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Redeeming Procrastination: Self-Compassion and Creativity

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Abstract

This paper investigates the effects of self-compassion interventions on creativity after reflecting on a past procrastination experience. The experimental survey ran on Amazon Mechanical Turk (“MTurk”) in April 2018. Over 400 participants were randomized according to the 2x2 factorial design into four groups: a self-kindness intervention group, a common humanity intervention group, a combined self-kindness and common humanity group, and a control group. Participants first completed pre-survey measures that measured trait self-compassion, guilt and shame proneness, and attributional causes. After being asked to reflect on a time they procrastinated that made them feel badly about themselves, participants completed a self-compassion or control writing task. Emotional affect and state self-compassion were then measured. Lastly, participants completed a written business proposal to measure creativity. Creativity scores were not significantly higher for those who received a self-compassion intervention, and were in fact highest in the control group, although not significantly so.

Keywords

procrastination, self-compassion, self compassion, creativity, self-kindness, common humanity

Disciplines

Organizational Behavior and Theory

REDEEMING PROCRASTINATION: SELF-COMPASSION AND CREATIVITY

By

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An Undergraduate Thesis submitted in partial fulfillment of the requirements for the

WHARTON RESEARCH SCHOLARS

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ABSTRACT

This paper investigates the effects of self-compassion interventions on creativity after reflecting on a past procrastination experience. The experimental survey ran on Amazon Mechanical Turk (“MTurk”) in April 2018. Over 400 participants were randomized according to the 2x2 factorial design into four groups: a self-kindness intervention group, a common humanity intervention group, a combined self-kindness and common humanity group, and a control group. Participants first completed pre-survey measures that measured trait self-compassion, guilt and shame proneness, and attributional causes. After being asked to reflect on a time they procrastinated that made them feel badly about themselves, participants completed a self-compassion or control writing task. Emotional affect and state self-compassion were then measured. Lastly, participants completed a written business proposal to measure creativity. Creativity scores were not significantly higher for those who received a self-compassion intervention, and were in fact highest in the control group, although not significantly so.

Keywords

Procrastination, self-compassion, creativity, self-kindness, common humanity

I. LITERATURE REVIEW

Section 1: Procrastination Overview

Most of us have put off tasks before, to varying degrees and severity. In general, procrastination is incredibly common. It is estimated that “80-95% of college students procrastinate, 75% of them consider themselves procrastinators, and almost 50% procrastinate consistently and problematically” (Steel, 2007). And it is not just college students – it is estimated that almost 20% of “nonclinical adult men and women label themselves as ‘chronic procrastinators’” (Ferrari & Tice, 2000). Although procrastination has been defined in many different ways, this paper will define procrastination as “to voluntarily delay an intended course of action despite expecting to be worse off for the delay” (Steel, 2007).

While procrastination is common, it is not without consequences. Procrastination accounts for a “significant portion of variance in college grades beyond that explained by ability and high school grades,” meaning that it is a “significant negative predictor of college grade point average” (Wesley, 1994; Haycock et al., 1998). Additionally, procrastination from doctoral students can lead to a failure to finish dissertations and can also put new faculty members at risk of losing their tenure-track positions (Muszynski & Akamatsu, 1991; Boice, 1989). Procrastination can also have serious financial consequences. For example, a survey by H&R Block revealed that “almost 40% of all Americans in 2002-2003 waited until April to file their taxes costing themselves \$400 due to the mistakes made by rushing and last minute changes,” resulting in more than \$473 million in overpayments (Kasper, 2004). The consequences of procrastination extend beyond financial and job-related consequences; procrastination has a negative impact on our health. It is proposed that procrastination affects health both directly and indirectly (Sirois et al., 2003). In a direct manner, procrastination

“includes the creation of unnecessary stress” that is associated with “psychophysiological reactivity which may lead to changes in immune function that can adversely affect health” and lead to “more acute health problems” (Sirois et al., 2003). Indirectly, procrastination can result in the “delay of health-protective behaviors and the promotion of unhealthy behaviors” (Sirois et al., 2003). Specifically, those who procrastinate report “fewer household safety behaviors” as well as “less frequent dental and medical check-ups” (Sirois, 2007).

Despite the prevalence and severity of procrastination, misconceptions still exist about the mechanisms behind procrastination. While some may believe that procrastination is “solely a deficit in study habits or time management,” researchers have known for decades that procrastination involves a “complex interaction of behavioral, cognitive, and affective components” (Solomon & Rothblum, 1984). For many years, researchers have investigated the puzzle of procrastination to better understand its component parts as well as how it interacts with different aspects of both positive and negative affect traits. As with many thoroughly researched areas, there are many consistencies and inconsistencies across the procrastination literature.

A meta-analysis performed in 2007, though, allows for a better understanding of procrastination as a self-regulatory failure. Specifically, the meta-analysis identified 691 correlations with the goal of uncovering the possible causes and effects of procrastination. The meta-analysis found that traits such as neuroticism, rebelliousness, and sensation seeking had only a weak connection (Steel, 2007). More revealingly, “strong and consistent predictors of procrastination were task aversiveness, task delay, self-efficacy, impulsiveness, [conscientiousness], distractibility, organization, and achievement motivation” (Steel, 2007). These traits help us understand the causes of procrastination, but less so the consequences.

