Self-Compassion and Self-Control:

Is Self-Compassion Possible After Ego Depletion?

by

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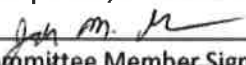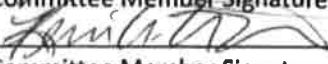Department of Psychology

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Abstract

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Is Self-Compassion Possible After Ego Depletion?

Mary Kate Jones

Pilot studies indicate that self-compassion requires overriding habitual thinking, suggesting it may require self-control. The present study investigated the effect of depleted self-control on state self-compassion. Depleted participants were hypothesized to be less self-compassionate following failure than non-depleted participants. Trait self-compassion, measured beforehand, was expected to moderate the effect. One-hundred fifteen participants completed a difficult GRE test, a concentration task or Solitaire task, a manipulation check including a false failing GRE score, and two state self-compassion measures. The compassionate message length measure was not significantly predicted. Using the scale measure, there was a significant positive correlation with trait self-compassion. There was also an interaction between trait self-compassion and ego depletion, such that ego depletion resulted in higher state self-compassion only for those with low trait self-compassion. The positive effect of ego depletion may be due to a floor effect or distraction.

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Introduction

Self-compassion, which is a mindful, caring response to personal suffering, has been shown to boost many positive mental and behavioral outcomes while buffering against many negative outcomes (for a summary, see Barnard & Curry, 2011). For many people, however, the response to personal problems that comes more naturally is self-criticism and dwelling; this means that being self-compassionate often requires overriding habitual ways of thinking (Gilbert & Irons, 2004; Pauley & McPherson, 2010). Of course, the self-control needed for inhibiting a habitual response can be quite difficult, but it becomes even more difficult when a person is already mentally exhausted. The strength model describes self-control (the act of resisting or changing automatic thoughts, behaviors, and feelings) as a finite renewable resource that is depleted when used; the state in which the resource is depleted, and thus self-control can no longer be used, is known as "ego depletion" (Baumeister & Heatherton, 1996; see Hagger, Wood, Stiff, & Chatzisarantis, 2010, for an overview). If self-compassion requires self-control, then it should be susceptible to the effects of ego depletion, making self-compassion more difficult to use when self-control has already been exerted beforehand. This would be especially troublesome, because self-compassion could be a beneficial reaction to situations that demand self-control, such as interpersonal conflict (when we resist aggressive desires) or persisting on a difficult task (when we resist the urge to quit). In line with the above reasoning, this study combines the self-compassion and ego depletion literatures and investigates a potential connection between these two phenomena.

Self-Compassion

Neff (2003a, 2003b) identified self-compassion as having three components: self-kindness, common humanity, and mindfulness. Self-kindness involves an effort to soothe oneself using sympathetic warmth and understanding, without being self-critical. It does not, however, mean refusing responsibility for what one has done. For instance, someone exhibiting self-kindness might say, "I made a mistake, but that does not make me an idiot. It will be okay." Common humanity refers to understanding that one's failures and flaws are simply part of the normal human condition and that one is not isolated. It is the acknowledgment that comes with the phrase, "Everyone makes mistakes." Mindfulness, as it relates to self-compassion, means an objective awareness of and acceptance of one's negative thoughts and feelings, without suppression or exaggeration. As an example, in times of sadness, mindfulness would involve acknowledging that sadness as it is and letting oneself feel it without overindulging in it.

"Mindfulness" is also a term used more generally outside of self-compassion, but to avoid confusion, it is important to note that it is a broader term than the mindfulness component of self-compassion. Although the general term also pertains to attending to positive thoughts and feelings as well as sensations, such as being mindful of your breathing (Bishop et al., 2004), mindfulness within self-compassion is strictly limited to orienting attention toward negative thoughts and feelings (Neff, 2003a; 2003b; Neff & Dahm, in press). Furthermore, research provides evidence of their distinctness: for instance, compared to mindfulness in general, self-compassion is a better predictor of self-acceptance, personal growth, autonomy, positive relations with others, and purpose in life (Baer, Lykins, & Peters, 2012).

Unlike mindfulness alone, self-compassion as a whole is a response to personal suffering

in which there is a deep concern for the self and a desire to be free from that suffering (Neff, 2003a; 2003b). It is much like compassion for others, which allows people to acknowledge another's pain (mindfulness), connect with it as part of the human experience (common humanity), and work toward comforting the person (kindness). The difference between self-compassion and compassion for others is that self-compassion is instead directed inwardly. As it is a response to the commonplace experience of suffering, self-compassion has the potential to be used regularly, and that alone makes it an important topic.

