully endure aversive stimuli, with those not given a chance for redemption listening to the aversive sound for a statistically significantly longer time than those who were given a chance for redemption (mean difference = 21.6 seconds).

The secondary hypothesis purported that the act of listening to the unpleasant audio will decrease the level of guilt across all participants. See Table 2 for basic descriptive information regarding these variables.

Table 2: Descriptive Statistics for the Initial Guilt Score and Final Guilt Score Split by Condition (Redemption/Neutral)

	Condition	N	Mean	SD
Initial Guilt Score	Neutral	48	17.6	7.83
	Redemption	47	17.7	6.40
Final Guilt Score	Neutral	48	11.1	3.56
	Redemption	47	14.0	6.61

An analysis of covariance (ANCOVA) was conducted to compare the effect of condition (redemption vs. neutral) on final guilt scores while controlling for initial guilt. Analyses were conducted using SPSS. After adjusting for initial guilt scores, there was a significant effect of condition on final guilt, $F(1, 92) = 9.20$, $p = .003$, $\eta^2 = .09$, with participants in the neutral condition reporting significantly lower adjusted final guilt scores than those in the redemption condition.

Therefore, we support our second hypothesis. However, it is important to note that individuals in the neutral condition reported a higher decrease in guilt as compared to the redemption condition. Thus, everyone, including participants in the neutral condition, showed a significant drop in guilt (when controlling for Guilt at Time 1, which, based on the ANCOVA, was significantly related to post-manipulation guilt across conditions).

Table 3: ANCOVA Addressing if Experimental Redemption-Manipulation Leads to Differentiated Post-Manipulation Guilt Scores Controlling for Pre-Manipulation Guilt Levels

Source	SS	df	MS	F	*p*	Partial η^2
Initial Guilt Score	591.4	1	591.4	27.05	< .001	.23
Condition	201.2	1	201.2	9.20	.003	.09

As the mean for post-manipulation guilt was lower for participants in the neutral condition relative to the mean for participants in the experimental condition, a between-groups t-test was conducted to see if this difference was significant. In fact, $t(93) = -2.71$, $p = .008$, $\underline{d} = -.55$, it was. These data are generally counter the hypothesis and are addressed in the Discussion.

Discussion

The present study contributes to a growing body of literature that explores the multifaceted nature of self-harm by addressing a lesser-discussed form—hidden or indirect self-harm. Particularly, this study serves to fulfill a research gap between research that shows that guilt has a role in pain tolerance (Bastian et al., 2011), and research that posits that individuals will be willing to engage in "self-punishment" (social denied pleasure) only if they cannot redeem for their actions (Nelissen & Zeelenberg, 2009).

The bifurcated model of redemption suggests two different psychological routes subsequent to guilt: redemption and self-punishment. When individuals feel guilt but have no access to redemption, they try to reduce this unpleasantness by imposing suffering upon themself, for instance, physical pain or symbolic atonement (Bastian et al., 2011; Inbar et al., 2013; Nelissen & Zeelenberg, 2009). Conversely, when a redemptive path is present, individuals

will more likely pursue reparation or prosocial behavior, which reduces the need for self-punishment.

The study directly tested this model by comparing the difference between the endurance of an aversive stimuli (unpleasant audio) of individuals who had gotten a chance for redemption and those who had not following a guilt manipulation. Notably, participants were also randomly assigned to a redemption condition or a neutral one. In line with the bifurcated model, those in the neutral condition—where no redemptive possibility was provided—voluntarily subjected themselves to the aversive noise for considerably longer periods of time than those in the redemption condition. This finding supports the hypothesis that redemption can reduce the need for self-inflicted harm, even when that harm is metaphorical or non-physical in nature.These results mirror earlier studies that, when redemptive opportunities are not available, people punish themselves using discomfort as an expression of symbolic atonement (Inbar et al., 2013; Nelissen & Zeelenberg, 2009).