Section 2: Procrastination and Stress

Several studies have found that procrastination is associated with anxiety and depression, as well as feelings of shame and guilt (Sirois, 2014). Arguments can be made as to whether stress is a cause or effect of procrastination, but researchers would say that it is “more difficult to view procrastination as an outcome of transitory perceived stress,” and it is “more plausible that trait procrastination is associated with characteristic ways of thinking such as negative self-evaluative thoughts which contribute to the stress that procrastinators experience” (Sirois, 2014). Studies show that even attempting to complete previously delayed tasks can contribute to worry and anxiety (Sirois, 2014). Additionally, recent research “provides support for the notion that procrastination-related negative self-evaluations may contribute to the stress associated with trait procrastination” (Sirois, 2014). To summarize, “there is emerging evidence that the stress associated with procrastination may [...] arise from the intra-personal processes linked to the negative self-judgments that procrastinators inflict upon themselves when dealing with difficult tasks as well as during the aftermath of unnecessary delay” (Sirois, 2014).

Section 3: Stress and Self-Compassion

Self-compassion is a relatively new construct that consists of three parts: self-kindness, common humanity, and mindfulness (Neff, 2003). Self-compassion, according to its founding paper, is an “emotionally positive self-attitude that should protect against the negative consequences of self-judgment, isolation, and rumination” (Neff, 2003). Further studies have found that self-compassion is linked to enhanced psychological well-being and decreased anxiety, decreased depression, and decreased rumination (Neff, Rude, & Kirkpatrick, 2007).

Self-compassion may also lead to self-regulation that can reduce “the negative emotional states and self-blame that can derail successful self-regulation” (Terry & Leary, 2011).

Section 4: Self-Compassion and Procrastination

The aforementioned benefits of self-compassion suggest that individuals high in self-compassion may suffer less from the negative self-judgments that many procrastinators inflict on themselves. Indeed, those high in self-compassion report dramatically less procrastination tendencies compared to those with low or moderate levels of self-compassion” (Williams, Stark, & Foster, 2008). Additionally, a meta-analysis across four different samples showed that “procrastination was significantly associated with lower levels of self-compassion, and lower levels of self-compassion partially explained the indirect effects of procrastination on stress” (Sirois, 2013). As the author notes, these findings suggest that interventions that promote self-compassion could be beneficial for procrastinators. (Sirois, 2013).

Section 5: Self-Compassion Interventions

The benefits of higher levels of self-compassion in regards to procrastination were detailed in the previous section, but researchers have also “begun to examine the moderating effects of self-compassion on people’s reactions to negative events” (Leary et al., 2007). Specifically, Leary et al. found that state self-compassion can be experimentally induced by leading participants to think about the three main components of self-compassion. Participants in the self-compassion condition “reported lower ‘negative affect’ than those in any other condition” (Leary et al, 2007). The knowledge that one can experimentally moderate the effects

of self-compassion in individuals leads to exciting opportunities to understand the outcomes of self-compassion interventions.

Section 6: Self-Compassion Interventions and Creativity

One area that can be considered for self-compassion interventions is creativity. There has not been much research done in this area, but one paper has explored the effect of self-compassion interventions on creativity. The paper found that “self-judgmental individuals displayed lower levels of creative originality in the control condition, but equal levels of creative originality in the self-compassion condition” (Zabelina & Robinson, 2010). This is interesting for two reasons. First, it is interesting to see that those who are highly self-judgmental are significantly less creative than those who are low in self-judgment. Second, by inducing self-compassion in those who are high in self-judgment, one sees an immense increase in creativity to similar levels of those who are low in self-judgment. This impressive result in an understudied area provides a strong opportunity for further research.

II. RESEARCH QUESTION AND HYPOTHESIS

Primary Objective

To see if self-compassion interventions can modify procrastination to lead to increased creativity.

Question

Which of the main components of the self-compassion construct best allow people to successfully reframe past procrastination and consequently increase creativity?

Hypothesis

It is expected that much of the effect of self-compassion will come from the self-kindness component compared to the common humanity condition. It is believed that the self-kindness condition will lead participants to have the greater creative output.

It is not expected that the common humanity or the mindfulness conditions are as effective as the self-kindness in the context of this study. In terms of common humanity, the prevalence of procrastination is indeed very well known, especially on college campuses, yet students still struggle with it. Additionally, the mindfulness component is expected to also be less significant than self-kindness. While Neff claims that the mindfulness piece is requisite for the other pieces, it is hypothesized that both self-kindness and common humanity can be effective without the mindfulness component. To simplify the survey design and due to cost constraints, only the self-kindness and common humanity conditions will be induced in the experiment.

It is believed that the self-kindness component intervention will be particularly effective due to the results of several different studies. The first study, discussed previously, found that

self-compassion interventions were particularly effective for those high in self-judgment (Zabelina & Robinson, 2010). The self-kindness component may be more effective than the common humanity component in reducing self-judgment. While it will be impossible to know without running the experiment to separate out the components, the self-focused nature of self-judgment means that it would respond better to a self-focused intervention like self-compassion rather than a population-based intervention like common humanity.

This is further supported by additional studies. A study found that people reason more wisely when instructed to self-distance (Grossmann & Kross, 2014). Self-kindness, by encouraging you to take the viewpoint of a friend, inherently creates distance from the self. Distance from the self is not emphasized in common humanity, but rather the commonality of one's experiences is. Another study shows that people weight "attributes more uniformly compared to when they give advice," meaning that an outside perspective was more helpful in giving nuanced advice with differential weighting (Kray & Gonzalez, 1999). This implies that creating distance from a problem or choice may lead to better comprehension of it. Additionally, research on construal level theory suggests that increased psychological distance can improve decision making, such as reducing the sunk-cost bias (Trope, Liberman, Wakslak, 2007).