Beyond this, however, a growing body of research has linked self-compassion with numerous benefits, particularly for mental health. A meta-analysis including 14 publications, 20 samples (total N = 4,007, including students, clinical samples, community samples, and therapists, in the U.S., Thailand, and Taiwan), and 32 effect sizes showed that those with greater self-compassion, as measured by the Self-Compassion Scale (Neff, 2003a), are less likely to experience depression, anxiety, and stress (MacBeth & Gumley, 2012). Self-compassion has been shown to partially explain the association between attachment anxiety and mental health for both student and community samples (Raque-Bogdan, Ericson, Jackson, Martin, & Bryan, 2011; Wei, Liao, Ku, & Shaffer, 2011), and it also partially mediates the effect of a yoga program on quality of life and stress (Gard et al., 2012). Additionally, those high in self-compassion also report being high in happiness, optimism, positive affect (Neff, Rude, & Kirkpatrick, 2007; Neff & Vonk, 2009), and life satisfaction (Neff, 2003a), and report being low in negative affect (Neff et al., 2007). High self-compassion also buffers against unstable self-esteem, contingent self-esteem (self-esteem dependent on achieving something else, such as acceptance from others or academic success), social comparison (tendency to compare oneself to others), anger, self-

rumination (anxious examination of and dwelling on the self), public self-consciousness (concern about one's presentation to others), and need for cognitive closure (difficulty with ambiguity and not knowing) (Neff & Vonk, 2009). These studies examined self-compassion using the Self-Compassion Scale (Neff, 2003a), a scale with good construct and discriminant validity and a test-retest reliability of .93. It is made up of 26 Likert scale items tapping into each of the three components of self-compassion (self-kindness, common humanity, and mindfulness).

In a set of experimental studies using a different measure of self-compassion (Breines & Chen, 2012), participants were instructed to identify a personal weakness or past wrongdoing and then were assigned to one of three conditions: self-compassion, self-esteem, or a control. The self-compassion condition involved writing a compassionate response regarding their weakness or wrongdoing, while the self-esteem condition involved writing a self-affirming response. Those in the control condition wrote either no response or about a favorite hobby instead. The authors found that those who had been induced to feel self-compassion were more likely to believe their weaknesses could be changed, want to make amends for their past mistake, avoid committing their mistake again, prefer talking to someone who had overcome a similar weakness (as opposed to someone who had not overcome it or someone who had a worse weakness), and feel motivation to change their weakness. The general finding of taking responsibility for mistakes and striving for self-improvement was also supported by a correlational study (Neff et al., 2007). This is contrary to the common sense notion that self-compassion would involve being too easy on oneself.

Unfortunately, being self-compassionate can be very difficult for many people when self-criticism, feelings of isolation, and exaggeration of one's problems are often more habitual

responses. In a pilot study in which self-critical participants were taught to use self-compassionate imagery (Gilbert & Irons, 2004), the participants agreed that being self-compassionate required breaking deeply-rooted habits, and they described their self-criticisms as automatic and difficult to avoid. Another exploratory study (Pauley & McPherson, 2010), which educated participants with anxiety or depression about self-compassion and had them discuss their thoughts on it, found that many participants expressed concerns about being able to change their long-held non-compassionate ways of thinking and considered all three aspects of self-compassion to be difficult. Although these are clinical populations, it is likely that this difficulty would apply to the general, non-clinical population as well, albeit to a less extreme extent. This would mean that self-compassion requires some degree of self-control, at least until it becomes a more automatic pattern of thought.

Determining the influence of self-control on self-compassion is important, as it could have implications for certain therapies. Mindfulness-based approaches in particular are likely to bear strong resemblance to self-compassion because they typically involve concern for the self and a desire to end suffering, major elements of self-compassion, and this is coupled with mindfulness, one of the three components of self-compassion. In fact, mindfulness-based stress reduction (MBSR), a therapy that focuses on meditation and yoga to increase mindfulness, has been shown to increase self-compassion as a whole (Shapiro, Astin, Bishop, & Cordova, 2005; Shapiro, Brown, & Biegel, 2007) as well as each of its three components (Birnie, Speca, & Carlson, 2010). Reduction of depressive symptoms as a result of mindfulness-based cognitive therapy has also been associated with increases in self-compassion (Kuyken et al., 2010); in other words, the therapy boosts self-compassion which then improves symptoms. Furthermore,