Further investigation looked into whether there was emotional relief through self-punishment. ANCOVA results indicated that there was a reduction of self-reported guilt in both groups after manipulation, supporting the contention that self-punishment reduces guilt. However, paradoxically, the neutral state—the one that had received more aversive stimuli—showed greater guilt reduction than the redemption state after controlling for baseline guilt. There are two probable causes of this effect: It may be explained by how participants on the conscious level report a lower level of guilt but unconsciously feel more inclined to endure pain longer. Secondly, it may be a result of the neutralizing effect of the neutral condition which could have acted as a distractor task. Participants writing about a daily-life event (trip to grocery store) for 10 minutes may have led them to think less about their guilty actions relative to those who

were tasked with writing content that directly relates to a self-perceived transgression (even if it is in an apology-based manner).

This suggests that, although self-inflicted pain is not perfect or even preferable, it may under certain conditions function as a compensatory coping alternative in the case of unavailable redemption opportunities. Furthermore, the reduction in reported guilt after participants endured the aversive audio supports the second hypothesis and aligns with previous literature suggesting that engaging in self-harming acts can reduce guilt (Bastian et al., 2011). Consistent with the bifurcated model, the experiments confirm the hypothesis that redress repressions are situation-specific: participants who are not permitted redemption relapse to punishment of oneself, whereas participants who are allowed redemption options are less dependent on self-punition.

These results also align with prior research on the psychological function of self-punishment in alleviating guilt. Nelissen and Zeelenberg (2009) previously found that self-punishment serves as a signal of remorse and may help repair one's moral self-concept. Additionally, Bastian et al. (2011) found that individuals who were reminded of past immoral acts were more willing to endure physical pain, suggesting that experiencing pain can, in some cases, serve as a self-imposed penance that reduces psychological distress. This study extends these findings to a subtler domain: it suggests that hidden self-harm, such as enduring an aversive sound, may also serve as a mechanism to reduce guilt when other, more socially acceptable forms of redemption are unavailable.

This behavior can be understood through the lens of cognitive dissonance theory (Festinger, 1957). When individuals act in ways that contradict their internal moral compass—such as causing harm to others—they experience psychological discomfort. If no opportunity for repair or atonement is available, individuals may resort to punishing themselves in other ways to

restore internal equilibrium. Furthermore, this study establishes that the Dobby Effect—self-punishment arising from the desire to atone for one's actions in the absence of external redemption—also translates to non-traditional forms of self-harm.

The choice of aversive auditory stimulus as a proxy for hidden self-harm behavior is also noteworthy. Unlike traditional measures of NSSI that involve visible physical pain, this stimulus functions symbolically—it does not leave scars, but it is unpleasant enough to represent discomfort that is endured willingly. This mimics real-life scenarios where individuals engage in emotionally or physically taxing behaviors—overworking, overexercising, enduring toxic relationships—not as a conscious act of self-injury but as a means of emotional regulation or penance (Green et al., 2017; Turp, 2002).

Turp (2002) emphasized that many culturally sanctioned behaviors, such as extreme productivity or self-neglect in the name of discipline or devotion, may conceal a deeper emotional dysfunction. The current studies' findings support this view, suggesting that even socially acceptable or normalized forms of discomfort may be driven by the same psychological mechanisms as more visible forms of self-harm. These actions often go unnoticed by others because they are not dramatic or violent—but they may still serve a compensatory psychological function.

It is also important to contextualize these findings within broader cultural frameworks. As discussed in the literature review, religious and societal narratives frequently link suffering with redemption (Mathew, 2016; Whitman, 2007). Various cultures—Christianity, Hinduism, Islam—hold the belief that suffering leads to atonement. This cultural belief may reinforce the idea that one must go through discomfort or pain in order to relieve or absolve themselves of their

wrongdoing. This could explain why some individuals may subconsciously choose to endure suffering, even in subtle forms, when no alternative path to redemption is available.

Moreover, this study gives way to an important conversation about the importance of recognizing and validating these non-traditional forms of self-harm. Most mental health professionals often focus on visible indicators of distress. However, the psychological cost of hidden self-harm may be just as profound, especially when these behaviors are repeated over time and become part of an individual's coping mechanisms. As such, therapeutic interventions could benefit from broadening the definition of self-harm and actively exploring covert patterns of self-punishment with clients.