Additionally, studies have found that procrastination and shame-proneness are correlated while procrastination and guilt-proneness are not (Fee & Tangney, 2000). This finding is particularly enlightening when considering the differences between shame and guilt. The article notes that "theory and empirical studies indicate that shame and guilt are different emotions" and that the difference lies in "whether the individual is negatively evaluating the global self, as opposed to a specific behavior" (Fee & Tangney, 2000). Specifically, feelings of guilt "are experienced when an individual's focus is on his or her behavior" with a focus on the action

itself, while feelings of shame “involves a focus on the self”, “goes beyond the specifics of the behavior,” and entails a broad “negative evaluation” of the self (Fee & Tangney, 2000). With these differences in mind, it is likely that self-kindness would be more effective than common humanity. Common humanity would effectively counter guilt best, as the focus there is on the action itself, meaning that normalizing the action would seemingly help. Conversely, self-kindness would most effectively counter shame, as the focus there goes beyond the specifics of the behavior to the negative evaluation of the self. Once the negativity has crept past the action and has embedded itself in the self, common humanity loses some power, and self-kindness is instead most powerful and necessary to loosen the ties between the action and the negative evaluation.

III. METHODOLOGY

The experimental survey was conducted on Amazon Mechanical Turk (“MTurk”) in April 2018. Over the course of a week, 427 participants took part in the study. All participants had a HIT Approval Rate (%) for all Requesters’ HITs greater than or equal to 95, were located in the United States, and had greater than or equal to 100 previous HITs approved. Demographic information was not collected. The average response time was 22 minutes.

Upon entering the Qualtrics survey, participants were randomized according to the 2x2 factorial design into four conditions: a self-kindness intervention group, a common humanity intervention group, a combined self-kindness and common humanity group, and a control group. Participants were first shown a Consent Form and consented to participate.

Next, participants completed pre-survey measures, specifically the Self-Compassion Scale (Neff, 2003), Guilt and Shame Proneness Scale (Cohen, Wolf, Panter, & Insko, 2011), and an attributional causes scale (Leary, 2007). The scales were all standardized to be 7-point scales.

All participants were then asked to “Think about a time that you procrastinated that made you feel badly about yourself” and then to “describe the event and provide details regarding: what led up to the event, precisely what happened, and how you felt and behaved at the time.”

At this point, participants were assigned to a writing task based on their previously randomized condition:

Control: Write two paragraphs about furniture.

Self-kindness: Write two paragraphs expressing understanding, kindness, and concern to yourself about your procrastination experience in the same way that you might express concern to a friend.

Common humanity: Write two paragraphs about how other people also experience similar

events to your procrastination experience.

Full self-compassion: Write a paragraph about how other people also experience similar events to your procrastination experience. Then write a paragraph expressing understanding, kindness, and concern to yourself about your procrastination experience in the same way that you might express concern to a friend.

Next, participants completed the Positive and Negative Affect Schedule (“PANAS”) Scale (Watson, Clark, & Tellegen, 1988) and a revised 16-item state self-compassion scale (Breines & Chen, 2012). Again, the scales were all standardized to be 7-point scales.

Participants past written tasks were then displayed on a summary screen and they were asked to read over their previous written responses.

Lastly, participants were asked to complete a business proposal task. First, the context of the task was explained to them: a 2000 square foot space in the heart of New York City is vacant and needs a new business to fill it. Second, they were asked to write down all of the “creative and practical” business ideas that come to mind. Third, they were asked to choose one or two of their best ideas (most creative and practical) and write business proposals on them.

IV: ANALYSIS OF DATA

Subjects in the Analyses

Some of the participants were removed from the data set for analysis purposes. Participants with nonsensical written responses were removed. Additionally, participants who missed the attention check were removed. Lastly, three participants whose business proposals' creativity scores were two standard deviations above the mean were removed. After removing participants for the aforementioned reasons, 375 remained for the analysis.

Creativity Scoring

Reviewers were recruited to score the creativity of the submitted business proposals. When a submission had two business proposals, the two scores were averaged to create one aggregate score.

The first two recruited reviewers were rather heterogeneous: different genders and job types. They were not fully trained and interpreted the directions very differently. Their scores had an average deviation of .50 and an ICC2 of .17.

Two new reviewers were recruited; this time they were both college undergraduates and they received clearer training and directions before they scored the proposals. Their scores had an average deviation of .50 and an ICC2 of .72.

The second set of reviewers scores were ultimately used. Averaging their two aggregate scores led to an aggregate creativity score that was used as the measure of the dependent variable.

Manipulation Checks

First, a 2x2 ANOVA was performed using SPSS to examine the independent and interactive effects of the two treatments on creativity.

Note on condition labels: a 0 means that the condition was not present. For example, those who have a 0 for ConSK and ConCH were the control, while those who have a 1 for both received the full self-compassion condition.