mindfulness training and self-control have been linked, in that training in mindfulness meditation increases activity in brain areas associated with self-control (Tang, Tang, & Posner, 2013). This suggests that mindfulness-based approaches train clients in self-control and that at least one component of self-compassion (i.e. mindfulness) is associated with self-control. Thus, mindfulness treatments may be capable of producing greater, faster benefits if the characteristics of self-control are kept in mind. For instance, with shorter, more frequent sessions, clients could obtain faster results and get more out of the same amount of practice by not overtaxing their resources and causing ego depletion. Understanding how self-control works may also help clients be more forgiving of themselves when they fail to be self-compassionate. Furthermore, as will be discussed in more detail later, training self-control in one domain leads to better self-control in all domains (Gailliot, Plant, Butz, & Baumeister, 2007; Oaten & Cheng, 2006), so giving clients training in unrelated self-control tasks may help them to be more mindful or self-compassionate. Much of this is speculation, however, and other research would be needed to address this. Still, the involvement of self-control in being self-compassionate would have importance even for those outside of clinical settings, as failure and inadequacy (i.e. opportunities for being self-compassionate) are a daily reality for many individuals.

Self-Control

Self-control is the effort to override or change automatic thoughts, feelings, or behaviors. Researchers have pointed out that not all effortful tasks involve self-control; for instance, doing math problems does not involve resisting desires, thoughts, or behaviors, except perhaps resisting the urge to quit (Muraven & Baumeister, 2000). Thus, it is the effort to resist or change that defines self-control. Acts of self-control span several domains, including control of behavior,

thoughts, emotions, attention, or even a combination of these. For instance, one study showed that instructing individuals to avoid prejudice during an interracial interaction led to poorer performance on the Stroop task (a self-control task) compared to instructions to merely have a positive interracial interaction, suggesting that explicitly avoiding prejudice requires and depletes self-control (Trawalter & Richeson, 2006).

Researchers have proposed the strength model of self-control, which describes self-control as a renewable, finite resource (Baumeister & Heatherton, 1996). It is compared to a muscle in that it becomes exhausted with use but will become fully functional again after it is given enough of a break. This would mean that exercising self-control in one instance will make exercising self-control shortly afterward more difficult. This may be due to the depletion of blood glucose in the brain, as self-control efforts have been associated with glucose levels (for a review, see Gailliot & Baumeister, 2007). Several studies support this model.

Baumeister, Bratslavsky, Muraven, and Tice (1998) conducted a series of studies to provide evidence for the strength model of self-control. In their first study, participants were seated in a room that smelled like freshly baked cookies. A plate of chocolate chip cookies and a plate of radishes were on the table, and participants were instructed to eat either one or the other. Those who were instructed to eat the radishes were thought to require self-control in order to resist the more delicious cookies. They were left alone to eat their assigned food but were secretly observed to ensure they followed instructions. A third group was not presented with any food at all. Next, subjects were asked to participate in what was described as a separate study, which involved a figure-tracing puzzle task. Unbeknownst to the participants, the puzzles were impossible to solve, and the dependent measure was how long they persisted in the face of

failure. The authors found that those in the radish condition gave up more quickly and made fewer attempts at the puzzle than either of the other two groups, which did not differ from one another. This suggests that exerting self-control decreases performance on later attempts at using self-control. Because this implies that self-control is a limited resource, these results provide support for the concept of ego depletion.

Baumeister et al. (1998) ran another study using solvable anagram puzzles in order to rule out the possibility that giving up on the figure-tracing task was actually an adaptive response to an impossible task. The anagrams task required participants to persist, trying various combinations of letters, until they arrived at a solution. Participants worked on the anagrams following an emotion-suppression video task in which they watched emotionally evocative videos either normally or with the instruction to suppress all emotional reactions (a form of self-control). The authors found the same results as in the previous study: Those who exerted self-control during the video task (i.e. suppressed emotion) solved fewer anagrams than those who did not. Overall, these studies seem to provide evidence that self-control is a limited resource. The studies also demonstrate that this limited resource is the same one used for a variety of self-control tasks, as opposed to there being separate resources for each type of self-control. Thus, using self-control to resist sweets not only makes it harder to resist sweets in the future, but it also makes it harder to exert any other kind of self-control. Fortunately, and in line with the strength model, those who take a break between self-control tasks do not show decrements in performance (Tyler & Burns, 2008), demonstrating that self-control is replenished when not in use.