Limitations

While this study offers important insights into the psychological mechanisms underlying hidden self-harm, several limitations should be acknowledged. The participant pool consisted of undergraduate students from a single university, which limits the generalizability of the findings. The sample lacked diversity in age, educational background, and cultural upbringing—all of which may influence how guilt and redemption are experienced. The act of listening to an aversive audio stimulus, while ethically appropriate and measurable, is still a proxy for hidden self-harm. It does not fully capture the complexity, duration, or real-life emotional nuance of culturally sanctioned self-harming behaviors (e.g., overworking, toxic relationships). Thirdly, the use of self-report measures like the GSQ-8 may have introduced social desirability bias, especially when discussing guilt and shame—emotions that are inherently sensitive and stigmatized. While the redemption prompt was useful in manipulating the emotional state of the participants, the subjective interpretation of "redemption" may have varied widely among individuals, influencing the results in unpredictable ways. Lastly, the effects of guilt and

redemption were measured in a short experimental window. The long-term implications of these emotional states on actual behavior may produce different results.

Taken together, these findings not only offer empirical support for the psychological mechanisms underlying hidden self-harm but also emphasize the need to understand the social and moral underpinnings that may drive individuals toward such behaviors. While the aversive auditory stimulus used in this study does not equate to long-term self-destructive behavior, it provides a safe and ethically appropriate window into the internal motivations that might lead people to engage in more enduring and damaging self-harming activities in real life.

Future research could build on this work by examining more naturalistic forms of hidden self-harm, such as self-sabotage in relationships or chronic procrastination, and investigating how emotions like guilt, shame, and self-worth intersect with these patterns. It may also be valuable to explore whether different kinds of redemption opportunities—social, spiritual, or relational—have varying effects on individuals' tendencies toward self-punishment.

Ultimately, this research challenges the traditional understanding of self-harm and calls for a more nuanced understanding of what constitutes as *self-harm*.

References

Bastian, B., Jetten, J., & Fasoli, fabio. (2011). Cleansing the soul by hurting the flesh. *SAGE Publications*, *22*(3), 334–335. https://doi.org/10.1177/0956797610397058 open_

Baumeister, R. F., Stillwell, A. M., & Heatherton, T. F. (1994). Guilt: An interpersonal approach. *Psychological Bulletin, 115*(2), 243–267. https://doi.org/10.1037/0033-2909.115.2.243

Blasco-Fontecilla, H., Fernández-Fernández, R., Colino, L., Fajardo, L., Perteguer-Barrio, R., & de Leon, J. (2016). The addictive model of self-harming (non-suicidal and suicidal) behavior. *Frontiers in Psychiatry*, *7*. https://doi.org/10.3389/fpsyt.2016.00008

Caplovitz-Barrett, K. (1995). A functionalist approach to shame and guilt. In J. P. Tangney, & K. W. Fischer (Eds.), Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride. New York: The Guilford Press.

Green, J. D., Hatgis, C., Kearns, J. C., Nock, M. K., & Marx, B. P. (2017). The direct and indirect self-harm inventory (dish): A new measure for assessing high-risk and self-harm behaviors among military veterans. *Psychology of Men & Masculinity*, *18*(3), 208–214. https://doi.org/10.1037/men0000116

Hawton, K., Saunders, K., Topiwala, A., & Haw, C. (2013). Psychiatric disorders in patients presenting to hospital following self-harm: A systematic review. *Journal of Affective Disorders*, *151*(3), 821–830. https://doi.org/10.1016/j.jad.2013.08.020

Himelein-Wachowiak, M., Giorgi, S., Kwarteng, A., Schriefer, D., Smitterberg, C., Yadeta, K., Bragard, E., Devoto, A., Ungar, L., & Curtis, B. (2022). Getting “clean” from nonsuicidal self-injury: Experiences of addiction on the subreddit r/selfharm. *Journal of Behavioral Addictions*, *11*(1), 128–139. https://doi.org/10.1556/2006.2022.00005

