



I forgive myself, now I can study: How self-forgiveness for procrastinating can reduce future procrastination

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ABSTRACT

In the present study, we examined the association between forgiving the self for a specific instance of procrastination and procrastination on that same task in the future. A sample of 119 first-year University students (49 male, 70 female) completed measures of procrastination and self-forgiveness immediately before each of two midterm examinations in their introductory psychology course. Results revealed that among students who reported high levels of self-forgiveness for procrastinating on studying for the first examination, procrastination on preparing for the subsequent examination was reduced. This relationship was mediated by negative affect, such that increased self-forgiveness reduced procrastination by decreasing negative affect. Results are discussed in relation to the impact of procrastination on self-directed negative affect.

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1. Introduction

Procrastination can be broadly defined as the voluntary, need-less delay of an intended course of action past the time most likely to produce the desired performance or successful completion (Lay, 1986; Steel, 2007). University students are perhaps the population most well known for engaging in this type of procrastinatory behavior. It is not uncommon to hear students speak of last-minute, “all-nighters” prior to an important exam or essay deadline. Studies estimate that nearly all students procrastinate at some point, and more than 50% of students procrastinate almost all the time (e.g., Hill, Hill, Chabot, & Barrall, 1978). Such behavior is often thought of as just another part of the university experience, but there are important reasons why procrastination should be considered harmful. For example, research has shown that procrastination can result in poor academic performance (e.g., Steel, 2007), experiencing negative emotions such as shame and guilt about oneself (Fee & Tangney, 2000), depression (e.g., Strongman & Burt, 2000), and negative health behaviors, such as delaying seeking care for health problems (e.g., Sirois, Melia-Gordon, & Pychyl, 2003).

Although there have been a number of different potential causal factors identified in relation to procrastination such as temporal discounting (Pychyl, Lee, Thibodeau, & Blunt, 2000; Steel & Konig, 2006), task aversiveness (e.g., Blunt & Pychyl, 2000; Lay, 1992), fear of failure (e.g., Schouwenburg, 1992), self-handicapping (e.g., Ferrari, 1991; Lay, Knish, & Zanatta, 1992) or personality (e.g., Lay, 1997; Schouwenburg & Lay, 1995; Watson, 2001), each perspective

on procrastination clearly defines it as a self-defeating behavior and a failure of self-regulation. Underscoring this point is how Baumeister and his colleagues (e.g., Baumeister & Heatherton, 1996; Baumeister, Heatherton, & Tice, 1994; Gailliot, Mead, & Baumeister, 2008) have identified procrastination as one instance of a class of self-defeating behaviors (e.g., over-eating, over-spending, problem gambling, sexual promiscuity) that result from self-regulation failure. According to Steel (2007), results from a meta-analysis suggest procrastination might be the quintessential self-regulatory failure.

Two things are particularly important in terms of procrastination as self-regulatory failure. First, across a variety of outcome measures including academic performance (e.g., Steel, 2007), psychological and physiological well-being (see Sirois et al., 2003; Tice & Baumeister, 1997) and even financial security (U.S. Department of Commerce, 2006), there is evidence that procrastination is self-harming. It is clear that a failure to self-regulate to achieve one's goals, as is the case with procrastination, is a transgression against the self, as this self-defeating behavior affects basic indicators of well-being such as health and wealth. Second, in contrast to the self-regulatory failures that lead to such things as substance abuse or over-eating (i.e., approach behaviors), procrastination involves trying to escape or at least delay engaging in a particular action (i.e., an avoidance behavior). People who procrastinate harm themselves by irrationally avoiding an intended task. Consequently, overcoming procrastination requires replacing this avoidance motivation with an approach motivation.

Given that procrastination can be considered a transgression that is harmful to the self, forgiving oneself for procrastinating is likely to be an essential step in effecting motivational change.

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Self-forgiveness can be conceptualized as a series of changes in motivation, in which the motivations to avoid stimuli connected with the transgression and engage in self-punishment are decreased, while the motivation to act benevolently towards oneself increases (Hall & Fincham, 2005). Self-forgiveness thus essentially involves replacing an avoidance motivation with an approach motivation. In the context of our study of students' academic procrastination on examination preparation, we argue that self-forgiveness for procrastination might decrease the negative affect, usually guilt, that is felt for procrastinating on examination preparation. With this reduction in negative affect, it is more likely that students would reduce procrastination on subsequent examination preparation, demonstrating an approach motivation replacing an avoidance motivation. In fact, self-forgiveness for procrastinating may be one of the few appropriate, and necessary, coping strategies available to the individual both in terms of efforts to deal with the negative moods as well as potentially repairing the performance in the future.