1. Between-Subjects Factors

		N
ConSK	0	156
	1	181
ConCH	0	175
	1	162

2. Descriptive Statistics

Dependent Variable: ComboReviewerAvg

ConSK	ConCH	Mean	Std. Deviation	N
0	0	3.5823	1.23732	82
	1	3.2365	1.05653	74
	Total	3.4183	1.16438	156
1	0	3.2231	1.23769	93
	1	3.2415	1.18142	88
	Total	3.2320	1.20734	181
Total	0	3.3914	1.24698	175
	1	3.2392	1.12266	162
	Total	3.3182	1.18953	337

3. Tests of Between-Subjects Effects

Dependent Variable: ComboReviewerAvg

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	7.573 ^a	3	2.524	1.797	.148
Intercept	3689.469	1	3689.469	2626.000	.000
ConSK	2.623	1	2.623	1.867	.173
ConCH	2.242	1	2.242	1.596	.207

ConSK * ConCH	2.773	1	2.773	1.974	.161
Error	467.857	333	1.405		
Total	4186.063	337			
Corrected Total	475.430	336			

a. R Squared = .016 (Adjusted R Squared = .007)

Estimated Marginal Means

4. ConSK

Dependent Variable: ComboReviewerAvg

ConSK	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
0	3.409	.095	3.222	3.596
1	3.232	.088	3.059	3.406

5. ConCH

Dependent Variable: ComboReviewerAvg

ConCH	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
0	3.403	.090	3.226	3.579
1	3.239	.093	3.055	3.423

6. ConSK * ConCH

Dependent Variable: ComboReviewerAvg

ConSK	ConCH	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
0	0	3.582	.131	3.325	3.840
	1	3.236	.138	2.965	3.508
1	0	3.223	.123	2.981	3.465
	1	3.241	.126	2.993	3.490

As one can see in the data, there was no statistically significant difference of the two treatments on creativity. Interestingly, the control group had the highest average creativity scores, although this difference was not significant after further examination using t-tests.

Additionally, a 2x2 MANOVA was conducted to examine the independent and interactive effects of the two treatments on the mediators.

7. *Between-Subjects Factors*

		N
ConSK	0	156
	1	181
ConCH	0	175
	1	162

8. *Multivariate Tests^a*

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.946	2888.501 ^b	2.000	332.000	.000
	Wilks' Lambda	.054	2888.501 ^b	2.000	332.000	.000
	Hotelling's Trace	17.401	2888.501 ^b	2.000	332.000	.000
	Roy's Largest Root	17.401	2888.501 ^b	2.000	332.000	.000
ConSK	Pillai's Trace	.037	6.303 ^b	2.000	332.000	.002
	Wilks' Lambda	.963	6.303 ^b	2.000	332.000	.002
	Hotelling's Trace	.038	6.303 ^b	2.000	332.000	.002
	Roy's Largest Root	.038	6.303 ^b	2.000	332.000	.002
ConCH	Pillai's Trace	.002	.379 ^b	2.000	332.000	.685
	Wilks' Lambda	.998	.379 ^b	2.000	332.000	.685
	Hotelling's Trace	.002	.379 ^b	2.000	332.000	.685
	Roy's Largest Root	.002	.379 ^b	2.000	332.000	.685
ConSK *	Pillai's Trace	.001	.215 ^b	2.000	332.000	.806
ConCH	Wilks' Lambda	.999	.215 ^b	2.000	332.000	.806
	Hotelling's Trace	.001	.215 ^b	2.000	332.000	.806
	Roy's Largest Root	.001	.215 ^b	2.000	332.000	.806

a. Design: Intercept + ConSK + ConCH + ConSK * ConCH

b. Exact statistic

9. Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	StatePosAff	2207.891 ^a	3	735.964	4.391	.005
	StateNegAff	135.049 ^b	3	45.016	.320	.811
Intercept	StatePosAff	658681.561	1	658681.561	3930.270	.000
	StateNegAff	147322.118	1	147322.118	1048.384	.000
ConSK	StatePosAff	2115.525	1	2115.525	12.623	.000
	StateNegAff	73.815	1	73.815	.525	.469
ConCH	StatePosAff	102.577	1	102.577	.612	.435
	StateNegAff	8.863	1	8.863	.063	.802
ConSK * ConCH	StatePosAff	18.580	1	18.580	.111	.739
	StateNegAff	52.888	1	52.888	.376	.540
Error	StatePosAff	55808.115	333	167.592		
	StateNegAff	46794.191	333	140.523		
Total	StatePosAff	727810.000	337			
	StateNegAff	194875.000	337			
Corrected Total	StatePosAff	58016.006	336			
	StateNegAff	46929.240	336			

a. R Squared = .038 (Adjusted R Squared = .029)

b. R Squared = .003 (Adjusted R Squared = -.006)

Similarly to the previous analysis, the majority of the findings are not statistically significant. However, ConSK (Self-kindness condition) did statistically significantly induce higher State Positive Affect scores.

V: DISCUSSION

The hypothesis as stated was not ultimately supported by the statistical analysis of the results. The different forms of self-compassion interventions seemingly had the opposite effect as was expected – those who had no self-compassion intervention ultimately had the highest average creativity scores.

There are a few possible explanations for this. First, it is possible that the self-compassion conditions led the participants to ruminate more on their aforementioned procrastination experience. This may have led them to focus more on themselves instead of the creativity task. The control condition, conversely, wrote about furniture after writing about a procrastination experience that made them feel badly about themselves. Writing about furniture could have created a distraction treatment that took their attention away from their procrastination experience and themselves and allowed them to have slightly better and more creative ideas.

In future experiments, different study designs could help avoid this issue. A study in which there is a control group that does not write anything about procrastination could be helpful in avoiding the problem of rumination. Additionally, including a condition where people write about why procrastination is bad and forces them to almost be hard on themselves could also be an interesting in-study contrast to the self-compassion conditions.

The findings bring up questions for future research about the effectiveness of bringing up past negative experiences and utilizing interventions to try and reduce their potency. From these results, it seems that the recall of the event and the duration of time thinking about the event can have an impact on the outcomes, even if the task is attempting to reduce the negative aspects associated with the memory of the experience.