Hooley, J. M., Ho, D. T., Slater, J., & Lockshin, A. (2010). Pain perception and nonsuicidal self-injury: A laboratory investigation. *Personality Disorders: Theory, Research, and Treatment*, *1*(3), 170–179. https://doi.org/10.1037/a0020106

Hoppen, T. H., Schlechter, P., Arntz, A., Rameckers, S. A., Ehring, T., & Morina, N. (2022). A brief measure of guilt and shame: Validation of the Guilt and Shame Questionnaire (GSQ-8). *European Journal of Psychotraumatology*, *13*. https://doi.org/10.1080/20008066.2022.2146720

Inbar, Y., Pizarro, D. A., Gilovich, T., & Ariely, D. (2013). Moral masochism: On the connection between guilt and self-punishment. *Emotion, (1),* 14–18. https://doi.org/10.1037/A0029749

Nelissen, R. M. A. (2012). Guilt induced self-punishment as a sign of remorse. *Social Psychological and Personality Science, 3*(2), 139-144. https://doi.org/10.1177/1948550611411520

Nelissen, R. M. A., & Zeelenberg, M. (2009). When guilt evokes self-punishment: Evidence for the existence of a Dobby Effect. *Emotion*, *9*(1), 118–122. https://doi.org/10.1037/a0014540

Nock, M. K. (2010). Self-Injury. *Annual Review of Clinical Psychology*, *6*, 339–363. https://doi.org/10.1146/annurev.clinpsy.121208.131258

Nock, M. K., Joiner, T. E., Gordon, K. H., Lloyd-Richardson, E., & Prinstein, M. J. (2006). Non-suicidal self-injury among adolescents: Diagnostic correlates and relation to suicide attempts. *Psychiatry Research*, *144*(1), 65–72. https://doi.org/10.1016/j.psychres.2006.05.010

Sheehy, K., Noureen, A., Khaliq, A., Dhingra, K., Husain, N., Pontin, E., Cawley, R., & Taylor, P. J. (2019). An examination of the relationship between shame, guilt and self-harm: A systematic review and meta-analysis. *Clinical Psychology Review, 73*, 101779. https://doi.org/10.1016/j.cpr.2019.101779

Singhal, A., Ross, J., Seminog, O., Hawton, K., & Goldacre, M. J. (2014). Risk of self-harm and suicide in people with specific psychiatric and physical disorders: Comparisons between disorders using English national record linkage. *Journal of the Royal Society of Medicine*, *107*(5), 194–204. https://doi.org/10.1177/0141076814522033

St. Germain, S. A., & Hooley, J. M. (2012). Direct and indirect forms of non-suicidal self-injury: Evidence for a distinction. *Psychiatry Research*, *197*(1–2), 78–84. https://doi.org/10.1016/j.psychres.2011.12.050

Stänicke, L. I. (2021). The punished self, the unknown self, and the harmed self – Toward a more nuanced understanding of self-harm among adolescent girls. *Frontiers in Psychology*, *12*, 543303. https://doi.org/10.3389/fpsyg.2021.543303

Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). Moral emotions and moral behavior. *Annual Review of Psychology, 58*, 345–372. https://doi.org/10.1146/annurev.psych.56.091103.070145

Turner, B. J., Chapman, A. L., & Layden, B. K. (2012). Intrapersonal and interpersonal functions of non-suicidal self-injury. *Psychiatry Research, 200*(2-3), 372-380. https://doi.org/10.1016/j.psychres.2012.06.036

Turp, M. (2002). *Hidden Self-harm: Narratives from Psychotherapy*. Jessica Kingsley Publishers.