1.1. Self-forgiveness

Self-forgiveness has only recently begun to be studied systematically, and there is still a paucity of empirical research on the tendency to self-forgive. Hall and Fincham (2005) argue that there are three essential steps to self-forgiveness. First, one must acknowledge the commission of a transgression against the self and accept responsibility for that transgression. One must then experience feelings of guilt and regret. Finally, one must overcome these feelings (i.e., self-forgiveness), and in doing so, experience a motivational change away from self-punishment towards self-acceptance. For example, Wohl, DeShea, and Wahkinney (2008), showed that for people who experienced the unwanted end to a romantic relationship, increases in self-blame predicted increases in depressive affect. This effect was mediated by self-forgiveness. As self-forgiveness is a positive self-referent attitudinal shift, self-forgiveness undermined negative feelings toward the self.

We argue that self-forgiveness for procrastinating may help people overcome the negative effects of procrastination and encourage a change in behavior. First, by reducing the emotional distress that results from procrastination through self-forgiveness, the individual becomes less likely to avoid the stimulus associated with the affect in the first place (i.e., the task that was delayed). Second, because self-forgiveness is typically accompanied by a vow to change one's behavior in the future (Hall & Fincham, 2005; Tangney, Boone, & Dearing, 2005; Wohl et al., 2008), this encourages the individual to engage in approach behaviors rather than behaviors motivated by avoidance. Thus self-forgiving for procrastinating may make it less likely that the individual will be motivated to avoid unpleasant tasks and more likely that he or she will approach success by procrastinating less in the future.

The purpose of the present study was to investigate the relationship between self-forgiveness and procrastination in a sample of first-year university students. Participants were measured on procrastination and self-forgiveness immediately before both their first and second midterm examinations in their psychology course. Participants were also measured on negative as well as positive affect concerning the outcome of the first examination during an online session held between examinations. We predicted that procrastination prior to the first midterm would interact with self-forgiveness to reduce such behavior prior to the second midterm. We also examined whether self-forgiveness, moderated by first midterm procrastination, would decrease negative affect and increase positive affect related to how they feel about their first midterm. We hypothesized high procrastinators who self-forgave would report the least amount of negative affect. No explicit hypothesis, however, was made about the interactive effect of pro-

crastination and self-forgiveness on positive affect. One possibility is that because self-forgiveness is contingent upon recognition that *harm* has been done to the self, whether or not procrastination has occurred, positive affect should not factor into the equation. It is also possible, however, that since self-forgiveness fosters a positive self-referent attitudinal shift, positive affect about the first midterm exam might be increased. Finally, we investigated whether the relationship between self-forgiveness and procrastination on the second midterm was mediated by affect experienced in relation to the first midterm. We hypothesized that self-forgiveness would interact with procrastination prior to the first midterm to predict lower levels of negative affect, and this in turn would predict lower levels of procrastination for the second midterm. Thus, a mediated-moderation model was tested.

2. Method

2.1. Participants

Participants were recruited from a single section of an introductory psychology course at Carleton University. A total of 312 students completed the questionnaire just prior to the first midterm. Of this total, 134 students completed the subsequent two sessions (76 female, 58 male) and ranged in age from 16 to 56 years ($M = 20.43$, $SD = 5.06$). Participants received 1% in grade-raising credit towards their introductory psychology course for completing all three sessions.

2.2. Procedure

At the beginning of the semester, information about the study was given to students in class. Immediately before the first midterm, a questionnaire was distributed to the students that contained two short measures: procrastination, and self-forgiveness for procrastinating. Each item in the questionnaire was rated on a seven-point Likert-type scale. Midway between their first and second midterm (and after students received their first midterm grade), participants were asked to indicate whether they believed their procrastination had influenced performance on the first exam. They also completed scales that assessed both positive and negative affect concerning their performance on the first exam. Lastly, just prior to their second midterm, participants were asked the extent to which they procrastinated with regard to their studying for the second midterm. After this final session, participants were fully debriefed.