VI: CONCLUSION

Creativity scores were not significantly higher in those who received a self-compassion intervention, and were in fact highest in the control group, although not significantly so. It is hypothesized that the length of time thinking about the past procrastination experience may have led to increased rumination and decreased attention and effort in the creativity task, while those in the control group became distracted and ruminated less. Future changes in study design can build off of these findings and control for these unexpected results.

Importantly, there was a statistically significant increase in the positive affect of those who were in the self-kindness condition compared to the other conditions. This hints that, as hypothesized, self-kindness may be the most effective of the three components of self-compassion. Indeed, self-kindness interventions appear to effectively induce positive emotions more so than common-humanity interventions, but it is still unclear how the induction of positive emotions interacts with the reduction of negative emotions that arise from reflecting on a difficult procrastination experience.

Lastly, the long-term effect of the self-compassion intervention is unclear. While it may have led to increased rumination in the short-term, it is possible that there were longer-term positive effects unable to be accounted for in this single experimental survey.

VII. REFERENCES

- Boice, R. (1989). Procrastination, busyness and bingeing. *Behaviour Research and Therapy*, 27(6), 605-611.
- Breines, J. G., & Chen, S. (2013). Activating the inner caregiver: The role of support-giving schemas in increasing state self-compassion. *Journal of Experimental Social Psychology*, 49(1), 58-64.
- 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, 947-966.
- Fee, R. L., & Tangney, J. P. (2000). Procrastination: A means of avoiding shame or guilt?. *Journal of Social Behavior and Personality*, 15(5), 167.
- Ferrari, Joseph R., and Dianne M. Tice. "Procrastination as a self-handicap for men and women: A task-avoidance strategy in a laboratory setting." *Journal of Research in Personality* 34, no. 1 (2000): 73-83.
- Grossmann, I., & Kross, E. (2014). Exploring Solomon's Paradox: Self-distancing eliminates the self-other asymmetry in wise reasoning about close relationships in younger and older adults. *Psychological Science*, 25(8), 1571-1580.
- Haycock, L. A., McCarthy, P., & Skay, C. L. (1998). Procrastination in college students: The role of self-efficacy and anxiety. *Journal of Counseling & Development*, 76(3), 317-324.
- Kasper, G. (2004). Tax procrastination: Survey finds 29% have yet to begin taxes. *Retrieved March, 14, 2006*.
- Kray, L., & Gonzalez, R. (1999). Differential weighting in choice versus advice: I'll do this, you do that. *Journal of Behavioral Decision Making*, 12(3), 207.

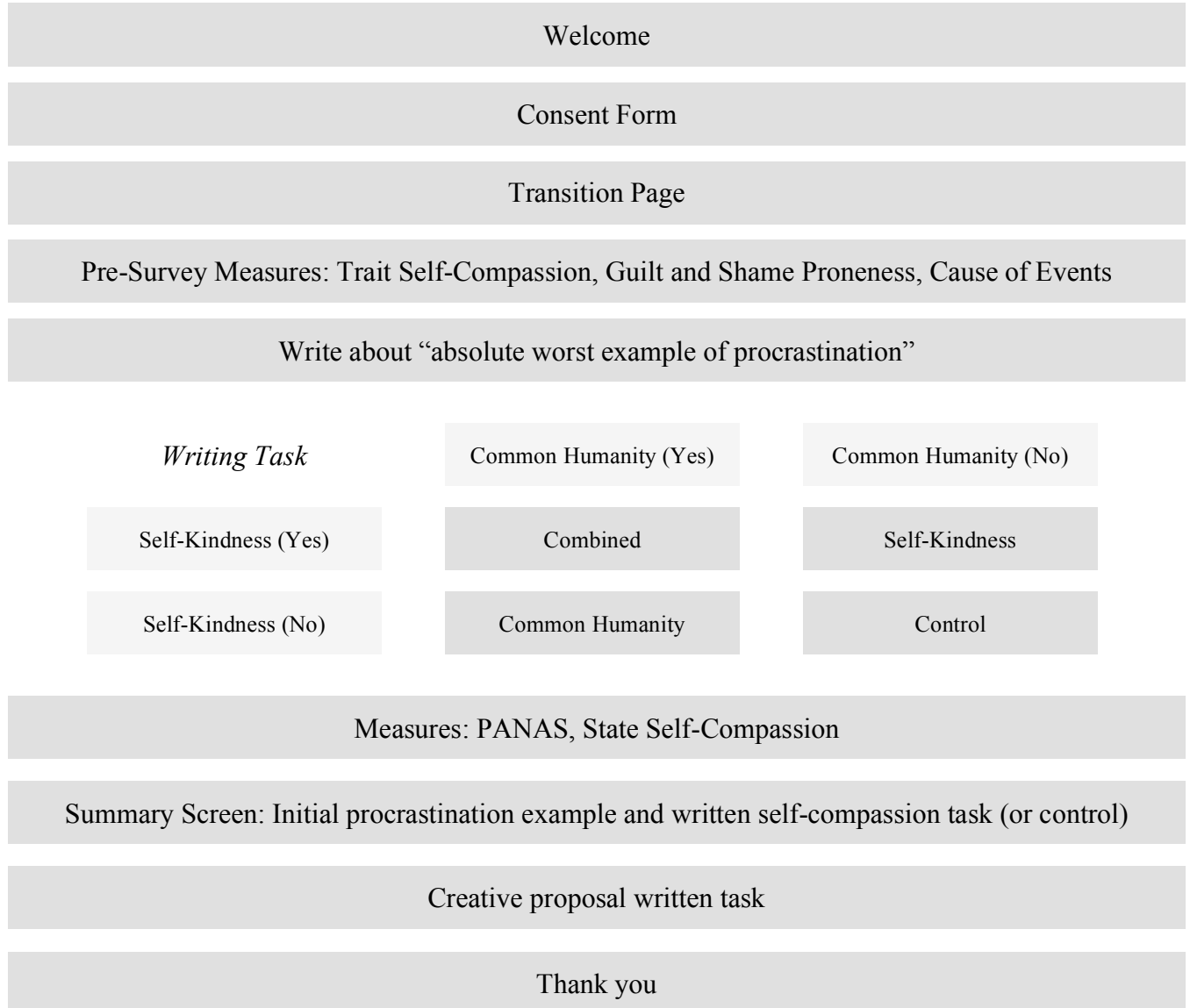
- Leary, M. R., Tate, E. B., Adams, C. E., Batts Allen, A., & Hancock, J. (2007). Self-compassion and reactions to unpleasant self-relevant events: the implications of treating oneself kindly. *Journal of Personality and Social Psychology*, *92*(5), 887.
- Muszynski, S. Y., & Akamatsu, T. J. (1991). Delay in completion of doctoral dissertations in clinical psychology. *Professional Psychology: Research and Practice*, *22*(2), 119.
- Neff, K. (2003). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity*, *2*(2), 85-101.
- Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity*, *2*(3), 223-250.
- Neff, K. D., Rude, S. S., & Kirkpatrick, K. L. (2007). An examination of self-compassion in relation to positive psychological functioning and personality traits. *Journal of Research in Personality*, *41*(4), 908–916.
- Sirois, F. M., Melia-Gordon, M. L., & Pychyl, T. A. (2003). “I’ll look after my health, later”: An investigation of procrastination and health. *Personality and Individual Differences*, *35*(5), 1167-1184.
- Sirois, F. M. (2007). “I’ll look after my health, later”: A replication and extension of the procrastination–health model with community-dwelling adults. *Personality and Individual Differences*, *43*(1), 15-26.
- Sirois, F. M. (2014). Procrastination and stress: Exploring the role of self-compassion. *Self and Identity*, *13*(2), 128-145.
- Solomon, Laura J., and Esther D. Rothblum. "Academic procrastination: Frequency and cognitive-behavioral correlates." *Journal of Counseling Psychology* 31, no. 4 (1984): 503.

