Who Wants to Wash Away their Sins? Guilt and Shame Proneness and Behavioral Moral Cleansing Endorsement: a Pilot Study

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Abstract: *In our pilot cross-sectional study, we aimed to explore the associations between guilt and shame proneness and moral cleansing endorsement. Our sample consisted of 484 adults (73.3% females), aged 18 and 53 (M=24.09, SD=7.32). We used a novel approach to explore moral cleansing mechanisms, i.e., a two-item scale assessing behavioral cleansing endorsement (one's agreement with the idea that people must "wash away" their immoral acts by acting in ethical ways that would "clean" their moral debt). In addition to the significant associations that we found between moral cleansing endorsement and the guilt and shame proneness dimensions (i.e., negative behavior evaluation, repair action tendencies, negative self-evaluation, and withdrawal action tendencies), results also suggested that moral cleansing endorsement was significantly predicted by overall guilt and shame proneness. More specifically, we found that higher levels of guilt and shame proneness might account for higher moral cleansing endorsement levels. We also found important associations with participants' age: our findings suggested that the higher the age, the higher the endorsement for moral actions aimed to "clean" immoral deeds. Results are discussed in relation to cultural-related factors.*

Keywords: *guilt, shame, moral behavior, moral cleansing, age.*

1. Introduction

How tempting is the opportunity to wash away your sins, following an immoral act? Philosophers, theologists, and many psychologists tried to answer this question for a along the time. Moral psychology, in particular, offers several pathways to understand the potential answer to the questions related to the psychological mechanisms that underlie people's need to restore their moral balance following unethical behaviors such as cheating or lying. The cognitive mechanisms associated with moral cleansing processes have been explored in a growing number of studies. Most of them clearly differentiate between moral cleansing and moral licensing but also highlight the connection between them. For example, Harkrider et al. (2013) explored the effects of incentives and consequences of one's actions on moral cleansing, suggesting that "although moral cleansing serves a positive role by reaffirming a person's moral identity, too much affirmation can actually cause people to relax their moral strivings and subsequently engage in even more unethical behavior, including cheating" (p.133).

Moral licensing (ML) is a cognitive reasoning by which less ethical or morally questionable behaviors are justified using previously performed moral actions (Blanken et al., 2015). This specific effect was generally explored in various experimental designs that generally suggested that ML mechanisms generally relax one's moral standards and allow individuals to engage in subsequent unethical or morally ambiguous behaviors (e.g., Ahmad et al., 2020; Engel & Szech, 2020; Loi et al., 2020; Mullen & Monin, 2016; Monin & Miller, 2001). In contrast to moral licensing, moral cleansing (MC) outlines a similar rational mechanism, with the same goal of rebalancing the inner moral balance: a moral behavior is subsequently performed to compensate for previous immoral behavior (e.g., Ding et al., 2016; Gilchrist & Schnall, 2018; Harkrider et al., 2013; O'Connor et al., 2020). MC describes the compensatory behavior people engage in to reaffirm one's core values and reduce the psychological discomfort following immoral deeds (Ayal & Gino, 2012; Harkrider et al., 2013; Sachdeva et al., 2009).

Moral cleansing is one of the central concepts of the Moral Balance Model (Nisan & Horenczyk, 1990), which postulates that the individual's current moral status influences their moral decisions. Recent moral actions may offer individuals a justification for future egoistic behavior, while recent egoistic behaviors may encourage the individual to perform an altruistic act to balance selfish and altruistic acts. Individuals may strive for the highest achievable level of moral self-worth, although they may often engage in

immoral, self-centered acts to recover specific losses. This self-regulation pattern reflects an interplay between two tendencies: being selfish after doing something altruistic and being altruistic after doing something selfish (Brañas-Garza et al., 2013). The former tendency is conceptualized in moral psychology as moral cleansing, while the latter is conceptualized as moral cleansing (MC). MC broadly refers to individuals' actions when their moral self-worth is under threat to reaffirm their identity as moral individuals. While moral licensing may be helpful for the individual but potentially harmful for others, since it encourages an individual to engage in immoral acts, MC may be beneficial for both parties since altruism restores one's self-worth and may also be helpful for society as a whole (Sachdeva et al., 2009).

West and Zhong (2015) identified three types of MC: "restitution cleansing" represents an attempt to eliminate the direct cause of a perceived immoral threat; "behavioral cleansing" consists of a less direct approach through which individuals try to restore their moral self-worth by engaging in moral behaviors in unrelated domains; finally, "symbolic cleansing" defines the use of metaphorical actions and rituals (e.g., church confessions, physical punishments), in order to restore one's moral self-worth. In the current study, we will refer to behavioral cleansing endorsement, i.e., one's agreement with the idea that people must "wash away" their immoral acts by acting in ethical ways that would "clean" their moral debt (Gneezy et al., 2014).