2.3. Measures

2.3.1. Procrastination

Three-items measured procrastination prior to the first ($\alpha = .84$) and second ($\alpha = .84$) midterm. These items were: "I put off studying until the last minute," "I delayed preparing for the exam by doing other, less important things instead," and "I began studying much later than I intended to" anchored at one (*strongly disagree*) and seven (*strongly agree*). These items were drawn from existing measures of procrastination to maintain as much content and construct validity as possible, particularly with regards to the irrationality ("less important things instead") and violation of intention ("much late than I intended to") that are central to the definition of procrastination (e.g., Lay, 1986; Steel, 2007).

2.3.2. Self-forgiveness

Self-forgiveness for procrastinating was measured with three items ($\alpha = .86$) just prior to taking the first midterm. These items were: "I dislike myself for procrastinating," "I criticize myself be-

cause of my tendency to procrastinate,” and “I put myself down because of my tendency to procrastinate”. Items were anchored at one (*strongly disagree*) and seven (*strongly agree*), and reverse-scored so that higher scores indicated greater self-forgiveness. This three-item measure was adapted from the self-forgiveness feeling/action subscale of Wohl and colleagues' (2008) state self-forgiveness. This state scale was created to target self-forgiveness for specific transgressions against the self as opposed to more general, or global forgiveness of the self. Importantly, Wohl et al. (2008) found that items from the feeling/action subscale significantly correlated with a single-item, face valid event specific measure of self-forgiveness.

2.3.3. Procrastination and performance

Halfway between the first and second midterm, participants were asked, “Do you think your procrastinating affected how well you did on this exam?” on a three-point scale, where 0 = *not at all* and 3 = *definitely*. Interestingly, although procrastination is a self-regulatory failure and thus, by definition, is a transgression against the self, 14 participants did not believe this to be so, answering “not at all” on this item. Consequently, we eliminated these participants leaving a final sample of 119 participants (70 female, 49 male) whose age ranged from 17 to 56 years ($M = 20.50$, $SD = 5.17$).

2.3.4. Positive and negative affect

Between midterms, both felt positive ($\alpha = .90$) and negative affect ($\alpha = .91$) about the first exam was assessed. The 20-item scale (adapted from Watson, Clark, & Tellegen, 1988) consists of 10 positive (e.g., proud) and 10 negative affect (e.g., upset) items, rated on a five-point Likert scale anchored at one (*not at all*) and five (*extremely*). Instructions to the participants were, “This scale consists of a number of words that describe different feelings and emotions. Read each item and then circle the appropriate answer next to that word. Indicate to what extent you feel this way thinking about your most recent PSYC 1001 midterm and the grade you received on it”.

2.3.5. Midterm performance

Participants' midterm grades were supplied to the researchers by the course instructor.

3. Results and discussion

3.1. Preliminary analysis

A one-way MANOVA on all predictor and dependent measures revealed no significant effects of gender, $p > .22$. As such, we collapsed across gender for all subsequent analyses.

Perhaps not surprisingly, grade on the first exam was significantly correlated with grade on the second exam, $r = .72$, $p < .001$. The correlation between procrastination and grade was $r = -.26$, $p = .04$ on the first midterm, and $r = -.42$, $p = .001$ on the second midterm. Self-forgiveness was not related to performance on the first midterm, $r = .12$, $p = .21$. Importantly, however, self-forgiveness was positively associated with performance on the second midterm, $r = .20$, $p = .03$.

3.2. Main analysis

3.2.1. Positive and negative affect

Ratings for positive and negative affect as a result of achieved grade on the first midterm were separately subjected to a moderated multiple regression (MMR). Specifically, first negative affect was regressed on procrastination for the first midterm (centered), self-forgiveness for procrastinating (centered), and the interaction

term. Both the main effect of procrastination for the first midterm and self-forgiveness for procrastinating predicted negative affect for achieved grade on the first midterm, $\beta = .22$, $p = .05$ and $\beta = -.41$, $p < .001$, respectively. Importantly, the interaction term was also significant, $\beta = -.22$, $p = .05$. Analysis of the simple slopes, illustrated in Fig. 1, showed that at +1SD above the mean on procrastination, as self-forgiveness increased, negative affect decreased, $\beta = -.58$, $p = .001$. The slope was not significant at -1SD below the mean for procrastination, $\beta = -.21$, $p = .06$. In contrast, only procrastination prior to the first midterm predicted positive affect, $\beta = -.35$, $p = .004$. Neither self-forgiveness, $\beta = .03$, $p = .74$, nor the interaction term were significant predictors of positive affect, $\beta = .17$, $p = .16$.