- Steel, Piers. "The nature of procrastination: a meta-analytic and theoretical review of quintessential self-regulatory failure." (2007): 65.
- Terry, M. L., & Leary, M. R. (2011). Self-compassion, self-regulation, and health. *Self and Identity, 10*(3), 352-362.
- Trope, Y., Liberman, N., & Wakslak, C. (2007). Construal levels and psychological distance: Effects on representation, prediction, evaluation, and behavior. *Journal of Consumer Psychology, 17*(2), 83-95.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology, 54*(6), 1063.
- Wesley, J. C. (1994). Effects of ability, high school achievement, and procrastinatory behavior on college performance. *Educational and Psychological Measurement, 54*(2), 404-408.
- Williams, J. G., Stark, S. K., & Foster, E. E. (2008). Start today or the very last day? The relationships among self-compassion, motivation, and procrastination. In *American Journal of Psychological Research*.
- Zabelina, D. L., & Robinson, M. D. (2010). Don't be so hard on yourself: Self-compassion facilitates creative originality among self-judgmental individuals. *Creativity Research Journal, 22*(3), 288-293.

VIII: APPENDIX

Survey Overview

Below is the survey map for the participant survey.



Qualtrics Survey

Block: Beginning (8 Questions)

EmbeddedData

UserAgent Text SetValue will be set from Panel or URL.

WebService: GET - <http://reporting.qualtrics.com/projects/randomNumGen.php> - Fire and Forget

BlockRandomizer: 1 - Evenly Present Elements

EmbeddedData

Condition = Control

EmbeddedData

Condition = SK

EmbeddedData

Condition = CH

EmbeddedData

Condition = Full SC

Branch: New Branch

If

If Condition Is Equal to Control

Block: Control Block (1 Question)

Branch: New Branch

If

If Condition Is Equal to SK

Standard: SK Block (1 Question)

Branch: New Branch

If

If Condition Is Equal to CH

Standard: CH Block (1 Question)

Branch: New Branch

If

If Condition Is Equal to Full SC

Standard: Full SC (1 Question)

Standard: DV (2 Questions)

Standard: Summary Screen (1 Question)

Standard: Creative Proposal Written Task Part 1 (1 Question)

Standard: Creative Proposal Written Task Part 1 (4 Questions)

Standard: Thank you (1 Question)

Page Break

Start of Block: Beginning

We appreciate your participation in the following survey. After reviewing a consent form, you'll see a series of questions as well as writing tasks. It should take less than 15 minutes to complete this survey.

Page Break

Consent Form

Principal Investigator: Professor Adam Grant (grantad@wharton.upenn.edu)

You are being asked to take part in a research study. This is not a form of treatment or therapy. It is not supposed to detect a disease or find something wrong. Your participation is voluntary which means you can choose whether or not to participate. If you decide to participate or not to participate there will be no loss of benefits to which you are otherwise entitled. Before you make a decision, you will need to know the purpose of the study, the possible risks and benefits of being in the study and what you will have to do if you decide to participate.