A considerable number of studies examined MC mechanism and their interaction with other psychological variables. Ding et al. (2016) identified recalled immorality as a significant predictor of prosocial behavior, the relation between the two variables being mediated by guilt. Furthermore, the pathways between recalled immorality and the other variables were moderated by moral identity. In two other studies (e.g., Liao et al., 2018), the perpetuation of abusive behaviors by supervisors led to an increased experience in guilt, which led to engagement in constructive leadership behaviors to compensate for the perceived loss of moral credits. Inbar et al. (2013) reported that participants who wrote about a guilt-inducing memory inflicted stronger electric shocks on themselves, which in turn, led to lower levels of guilt. Other studies (Meub et al., 2016) suggest that the participants were most likely to cheat and least likely to resort to MC when cheating was done at the experimenter's expense. On the contrary, participants were least likely to cheat and most likely to resort to MC when cheating was done at other participants' expense. However, Rotella and Barclay (2020) failed to replicate MC in an online survey, although the experimental manipulation was successful. Furthermore, their results suggested a pattern of moral

consistency rather than a pattern of alternation between moral and immoral acts, as the Moral Balance Model would suggest.

Guilt and Shame proneness

Guilt and shame are classified as negative legacy emotions, i.e., emotions that restrain the individual from performing specific actions or express certain emotions or thoughts (Breggin, 2015). Guilt and shame are considered self-conscious emotions, i.e., emotions that require self-awareness and self-representation. Self-evaluation processes are activated when individuals become aware that they managed (or failed) to live up to a particular ideal that they endorse (Tracy & Robins, 2004). Although the spectrum of self-conscious emotions draws us closer to the specifics of guilt and shame, this classification may also include other emotions (e.g., embarrassment or pride). Therefore, we distinguish between shame and guilt and other self-conscious emotions by highlighting that individuals are negative emotions when they fail to meet specific moral or social standards (Orth et al., 2006).

However, guilt and shame involve a large spectrum of emotions and cognitions, generating various definitions and measurements. For example, in 2010, Tilghman-Osborne et al. identified twenty-three conceptualizations of shame and guilt. Their overwhelming majority defined guilt as the result of one's actions or inactions that led to what the actors perceived as moral transgressions. Furthermore, most conceptualizations associated guilt to specific situational contexts suggested that guilt is a trait-like feature. A consensus regarding guilt's role as an adaptive or maladaptive emotion has not yet been reached, and the current research literature offers results that further suggest this divergence. Although several similarities between the two emotions were identified, guilt and shame elicit different responses and approaches to moral transgressions. Guilt determines individuals to condemn specific immoral behaviors in which they engaged and attempt to repair the damage they caused.

On the other hand, shame elicits self-condemnation that devalues the person as a whole (Zhu et al., 2019). Elison's (2005) conceptualized shame as a particular emotion elicited by perceived devaluation and guilt as an individual's responsibility for immoral action. Shame seems to play a central role in people's understanding of their role as social agents, whose moral or immoral behavior may be observed, evaluated, rewarded, or punished by others. Societies engage in altruistic punishment, i.e., sanctions that discourage individuals from defecting from altruistic norms. Shame may

appear as a consequence of such punishments, which adds additional costs for defection, thus, discouraging individuals from defecting in the future (Jaffe, 2008).

Finally, the two primary approaches in the research of guilt and shame describe contrasting approaches. The Social-Adaptive Perspective presents guilt as an adaptive emotion that motivates individuals to correct their wrongdoings, while shame is presented as a maladaptive emotion that pushes individuals towards evasion and concealment of immoral behaviors. The Functionalist Perspective states that both guilt and shame may be useful or maladaptive emotions, depending on different contexts (Dempsey, 2017). Furthermore, both guilt and shame may be evolutionary adaptive emotions. Shame may be more purposeful for an individual's adaptation, considering its role in hiding unacceptable behaviors, while guilt may determine individuals to adhere to the group's moral norms and correct their transgressions from those norms (Shen, 2018). Carpenter et al. (2016) suggested that trait self-forgiveness may be positively associated with guilt-proneness and negatively associated with shame-proneness. However, guilt-proneness predicted self-forgiveness only by indirect means, through the activation of motivational tendencies. Burmeister et al. (2019) identified significant positive associations between knowledge hiding and feelings of guilt and shame. Furthermore, organizational citizenship behavior was positively predicted by guilt and negatively predicted by shame.