3.2.2. Procrastination prior to the second midterm

Like negative affect, we subjected procrastination prior to the second midterm to a MMR. Both the main effect of procrastination for the first midterm and self-forgiveness for procrastinating predicted procrastination prior to the second midterm, $\beta = .59$, $p < .001$ and $\beta = -.20$, $p = .02$, respectively. Importantly, the interaction term was also significant, $\beta = -.23$, $p = .02$. Analysis of the simple slopes, illustrated in Fig. 2, showed that at +1SD above the mean on procrastination prior to the first midterm, as self-forgiveness increased, procrastination prior to the second midterm decreased, $\beta = -.20$, $p = .02$. The slope was not significant at -1SD below the mean for procrastination prior to the first midterm, $\beta = -.01$, $p = .92$.

3.3. Tests of mediated-moderation

Our next goal was to test a mediated-moderation model. Mediated-moderation occurs when two predictor variables (in our case, procrastination prior to the first midterm and self-forgiveness for procrastinating prior to the first midterm) interactively affect a mediator, which in turn influences an outcome variable (Morgan-Lopez & MacKinnon, 2006). The previous MMR analyses established that the interaction variable (i.e., procrastination prior to the first midterm by self-forgiveness for procrastinating prior to the first midterm) predicted negative affect for achieved grade on the first midterm and procrastination prior to the second midterm. A regression test confirmed that negative affect was related to procrastination prior to the second midterm, $\beta = .24$, $p = .009$. Most importantly, when negative affect was added to the MMR models,

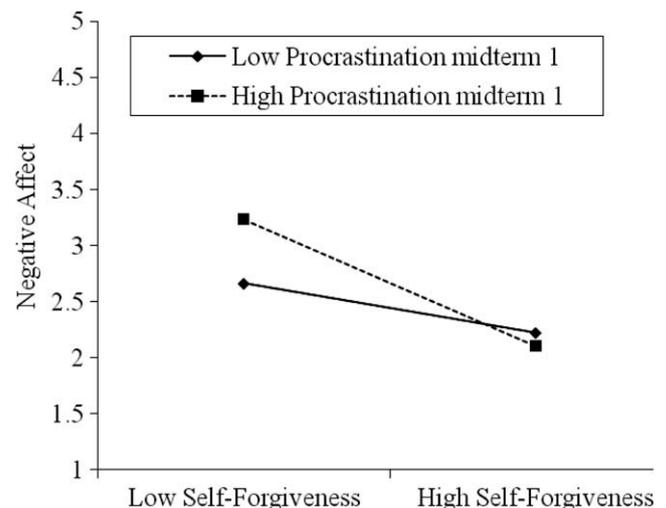


Fig. 1. Level of procrastination plotted at $\pm 1SD$ about the mean as a moderator of the relationship between self-forgiveness and negative affect for the first midterm.

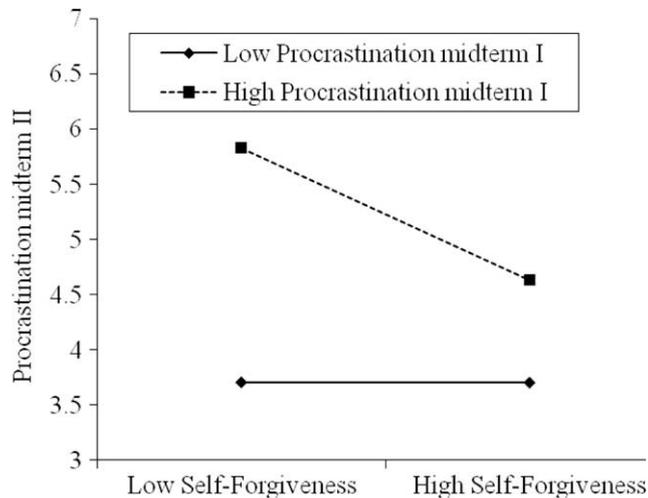


Fig. 2. Level of procrastination plotted at $\pm 1SD$ about the mean as a moderator of the relationship between self-forgiveness and procrastination prior to the second midterm.

the interaction term no longer predicted procrastination prior to the second midterm, $p = .07$, but negative affect remained a significant predictor of procrastination prior to the second midterm, $p = .007$, thus establishing mediated-moderation.