If you do not understand what you are reading, do not agree to participate. Please ask the researcher to explain anything you do not understand, including any language contained in this form. If you decide to participate, you will be asked to continue with the study after reading this form and your continuation will indicate your consent.

What is the purpose of this research?

The purpose of the study is to advance research on procrastination and self-compassion.

How long will I take part in this research?

Your participation will take 15 minutes today.

What can I expect if I take part in this research?

As a participant, you will be asked to answer a series of survey questions and/or participate in a series of tasks. Additional information will be provided to you during your study participation.

What are the risks and possible discomforts?

There are no anticipated risks associated with the study.

Will I be compensated for participating in this research?

You will receive the specified payment from the HIT.

If I take part in this research, how will my privacy be protected? What happens to the information you collect?

The data we collect today will not include any personal or sensitive information. In addition, it will not be identified with your name, but only with a participant number. The data will eventually be used for publication in research journals and presentations at scientific conference. At such time, the data will be presented in aggregate, and individual participants will never be discussed.

Who can I call with questions, complaints or if I'm concerned about my rights as a research subject?

If you have questions, concerns or complaints regarding your participation in this research study or if you have any questions about your rights as a research subject, you should speak with the Principal Investigator listed at the top of this form. If a member of the research team cannot be reached or you want to talk to someone other than those working on the study, you may contact the Office of Regulatory Affairs with any questions, concerns or complaints at the University of Pennsylvania by calling (215) 898-2614.

By continuing with this study, you are consenting to participate.

Page Break

Q24 Please enter your MTurk Worker ID (it should start with A).

You will only receive credit based on the ID you provide below.

MTurk Worker ID:

Page Break

On the following pages are questions about your general tendencies as well as specific events.

Page Break

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES Please read each statement carefully before answering. For each item, indicate how often you behave in the stated manner, using the following scale:

	Disagree strongly 1 (1)	Disagree 2 (2)	Disagree slightly 3 (3)	Neither agree nor disagree 4 (4)	Agree slightly 5 (5)	Agree 6 (6)	Agree strongly 7 (7)
I'm disapproving and judgmental about my own flaws and inadequacies. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm feeling down I tend to obsess and fixate on everything that's wrong. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When things are going badly for me, I see the difficulties as part of life that everyone goes through. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to be loving towards myself when I'm feeling emotional pain. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I fail at something important to me I become consumed by feelings of inadequacy. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When times are really difficult, I tend to be tough on myself. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When something upsets me I try to keep my emotions in balance. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people. (10)

I'm intolerant and impatient towards those aspects of my personality I don't like. (11)

When I'm going through a very hard time, I give myself the caring and tenderness I need. (12)

When I'm feeling down, I tend to feel like most other people are probably happier than I am. (13)

When something painful happens I try to take a balanced view of the situation. (14)

I try to see my failings as part of the human condition. (15)

When I see aspects of myself that I don't like, I get down on myself. (16)

When I fail at something important to me I try to keep things in perspective. (17)

When I'm really struggling, I tend to feel like other people must be having an easier time of it. (18)

I am often tough on myself - Please choose Agree strongly. (19)

I'm kind to myself when I'm experiencing suffering. (20)

When something upsets me I get carried away with my feelings. (21)

I can be a bit cold-hearted towards myself when I'm experiencing suffering. (22)

When I'm feeling down I try to approach my feelings with curiosity and openness. (23)

I'm tolerant of my own flaws and inadequacies. (24)

When something painful happens I tend to blow the incident out of proportion. (25)

When I fail at something that's important to me, I tend to feel alone in my failure. (26)

I try to be understanding and patient towards those aspects of my personality I don't like. (27)

Page Break

Q11 Instructions: In this questionnaire you will read about situations that people are likely to encounter in day-to-day life, followed by common reactions to those situations.

As you read each scenario, try to imagine yourself in that situation. Then indicate the likelihood that you would react in the way described.

	1 Very Unlikely (1)	2 Unlikely (2)	3 Slightly Unlikely (3)	4 About 50% Likely (4)	5 Slightly Likely (5)	6 Likely (6)	7 Very Likely (7)
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? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

librarian and your entire class. What is the likelihood that this would make you feel like a bad person? (3)

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? (4)

You reveal a friend's secret, though your friend never finds out. What is the likelihood that your failure to keep the secret would lead you to exert extra effort to keep secrets in the future? (5)

You give a bad presentation at work.

Afterwards your boss tells your coworkers it was your fault that your company lost the contract.

What is the likelihood that you would feel

incompetent?
(6)

A friend tells you that you boast a great deal. What is the likelihood that you would stop spending time with that friend? (7)

Your home is very messy and unexpected guests knock on your door and invite themselves in. What is the likelihood that you would avoid the guests until they leave? (8)

You secretly commit a felony. What is the likelihood that you would feel remorse about breaking the law? (9)

You successfully exaggerate your damages in a lawsuit. Months later, your lies are discovered and you are charged with perjury. What is the likelihood that you would think you are a despicable human being? (10)

You strongly defend a point of view in a

discussion, and though nobody was aware of it, you realize that you were wrong. What is the likelihood that this would make you think more carefully before you speak? (11)

You take office supplies home for personal use and are caught by your boss. What is the likelihood that this would lead you to quit your job? (12)

You make a mistake at work and find out a coworker is blamed for the error. Later, your coworker confronts you about your mistake. What is the likelihood that you would feel like a coward? (13)

At a coworker's housewarming party, you spill red wine on their new cream-colored carpet. You cover the stain with a chair so that nobody notices your mess. What is the likelihood that you would feel

that the way
you acted was
pathetic? (14)

While
discussing a
heated subject
with friends,
you suddenly
realize you are
shouting
though
nobody seems
to notice.