Regarding gender differences in levels of perceived guilt and shame, Watson et al. (2016) reported no significant differences between males and females in levels of perceived guilt or shame. On the contrary, Borelli et al. (2017) reported significantly higher levels of guilt due to work interfering with family life among women compared to men. Additionally, Gilchrist et al. (2020) suggested that physical self-concept as a significant predictor of anticipated shame and guilt, gender serving as a significant moderator only for anticipated shame, with women reporting significantly higher levels of anticipated shame.

2. The present study

A growing number of studies investigated the role of self-conscious negative emotions in activating the MC mechanism. For instance, Zhang et al. (2017) reported that upward moral comparison predicted a higher level of guilt, which led to a stronger motivation for prosocial behaviors. Furthermore, moral identity internalization moderated the relationship between upward comparison and guilt and the indirect effect of upward

moral comparison on prosocial behavior intention through the level of guilt. In a field experiment conducted by Ilies et al. (2013), awareness of high levels of negative behavior at work was associated with guilt, which subsequently led to higher organizational citizenship behavior levels to reduce the level of experienced guilt. The results of two experiments conducted by Cougle et al. (2012) suggest that physical cleansing, in the form of handwashing, may be increased by a stronger sense of guilt, although this form of cleansing will not decrease the perceived guilt. Cui et al. (2020) reported that physical cleansing was followed by a higher level of expected guilt across four experiments, which in turn led to a higher endorsement of pro-environmental travel choices. Recent studies suggested that the mere observation of physical cleansing (such as physical punishment) may reduce someone's sense of guilt. Bocian & Baryla (2020) reported that the participants' sense of guilt decreased after they were

However, in the present study, we focused on moral cleansing endorsement and guilt and shame proneness, investigating their potential association. Contrary to previous findings from studies that generally used an experimental approach (e.g., Zhong & Liljenquist, 2006), we ought to examine these mechanisms using a two-item scale that directly addressed participants' endorsement for moral cleansing behavior, i.e., participants' approval towards the acts meant to "wash away" one's unethical behavior. Our primary assumption was that we would find a strong and positive association between guilt and shame proneness and participants' moral cleansing endorsement, given previous findings that highlighted similar correlations (e.g., Ding et al., 2016).

3. Method

2.1. Participants and Procedure

Our sample consisted of 484 Romanian adults (73.3% females), aged between 18 and 53 (*M*=24.09, *SD*=7.32). Their participation was voluntary, following an informed consent that presented them with details related to their answers' anonymity and confidentiality and the fact that they can retire from the study at any time. Data collection took place in the late fall of 2020, using an online survey advertised through different social media platforms. This study's protocol was designed in concordance with ethical requirements specific to the Faculty where the authors are affiliated. All participants voluntarily participated in the study and gave written informed consent following the Declaration of Helsinki and the national laws from Romania

regarding the ethical conduct in scientific research, technological development, and innovation

2.2. Measures

We used the 16-item Guilt and Shame Proneness Scale (GASP) (Cohen et al., 2011) to assess participants' guilt and shame proneness (GSP). Each item of the scale contains a scenario describing a shameful or immoral. The participants are asked to indicate the likeliness that they would feel guilt or shame in each scenario, on a Likert scale ranging from 0 (very unlikely) to 7 (very likely). The scale contains two dimensions, each of them including two factors. The guilt dimension contains the *negative behavior evaluation* factor (four items, e.g., "After realizing you have received too much change at a store, you decide to keep it because the salesclerk doesn't notice. What is the likelihood that you would feel uncomfortable about keeping the money?") and *the repair action tendencies* factor (four items, e.g., "You are privately informed that you are the only one in your group that did not make the honor society because you skipped too many days of school. What is the likelihood that this would lead you to become more responsible about attending school?"). The shame dimension contains *the negative self-evaluation* (four items, e.g., "You rip an article out of a journal in the library and take it with you. Your teacher discovers what you did and tells the librarian and your entire class. What is the likelihood that this would make you would feel like a bad person?"), and *the withdrawal action tendencies* factor (four items, e.g., "After making a big mistake on an important project at work in which people were depending on you, your boss criticizes you in front of your coworkers. What is the likelihood that you would feign sickness and leave work?"). A higher overall score indicated a higher level of guilt/shame proneness. Cronbach's Alpha indicated high reliability (0.81) of the scale.