3.4. General discussion

The results of this study indicate that forgiving oneself for procrastinating has the beneficial effect of reducing subsequent procrastination by reducing negative affect associated with the outcome of an examination. When self-forgiveness for procrastinating on preparing for the first midterm examination was high, negative affect was reduced and students were less likely to procrastinate on preparing for the following examination. Conversely, students who did not self-forgive for procrastinating did not experience a reduction in negative affect and continued to engage in problematic procrastinatory behavior. One might anticipate that by releasing the individual from negative feelings about their procrastination, self-forgiveness would encourage maintenance of the status quo (i.e., continued procrastination), rather than a change in behavior, much as previous research by Sirois (2004) showed that downward counterfactuals favored by procrastinators lead to short-term mood repair but continued procrastination. The results of the current investigation, however, suggest an alternative process is at play. Forgiveness allows the individual to move past their maladaptive behavior and focus on the upcoming examination without the burden of past acts to hinder studying. By realizing that procrastination was a transgression against the self and letting go of negative affect associated with the transgression via self-forgiveness, the student is able to constructively approach studying for the next exam. In fact, previous research has shown that a lack of self-forgiveness can be a hindrance to health and well-being, for example by leading to rumination on the transgression (e.g., Thompson et al., 2005). By forgiving the self, the student is giving him or herself a new lease on their academic behaviors. Furthermore, by reducing negative affect, self-forgiveness may reduce the temptation to “give in to feel good” through addressing short-term negative mood by procrastinating (Tice & Bratslavsky, 2000). In other words, the motivational change from avoidance to approach may be a direct consequence of the reduction in negative affect, as students no longer focus on short-term mood repair (through task avoidance) and instead focus on exam preparation (task approach).

Although changes in motivation were not measured directly here, it seems reasonable to argue that this is one process by which self-forgiveness decreases procrastination. Self-forgiveness, as noted previously, is characterized by a decrease in motivation to avoid stimuli associated with the offense, and an increase in motivation to approach self-reconciliation (e.g., Hall & Fincham, 2005). Given that procrastination is characterized by avoidance (at least in the short-term), any changes in procrastinatory behavior as a result of self-forgiveness are logically due to a change in motivation. In the context of procrastination, this suggests that people who self-forgive will be able to overcome the aversive features (e.g., Blunt & Pychyl, 2000; Lay, 1992) associated with working on a task, and less likely to focus on short-term mood repair through task avoidance (e.g., Tice & Bratslavsky, 2000). However, more research is necessary to determine other mechanisms by which this process may occur.

Such an interpretation is consistent with research that has associated procrastination with guilt (e.g., Fee & Tangney, 2000). Guilt is essentially an event specific, negative self-evaluation (e.g., Lewis, 1971; Tangney & Dearing, 2002). Importantly, when we feel guilt, we are motivated to repair the harm caused (Lewis, 1971). In an academic setting, the way to repair the damage done to the self by study-relevant procrastination prior to their first midterm (a poor grade) is to reduce or eliminate study-relevant procrastination prior to their second midterm (thus increasing the likelihood of achieving a good grade). The results reported herein represent a different route by which people can reduce the amount they procrastinate from studying. Specifically, people could rely on the guilt they feel to motivate reparative action and, in doing so, they could forgive the self for doing poorly. In self-forgiveness, the individual can focus on subsequent exams without lingering negative affect interfering with focus on doing well in the future.