What is the
likelihood that
you would try
to act more
considerately
toward your
friends? (15)

You lie to
people but
they never
find out about
it. What is the
likelihood that
you would
feel terrible
about the lies
you told? (16)

Page Break

Q12 Procrastination is defined as voluntarily delaying an intended course of action that needs to be done despite expecting to be worse off for the delay.

To what degree do you believe your procrastination is caused by:

	Disagree strongly 1 (1)	Disagree 2 (2)	Disagree slightly 3 (3)	Neither agree nor disagree 4 (4)	Agree slightly 5 (5)	Agree 6 (6)	Agree strongly 7 (7)
Other people (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Something you did (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bad luck (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your personality (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your abilities (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your attitudes (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your character (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break



Q13 Writing Prompt:

Think about a time that you procrastinated that made you feel badly about yourself.

Procrastinating is defined as voluntarily delaying an intended course of action that needs to be done despite expecting to be worse off for the delay.

Below, please describe the event and provide details regarding: What led up to the event
Precisely what happened How you felt and behaved at the time

End of Block: Beginning

Start of Block: Control Block



Q14 Write two paragraphs about furniture.

End of Block: Control Block

Start of Block: SK Block



Q23 Write two paragraphs expressing understanding, kindness, and concern to yourself about your procrastination experience in the same way that you might express concern to a friend.

End of Block: SK Block

Start of Block: CH Block



Q16 Write two paragraphs about how other people also experience similar events to your procrastination experience.

End of Block: CH Block

Start of Block: Full SC



Q17 Write a paragraph about how other people also experience similar events to your procrastination experience.

Then write a paragraph expressing understanding, kindness, and concern to yourself about your procrastination experience in the same way that you might express concern to a friend.

End of Block: Full SC

Start of Block: DV

Q18 This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word.

Indicate to what extent you agree or disagree that you feel this way right now, that is, at the present moment.

Right now I am:

	Disagree strongly 1 (1)	Disagree 2 (2)	Disagree slightly 3 (3)	Neither agree nor disagree 4 (4)	Agree slightly 5 (5)	Agree 6 (6)	Agree strongly 7 (7)
Interested (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distressed (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excited (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Upset (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guilty (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scared (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hostile (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiastic (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proud (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritable (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alert (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ashamed (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspired (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nervous (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Determined (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attentive (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jittery (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Active (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Afraid (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q19 Right now...

	Disagree strongly 1 (1)	Disagree 2 (2)	Disagree slightly 3 (3)	Neither agree nor disagree 4 (4)	Agree slightly 5 (5)	Agree 6 (6)	Agree strongly 7 (7)
I'm trying to be kind and reassuring to myself (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm being understanding towards myself (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm trying to take a supportive attitude towards myself (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It's okay to make mistakes (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm being hard on myself (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm being intolerant towards those aspects of my personality that I don't like (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel stupid (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A lot of people have negative experiences, I'm not the only one (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Everyone makes mistakes sometimes (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Everyone feels bad about themselves sometimes (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I feel like other people have it easier than me (11)

These types of things seem to happen to me more than to other people (12)

In the scheme of things, this is not that big of a deal (13)

I'm taking a balanced perspective on the situation (14)

I keep thinking about what happened (15)

I feel consumed by feeling of inadequacy (16)

End of Block: DV

Start of Block: Summary Screen

Q22

Below is a summary of both of your previous writing tasks. Please read these over.

`#{Q13/ChoiceTextEntryValue}`

`#{Q14/ChoiceTextEntryValue}`

`#{Q23/ChoiceTextEntryValue}`

`#{Q16/ChoiceTextEntryValue}`

`#{Q17/ChoiceTextEntryValue}`

End of Block: Summary Screen

Start of Block: Creative Proposal Written Task Part 1



Q21 A restaurant in the heart of New York City is being shut down.
What creative business idea would you suggest for the empty space?

Due to rising labor costs, a restaurant in the heart of the New York city has gone bankrupt and is being shut down. The building owner is trying to decide what new business should go into that space (about 2000 square feet).

Your main task is to come up with a creative and practical business idea and write a business proposal on it. First, write down all the ideas that come to mind.

End of Block: Creative Proposal Written Task Part 1

Start of Block: Creative Proposal Written Task Part 1

Q24 Below are the ideas you just submitted.

`#{Q21/ChoiceTextEntryValue}`

Q25 Choose 1 or 2 of your best ideas (most creative and practical) and write business proposals on them. Describe your idea in detail in your business proposal.



Q23 Business Proposal #1

Q26 Business Proposal #2

End of Block: Creative Proposal Written Task Part 1

Start of Block: Thank you

Q27 Thank you for your participation in this survey! We appreciate your time!

The goal of this study was to understand how different self-compassion interventions mediated your response to procrastination and affected the creativity of your proposals.

End of Block: Thank you

Directions for Reviewers

“Please see attached for the commercial ideas for creativity rating. They are from an experiment that I ran. What I am asking you to do is to please rate these ideas 1-7 (1= not at all creative, 4 = somewhat creative, 7 = very creative). Please write your rating to the right of the business proposal in the labeled columns (Column D and Column F). If there is no response, please leave the rating cell blank.

One thing to note is that creativity is defined as the generation of ideas that are **both novel and useful**. Thus, to be creative, ideas must be both new and seen as having the potential to create value for organizations in short or long run.”

IX. ACKNOWLEDGEMENTS

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