We assessed behavioral moral cleansing endorsement using two items: "If someone committed a bad deed, they should do something good, to "wash away" their sins.", and "If someone committed a bad deed, they should search for occasions to do a good deed, to restore their moral balance". The participants were asked to indicate their agreement level with each statement on a Likert scale from 1 (totally disagree) to 5 (totally agree). Higher scores indicated a higher level of moral cleansing endorsement.

2.3. Results

We used the 24.0 version of the IBM SPSS program to analyze our data. The descriptive statistics of each variable are reported in Table 1. To provide a basic statistical summary of the data and proceed with subsequent

data analysis, we conducted descriptive analysis and normality tests (i.e., Shapiro-Wilk tests; 1965). Following this analysis, we decided to conduct parametric analyses.

Table 1: Descriptive statistics of the main variables (N=473)

	M	*SD*	*Mdn*	*Min*	*Max*
Moral cleansing (MC)	7.31	2.51	83.00	2	10
Guilt and shame proneness (GSP)	65.66	12.90	67.00	28	91
Guilt	43.92	8.85	46.00	18	56
Guilt - *negative behavior evaluation* (NBE)	21.82	5.19	23.00	0	28
Guilt - *repair action tendencies* (RAT)	22.09	4.56	23.00	8	28
Shame	35.76	8.63	35.00	10	56
Shame - *negative self-evaluation* (NSE)	21.19	5.22	22.00	2	28
Shame - *withdrawal action tendencies* (WAT)	14.55	5.90	15.00	0	28

The Pearson correlation results are summarized in Table 2. We found significant correlations between moral cleansing endorsement and all main variables, including participants' age. For example, results suggested that the higher the age, the higher the MC endorsement. Also, guilt proneness significantly and strongly correlated with one of the Shame proneness factors (NSE) and weakly correlated with WAT. The negative behavior evaluation factor [guilt] had a medium correlation with Shame Proneness and a strong correlation with negative self-evaluation [shame]. Furthermore, the repair action tendencies dimension [guilt] was significantly associated with both shame factors, i.e., negative self-evaluation and withdrawal action tendencies. Interestingly, age was significantly and positively associated only with MC and negative behavior evaluation.

Table 2: Pearson Correlations between the main variables (N=473)

	M	*SD*	1	2	3	4	5	6	7	8
1.MC	7.31	2.51	-							
2.GSP	65.66	12.90	.33**	-						

	M	SD	1	2	3	4	5	6	7	8
3.Guilt	43.92	8.85	.29**	.88**	-					
4.NBE	21.82	5.19	.21**	.79**	.91**	-				
5.RAT	22.09	4.56	.32**	.81**	.89**	.64**	-			
6.Shame	35.76	8.63	.26**	.80**	.49**	.43**	.45**	-		
7.NSE	21.19	5.22	.23**	.79**	.66**	.62**	.58**	.74**	-	
8.WAT	14.55	5.90	.17**	.47**	.12**	.08	.14**	.80**	.20**	-
9.Age	24.03	7.45	.09*	.03	.04	.09*	-.02	.02	-.01	.04

*$p<0.05$; **$p<0.01$ (2-tailed);

Note: MC = moral cleansing; GSP = Guilt and shame proneness; NBE= negative behavior evaluation; RAT = repair action tendencies; NSE = negative self-evaluation; WAT = withdrawal action tendencies.

To deepen our results, we also conducted a simple linear regression test, using guilt and shame proneness and age as predictors for moral cleansing. The proposed regression model was significant (F (2;481) = 30.92; $p<0.001$), though guilt and shame proneness was a significant predictor (β = .325, $p<.001$), while age was marginally significant (β =.07, $p=.07$). Finally, T-test results suggested a significant difference between males and females on overall Guilt and Shame Proneness, female participants (*M*=66.96) reporting higher GSP levels (*t*=-3.55; $p<.001$) than male participants (*M*=61.93). Regarding the two factors of Guilt Proneness, female participants reported higher scores on both negative behavior evaluation and repair action tendencies. By further exploring the two factors of Shame Proneness, results suggested that female participants scored higher on both factors (negative self-evaluation and withdrawal action tendencies) (see Table 3).