Victor, S. E., Glenn, C. R., & Klonsky, E. D. (2012). Is non-suicidal self-injury an “addiction”? A comparison of craving in substance use and non-suicidal self-injury. *Psychiatry Research*, *197*(1), 73–77. https://doi.org/10.1016/j.psychres.2011.12.011

Zald, D. H., & Pardo, J. V. (2002). The neural correlates of aversive auditory stimulation. *NeuroImage*, *16*(3), 746–753. https://doi.org/10.1006/nimg.2002.1115

**This section was partly adapted from a paper originally written for a course (Spring 2025, PSY5XXX)

Please note that the writing found herein was written completely by myself. I did not copy and paste any of it from the internet or from any other source. Further, I did not use ChatGPT or any other AI-writing software. I have put all the content into TRACEGPT and the score was 0% likely to have been written by AI.

Appendix A: Materials Presented to Participants

Demographic questions—

1. Age (specify in the blank)

2. Gender identity (male/female/non-binary/not mentioned above (specify in blank))

Guilt-inducing prompt – "Think of a time where you felt guilty about your actions in regard to another person. Please make sure that the example you describe is somewhat benign as opposed to something that you perceive as very severe. Describe the circumstances around the situation, focusing on how you felt. Write story of what happened to make you feel guilty. Please give as much details as needed (note that you have 10 minutes to write this content)."

Redemption prompt – "If given the opportunity, how would you make up for the actions you feel guilty about? Write in detail about how you would feel if you are forgiven."

Neutral prompt – "describe the details of your most recent trip to a grocery store."

The Guilt and Shame Questionnaire (GSQ-8) (Hoppen et al., 2022)

1. I feel embarrassed
2. I feel guilty
3. I feel regret
4. I feel disgusting
5. I feel remorse
6. I feel humiliated
7. I feel ashamed

8. I feel intense guilt

Informed consent statement—“Hello, welcome to the lab. Thank you for taking the time out and coming to participate. Before we start, I would like to confirm whether you are above the age of 18, and if you have any hearing/auditory issues.”

“During your participation you will be required to engage in writing prompts, wherein you will have to type your response in the computer. I request you to please answer the writing prompts as honestly as you can. You will also be asked to respond to a survey/questionnaire three times. Your responses are completely confidential. You will also be asked to listen to an unpleasant soundtrack. You will have full control over when you want to stop listening to the sound. Please note that the experiment does not include any stimulus that is harmful. All the procedures will be facilitated through the Qualtrics form on the computer. Should you have any questions, I will be available to answer at all times. You are free to stop if at any point you feel uncomfortable with continuing with the experiment. Please note that there will be no penalty if you choose to cease participation. If you are a SUNY New Paltz psychology student, you will unconditionally gain 5 SONA credits. Most importantly, your data will remain completely confidential and will not be disclosed. Do you have any questions before we begin? You will be informed of the complete aims of the study once you have completed participation. Is that something you are okay with? * If so, please start with the experiment using the form on the computer in front of you. Please inform the researcher once you are at the audio phase of the study.”

The researcher remains blind to the condition assigned to the participant and interacts with them only when they reach the audio phase of the study, barring any questions asked from the participant. Once the participant is at the audio phase, they are then instructed—“You will now

be given a set of headphones with an unpleasant audio. Please press the arrow with the mouse as soon as you want to stop listening to the audio."

Disagreement of the participant is not anticipated. However, in case participant declines to participate without knowing the aims of the study, they will be told—"This study aims to understand the relationship between whether people have a chance to apologize for some transgression and how they deal with aversive stimuli."

Debriefing script—"Thank you for your participation in the study. Your contribution will help us better understand the relationship between whether people have a chance to apologize for some transgression and how they deal with aversive stimuli. The study included a redemption opportunity condition or a no-redemption opportunity condition for participants after they wrote about a guilt inducing event. We predict that participants who were given a shot at redemption would listen to the aversive stimuli audio for a shorter duration as compared to participants given no such opportunity. Essentially, we aim to see whether guilt and redemption will play a role in endurance of an unpleasant stimulus. In case you feel any discomfort please feel free to make use of campus resources like the peer support center: Oasis haven (Lenape Hall), or the psychological counseling center situated on campus."