It might be expected that students who forgave themselves for procrastinating did so because unexpected circumstances, such as being sick, had led to their procrastination, rather than an internal motivation. That is, self-forgiveness was granted due to reductions in perceived responsibility for engaging in procrastinatory behavior prior to the first midterm. In such instances, the person would have both forgiven themselves for procrastinating and procrastinated less on the subsequent examination, because they had only procrastinated due to a temporary or unstable circumstance that was not the result of purposeful or self-directed behavior. If such were the case, an alternative explanation for the results from the current study could be garnered. This alternative explanation however is unlikely. If participants were able to make external attributions for their self-perceived lack of study time prior to their first midterm, then in such instances there was no failure of self-regulation. Specifically, the amount of time participants studied would not have been the result of a voluntary, needless delay in studying, but rather a consequence of factors that originate outside the self. The net result would be a student would not have perceived themselves as having procrastinated. Even in a mixed motive model, where one's procrastination is exacerbated by being ill for example, that part of the equation that is due to external elements would not be procrastination as there was a legitimate reason for the delay. To the point, the procrastination items used in our brief measure captured irrational delay of an intended action (i.e., study behavior), not unanticipated delay due to competing situations, clearly differentiating other forms of delay from procrastination.

3.5. Limitations

Some limitations of the current research should be noted. First, the study was limited in scope to first-year students. It is possible that there is something unique about first-year students that is contributing to the relationships between self-forgiveness, nega-

tive affect, and procrastination. Of course, it is also possible that there is something unique to academic tasks. Notwithstanding our comments below about varying the nature of the academic task, it would also be important to explore the relation between self-forgiveness and procrastination in non-student populations. We think that this would be particularly relevant in settings where similar tasks are repeated (e.g., preparing monthly financial reports).

A second limitation of this study is that we examined only one type of academic task, a multiple-choice midterm examination, assessed relatively early in the term. It would be useful to measure students' procrastination and self-forgiveness on multiple tasks throughout the semester through to final exams to see whether the beneficial effects of self-forgiving for procrastinating generalize across a variety of tasks at multiple time periods, particularly the spring semester for which previous research has shown procrastination to be more "costly" with higher reports of somatic complaints (e.g., Tice & Baumeister, 1997).

Third, it is possible that other variables apart from self-forgiveness might have a similar effect on procrastinatory behavior. For example, perfectionism (e.g., Flett, Hewitt, Davis, & Sherry, 2004) might interact with procrastination to influence future procrastination such that those who are low in perfectionism could find it especially easy to release the self from negative affect related to performance on an initial test. With that said, self-forgiveness is a unique construct that is in need of more empirical attention (Hall & Fincham, 2005; Tangney et al., 2005; Wohl et al., 2008). Indeed, results from the current study suggest that the ability to self-forgive has beneficial effects in an academic setting.

Fourth, it should also be noted that the three items used to assess self-forgiveness were negatively worded. That said, the scale had high internal consistency and face validity. Subsequent research would benefit from an item that directly asks participants if they self-forgive for their behavior.

Finally, the analysis did not account for students' satisfaction with their grades or the type of counterfactual examples that students might use in making sense of their grades in relation to their procrastination (e.g., Sirois, 2004). For example, students high in procrastination who are satisfied with their grade should display a high level of self-forgiveness, as they are able to excuse their behavior, but would not be expected to reduce subsequent procrastination. The data did not allow for the testing of such a complex model, but this should be considered an avenue of inquiry for future research.

3.6. Summary and conclusions

The results of this study indicate that studying self-forgiveness in relation to procrastination may be beneficial in shedding new light on the processes that influence this self-regulation failure. Self-forgiveness for procrastinating appears to be constructive in the short-term by allowing the individual to overcome the negative affect associated with an earlier task and engage in approach-oriented behaviors on a subsequent similar task. Learning to forgive the self for procrastinating will likely be beneficial by reducing procrastination, but also more generally by promoting feelings of self-worth and more positive mental health. Future research should address the motivational processes by which self-forgiveness decreases procrastination. Shame, for example, is a strong candidate for another mediator of the relationship between procrastination and self-forgiveness. If self-forgiveness does reduce procrastination by reducing avoidance motivation and increasing approach motivation, this should manifest itself in a change in feelings of shame following self-forgiveness for procrastinating. Exploring such lines of research will give us a better understanding of the affective processes related to procrastination

and provide new insights into ways in which people may be able to cope with these emotions in a constructive manner that both reduces procrastination and improves their emotional life.

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