Table 3: Independent Sample T-test results

	Gender		
	Male (*N*=122)	Female (*N*=351)	
	M (SD)	*M (SD)*	*t*
Moral cleansing	7.25 (2.47)	7.33 (2.53)	-0.310

Guilt and shame proneness	61.93 (13.84)	66.96 (12.31)	-3.550**
Guilt	42.03 (9.27)	44.58 (8.62)	-2.761*
Guilt - negative behavior evaluation	20.81 (5.74)	22.18 (4.95)	-2.350
Guilt - repair action tendencies	21.22 (4.60)	22.40 (4.51)	-2.475*
Shame	33.58 (9.96)	36.52 (8.00)	-2.946**
Shame - negative self-evaluation	19.47 (5.91)	21.79 (4.83)	-3.904**
Shame - withdrawal action tendencies	14.10 (6.85)	14.72 (5.53)	-0.902

*p<0.05; **p<0.001;

3. Discussion

Though the moral licensing effect has been explored in a growing number of studies, to our knowledge, investigations were only done by using experimental approaches, and none of them directly investigated people's explicit endorsement for such cleansing actions. In the current study, we proposed a novel approach, using a two-item scale that assessed participants' agreement to the idea that people must wash away their immoral acts by acting in ethical ways that would "wash away their sins". Our results suggested significant associations between participants' overall guilt and shame proneness, as well as their subdimensions, and moral cleansing endorsement. Interestingly, we found significant gender differences and important correlations with participants' age. More specifically, higher levels of guilt and shame proneness accounted for higher levels of moral cleansing endorsement, while female participants reported higher levels of guilt and shame, in line with previous similar results concerning gender differences in shame and guilt (e.g., Borelli et al., 2017; Gilchrist et al., 2020).

Our results suggested that people who generally scored higher on guilt and shame proneness might engage more in compensatory behaviors following immoral actions to reaffirm their core moral values and reduce the subsequent psychological discomfort following their unethical deeds (Ayal & Gino, 2012; Harkrider et al., 2013; Sachdeva et al., 2009). However, it is worth mentioning that both moral cleansing and guilt and shame proneness should be discussed in light of the cultural context of the present research. A series of studies previously explored these dimensions accounting for the potential cultural differences. For example, Arli et al. (2016) identified significant negative associations between guilt-proneness and unethical

consumer behaviors, and this pattern was consistent among both the Australian and the Indonesian participants. Sznycer et al. (2018) reported that shame closely tracked local audiences' devaluation across fifteen small-scale communities worldwide, while Durkee et al. (2019) reported that the status impact of specific personal characteristics was strongly intercorrelated across fourteen nations, and the American participants' reported level of anticipated shame closely tracked the status impact reported by the participants from the other thirteen nations.

Furthermore, Sunar et al. (2020) reported that both English and Turkish participants presented similar patterns of displaying moral emotions in different relational models across three studies. Though it would appear that a reasonable number of studies reported little to no significant influence of culture over guilt and shame proneness, some studies offered seemingly conflicting results. Grey et al. (2018), for example, reported higher levels of guilt-proneness and shame proneness characterized by negative self-evaluation among participants from the United Arab Emirates, compared to Irish participants. Furthermore, the Irish participants reported significantly higher levels of shame characterized by withdrawal tendencies. Onwezen et al. (2014) reported that, although there were no significant differences within collectivistic and individualistic cultures regarding anticipated guilt, and the effect of anticipated guilt on intentions was the same in both cultures, anticipated guilt was more strongly affected by attitudes in individualistic cultures. Considering these findings, we find it reasonable to consider that our results might also be marked by cultural landmarks related to both guilt and shame proneness, as well as morality (and, implicitly, moral cleansing conceptualization), that future studies might want to further explore.

Though using a short scale (i.e., "If someone committed a bad deed, they should do something good, to "wash away" their sins.", and "If someone committed a bad deed, they should search for occasions to do a good deed, to restore their moral balance") to assess moral cleansing endorsement is one of the study's strengths, there are some aspects that need further exploration. For example, a *bad* deed might have different meanings depending on one's personal factors and experience. Additionally, we might have suggested the idea of moral cleansing endorsement by framing participants with physical cleansing ("washing away"), and one's inner moral balance that needs to be restored. Therefore, these aspects need further exploration in future studies for which the current exploratory findings might serve as an important starting point. As suggested by Harkrider et al. (2013), future studies might also consider and explore other personal associated variables and recent events that might account for MC

endorsement. For example, future studies might want to use questions related to participants' personal recent moral or immoral behavior (e.g., When was the last time you acted in an immoral/unethical way?).

Despite the current research's limitations, we consider the present exploratory results important for future studies related to moral emotions and their relation with compensatory behaviors, such as those expressed within the moral cleansing framework.

Ethics statement

This study's protocol was designed in concordance with ethical requirements specific to the Faculty of Psychology and Educational Sciences, ”Alexandru Ioan Cuza” University (Iasi, Romania) before beginning the study and supervised by Alexandra Maftei. All participants voluntarily participated in the study and gave written informed consent following the Declaration of Helsinki and the national laws from Romania regarding the ethical conduct in scientific research, technological development, and innovation. No animal studies are presented in this manuscript.

Author contribution:

Both authors equally contributed to the present paper.

Conflict of interest / Disclosure statement

The authors declare no financial interests/personal relationships, which may be considered as potential competing interests.

Data Availability Statement (DAS):

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

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References

Ahmad, M. G., Klotz, A. C., & Bolino, M. C. (2020). Can good followers create unethical leaders? How follower citizenship leads to leader moral licensing

and unethical behavior. *Journal of Applied Psychology, 106*(9), 1374–1390. https://doi.org/10.1037/apl0000839

Arli, D., Leo, C., & Tjiptono, F. (2016). Investigating the impact of guilt and shame proneness on consumer ethics: A cross national study. *International Journal of Consumer Studies*, *40*(1), 2-13. https://doi.org/10.1111/ijcs.12183

Ayal, S., & Gino, F. (2012). Honest rationales for dishonest behavior. In M. Mikulincer & P. R. Shaver (Eds.), *The social psychology of morality: Exploring the causes of good and evil* (pp. 149–166). American Psychological Association. https://doi.org/10.1037/13091-008

Blanken, I., van de Ven, N., & Zeelenberg, M. (2015). A meta-analytic review of moral licensing. *Personality & Social Psychology Bulletin*, *41*(4), 540–558. https://doi.org/10.1177/0146167215572134

Bocian, K., & Baryla, W. (2020). Pain (less) cleansing: Watching other people in pain reduces guilt and sadness but not shame. *Plos one*, *15*(12), https://doi.org/10.1371/journal.pone.0244429

Borelli, J. L., Nelson, S. K., River, L. M., Birken, S. A., & Moss-Racusin, C. (2017). Gender differences in work-family guilt in parents of young children. *Sex Roles*, *76*(5-6), 356-368. https://doi.org/10.1007/s11199-016-0579-0

Brañas-Garza, P., Bucheli, M., Espinosa, M. P., & García-Muñoz, T. (2013). Moral cleansing and moral licenses: experimental evidence. *Economics & Philosophy, 29*(2), 199-212. https://doi.org/10.1017/S0266267113000199

Breggin, P. R. (2015). The biological evolution of guilt, shame and anxiety: A new theory of negative legacy emotions. *Medical hypotheses*, *85*(1), 17-24. https://doi.org/10.1016/j.mehy.2015.03.015

Burmeister, A., Fasbender, U., & Gerpott, F. H. (2019). Consequences of knowledge hiding: The differential compensatory effects of guilt and shame. *Journal of occupational and organizational psychology*, *92*(2), 281-304. https://doi.org/10.1111/joop.12249

Carpenter, T. P., Tignor, S. M., Tsang, J. A., & Willett, A. (2016). Dispositional self-forgiveness, guilt-and shame-proneness, and the roles of motivational tendencies. *Personality and Individual Differences*, *98*, 53-61. https://doi.org/10.1016/j.paid.2016.04.017

Cougle, J. R., Goetz, A. R., Hawkins, K. A., & Fitch, K. E. (2012). Guilt and compulsive washing: Experimental tests of interrelationships. *Cognitive therapy and research*, *36*(4), 358-366. https://doi.org/10.1007/s10608-011-9359-x

Cohen, T. R., Wolf, S. T., Panter, A. T., & Insko, C. A. (2011). Introducing the GASP scale: A new measure of guilt and shame proneness. *Journal of Personality and Social Psychology, 100*(5), 947-966. https://doi:10.1037/a0022641

Cui, Y., Errmann, A., Kim, J., Seo, Y., Xu, Y., & Zhao, F. (2020). Moral Effects of Physical Cleansing and Pro-environmental Hotel Choices. *Journal of Travel Research*, *59*(6), 1105-1118. https://doi.org/10.1177/0047287519872821

Dempsey, H. L. (2017). A comparison of the social-adaptive perspective and functionalist perspective on guilt and shame. *Behavioral Sciences*, *7*(4), 83. https://doi.org/10.3390/bs7040083

Ding, W., Xie, R., Sun, B., Li, W., Wang, D., & Zhen, R. (2016). Why Does the "Sinner" Act Prosocially? The Mediating Role of Guilt and the Moderating Role of Moral Identity in Motivating Moral Cleansing. *Frontiers in psychology*, *7*, 1317. https://doi.org/10.3389/fpsyg.2016.01317

Durkee, P. K., Lukaszewski, A. W., & Buss, D. M. (2019). Pride and shame: Key components of a culturally universal status management system. *Evolution and Human Behavior*, *40*(5), 470-478. https://doi.org/10.1016/j.evolhumbehav.2019.06.004

Elison, J. (2005). Shame and guilt: A hundred years of apples and oranges. *New Ideas in Psychology*, *23*(1), 5-32. https://doi.org/10.1016/j.newideapsych.2005.07.001

Engel, J., & Szech, N. (2020). A little good is good enough: Ethical consumption, cheap excuses, and moral self-licensing. *PloS one, 15*(1), e0227036. https://doi.org/10.1371/journal.pone.0227036

Gilchrist, P. T., & Schnall, S. (2018). The paradox of moral cleansing: When physical cleansing leads to increased contamination concerns. *Journal of behavior therapy and experimental psychiatry, 61*, 38–44. https://doi.org/10.1016/j.jbtep.2018.06.002

Gilchrist, J. D., Solomon-Krakus, S., Pila, E., Crocker, P., & Sabiston, C. M. (2020). Associations between Physical Self-Concept and Anticipated Guilt and Shame: The Moderating Role of Gender. *Sex Roles*, 763-772. https://doi.org/10.1007/s11199-020-01137-x

Gneezy, U., Imas, A., & Madarász, K. (2014). Conscience Accounting: Emotion Dynamics and Social Behavior. *Management Science, 60*(11), 2645-2658. https://doi.org/10.1287/mnsc.2014.1942

Grey, I., Daly, R., Thomas, J., & Marassas, W. (2018). The relationship between shame and guilt: Cultural comparisons between Ireland and the United Arab Emirates. *Mental Health, Religion & Culture*, *21*(3), 221-230. https://doi.org/10.1080/13674676.2018.1455651

Harkrider, L. N., Tamborski, M. A., Wang, X., Brown, R. P., Mumford, M. D., Connelly, S., & Devenport, L. D. (2013). Threats to Moral Identity: Testing the Effects of   Incentives and Consequences of One's Actions on Moral Cleansing. *Ethics & Behavior, 23*(2), 133–147. https://doi.org/10.1080/10508422.2012.714246

Ilies, R., Peng, A. C., Savani, K., & Dimotakis, N. (2013). Guilty and helpful: An emotion-based reparatory model of voluntary work behavior. *Journal of Applied Psychology*, *98*(6), 1051. https://doi.org/10.1037/a0034162

Inbar, Y., Pizarro, D. A., Gilovich, T., & Ariely, D. (2013). Moral masochism: On the connection between guilt and self-punishment. *Emotion*, *13*(1), 14. https://doi.org/10.1037/a0029749

Jaffe, K. (2008). Evolution of shame as an adaptation to social punishment and its contribution to social cohesiveness. *Complexity*, *14*(2), 46-52. https://doi.org/10.1002/cplx.20244

Liao, Z., Yam, K. C., Johnson, R. E., Liu, W., & Song, Z. (2018). Cleansing my abuse: A reparative response model of perpetrating abusive supervisor behavior. *Journal of Applied Psychology, 103*(9), 1039–1056. https://doi.org/10.1037/apl0000319

Loi, T. I., Kuhn, K. M., Sahaym, A., Butterfield, K. D., & Tripp, T. M. (2020). From helping hands to harmful acts: When and how employee volunteering promotes workplace deviance. *The Journal of applied psychology*, *105*(9), 944–958. https://doi.org/10.1037/apl0000477

Meub, L., Proeger, T., Schneider, T., & Bizer, K. (2016). The victim matters–experimental evidence on lying, moral costs and moral cleansing. *Applied Economics Letters*, *23*(16), 1162-1167. https://doi.org/10.1080/13504851.2016.1139674

Monin, B., & Miller, D. T. (2001). Moral credentials and the expression of prejudice. *Journal of Personality and Social Psychology, 81*(1), 33–43. https://doi.org/10.1037/00223514.81.1.33

Mullen, E., & Monin, B. (2016). Consistency Versus Licensing Effects of Past Moral Behavior. *Annual review of psychology*, *67*, 363–385. https://doi.org/10.1146/annurev-psych-010213-115120

Nisan, M., & Horenczyk, G. (1990). Moral balance: The effect of prior behaviour on decision in moral conflict. *British journal of social psychology*, *29*(1), 29-42. https://doi.org/10.1111/j.2044-8309.1990.tb00884.x

O'Connor, K., Effron, D. A., & Lucas, B. J. (2020). Moral cleansing as hypocrisy: When private acts of charity make you feel better than you deserve. *Journal of Personality and Social Psychology, 119*(3), 540–559. https://doi.org/10.1037/pspa0000195

Onwezen, M. C., Bartels, J., & Antonides, G. (2014). Environmentally friendly consumer choices: Cultural differences in the self-regulatory function of anticipated pride and guilt. *Journal of Environmental Psychology*, *40*, 239-248. https://doi.org/10.1016/j.jenvp.2014.07.003

Orth, U., Berking, M., & Burkhardt, S. (2006). Self-conscious emotions and depression: Rumination explains why shame but not guilt is

maladaptive. *Personality and social psychology bulletin*, *32*(12), 1608-1619. https://doi.org/10.1177/0146167206292958

Rotella, A., & Barclay, P. (2020). Failure to replicate moral licensing and moral cleansing in an online experiment. *Personality and Individual Differences*, *161*, 1-4. https://doi.org/10.1016/j.paid.2020.109967

Sachdeva, S., Iliev, R., & Medin, D. L. (2009). Sinning saints and saintly sinners: The paradox of moral self-regulation. *Psychological Science, 20*(4) 523-528. https://doi.org/10.1111/j.1467-9280.2009.02326.x

Shen, L. (2018). The evolution of shame and guilt. *PloS one*, *13*(7), 1-11. https://doi.org/10.1371/journal.pone.0199448

Shapiro, S. S., & Wilk, M. B. (1965). An analysis of variance test for normality (complete samples). *Biometrika, 52*(3), 591–611. https://www.jstor.org/stable/2333709

Sunar, D., Cesur, S., Piyale, Z. E., Tepe, B., Biten, A. F., Hill, C. T., & Koç, Y. (2020). People respond with different moral emotions to violations in different relational models: A cross-cultural comparison. *Emotion, 21*(4), 693–706. https://doi.org/10.1037/emo0000736

Sznycer, D., Xygalatas, D., Agey, E., Alami, S., An, X. F., Ananyeva, K. I., Atkinson, Q. D., Broitman, B. R., Conte, T. J., Flores, C., Fukushima, S., Hitokoto, H., Kharitonov, A. N., Onyishi, I. E., Romero, P. P., Schrock, J. M., Snodgrass, J. J., Sugiyama, L. S., Takemura, K., Townsend, C., Zhuang, J. Y., Aktipis, C. A., Cronk, L., Cosmides, L., & Tooby, J. (2018). Cross-cultural invariances in the architecture of shame. *Proceedings of the National Academy of Sciences*, *115*(39), 9702-9707. https://doi.org/10.1073/pnas.1805016115

Tilghman-Osborne, C., Cole, D. A., & Felton, J. W. (2010). Definition and measurement of guilt: Implications for clinical research and practice. *Clinical Psychology Review*, *30*(5), 536-546. https://doi.org/10.1016/j.cpr.2010.03.007

Tracy, J. L., & Robins, R. W. (2004). " Putting the Self Into Self-Conscious Emotions: A Theoretical Model". *Psychological Inquiry*, *15*(2), 103-125. https://doi.org/10.1207/s15327965pli1502_01

Watson, S. D., Gomez, R., & Gullone, E. (2016). The shame and guilt scales of the test of self-conscious affect-adolescent (TOSCA-A): psychometric properties for responses from children, and measurement invariance across children and adolescents. *Frontiers in psychology*, *7*, 635. https://doi.org/10.3389/fpsyg.2016.00635

West, C., & Zhong, C. B. (2015). Moral cleansing. *Current Opinion in Psychology*, *6*, 221-225. https://doi.org/10.1016/j.copsyc.2015.09.022

Zhang, H., Chen, S., Wang, R., Jiang, J., Xu, Y., & Zhao, H. (2017). How upward moral comparison influences prosocial behavioral intention: Examining the

mediating role of guilt and the moderating role of moral identity. *Frontiers in psychology*, *8*, 1554. https://doi.org/10.3389/fpsyg.2017.01554

Zhong, C. B., & Liljenquist, K. (2006). Washing away your sins: threatened morality and physical cleansing. *Science, 313*(5792), 1451–1452. https://doi.org/10.1126/science.1130726

Zhu, R., Feng, C., Zhang, S., Mai, X., & Liu, C. (2019). Differentiating guilt and shame in an interpersonal context with univariate activation and multivariate pattern analyses. *NeuroImage*, *186*, 476-486. https://doi.org/10.1016/j.neuroimage.2018.11.012