The model also predicts, as mentioned above, that ego depletion can be minimized

through training or practicing; this minimized effect should be seen across domains of self-control, rather than be limited to the practiced task (Baumeister & Heatherton, 1996). In support of the model, one longitudinal study showed that, relative to controls, those who trained in self-control through a semester-long academic study program showed less ego depletion (i.e. performed better) on a visual tracking task that was completed after a thought suppression task (both self-control tasks); participants also reported improvement in a variety of important self-control tasks. They decreased smoking, drank fewer alcoholic and caffeinated drinks, and they improved their diet, study habits, emotional control, spending habits, exercise habits, and time management (Oaten & Cheng, 2006). In a series of studies, participants who were instructed to practice self-control for two weeks, such as by using their non-dominant hand or refraining from cursing, showed less ego depletion following a stereotype suppression task, compared to those without self-control practice; it was also shown that participants who had recently and more frequently used self-control outside the lab (e.g. controlled their diet) showed less ego depletion in a stereotype suppression task (Gailliot et al., 2007). Because the benefits of practice in self-control are seen across domains, it seems that the use of the self-control in general becomes more efficient. It is unclear how long these benefits persist or whether they disappear with disuse.

Hagger et al. (2010) compiled in a meta-analysis the numerous studies that have tested the strength model to determine its overall level of support. This meta-analysis included 83 experiments and 198 separate tests of the model ($N = 10,782$). They found a medium to large effect size ($d^+ = 0.62$) for the overall effect of ego depletion. The analysis indicated further that it is highly unlikely that enough studies with null findings could exist in order to invalidate the effect. This means that support is strong for the existence of ego depletion.

The Present Study

If self-compassion involves overriding habitual modes of thinking, it should be difficult or impossible during times of ego depletion when there are few resources remaining for self-control. As self-compassion can easily be a reaction to circumstances that required self-control (particularly since self-control failures themselves can result in negative self-evaluations), it is important to determine if this is the case. Furthermore, there could be implications for many mindfulness therapies that resemble self-compassion, as previously discussed, such that greater or faster benefits may be obtained by keeping the strength model of self-control in mind. It is understood that self-compassion for many people is effortful and contradicts habitual ways of treating the self (Gilbert & Irons, 2004; Pauley & McPherson, 2010), and there is overwhelming evidence in support of ego depletion and the strength model of self-control (see Hagger et al., 2010). However, no known study has previously investigated this possible connection between self-compassion and self-control.

The present study investigated the effect of ego depletion on the ability to be self-compassionate in the moment. Participants took a prescreen scale on trait self-compassion, took a difficult brief GRE-style test on which they received a fake failing score, completed a depleting or non-depleting task, and then reported their level of self-compassion in response to the GRE test failure. The independent variables were trait self-compassion and depletion condition, with the dependent variable being state self-compassion. It was predicted that higher trait self-compassion would be associated with greater state self-compassion, because the trait should be relatively stable. It was also hypothesized that ego depletion would be associated with self-compassion, controlling for trait self-compassion, such that those experiencing ego depletion

would have more difficulty exercising self-compassion, as they should lack the self-control needed to resist the habitual judgmental response. Because those with high self-compassion were expected to have more practice at being self-compassionate in their day-to-day lives, and in line with self-control training research (Gailliot et al., 2007; Oaten & Cheng, 2006), it was also hypothesized that there would be an interaction such that those with high levels of trait self-compassion would be less affected by ego depletion, relative to those with low trait self-compassion.

Method

Participants

Based on medium effect sizes ($f^2 = .15$) typically found in ego depletion research (Hagger et al., 2010) and an alpha-level of .025, a power analysis suggests a minimum sample size of 81 participants for adequate power of 0.8. Using the university's research pool, 115 students signed up and participated (103 females, 16 males, 1 other). An additional six participants were excluded for at least one of the following reasons: not being fluent in English ($n = 1$), familiarity with the GRE ($n = 3$), and suspicion regarding the GRE test ($n = 2$). Participants were at least 18 years old and to have taken a self-compassion pre-test ($M = 2.97$, $SD = 0.656$). All received class credit for participating.

Design

The independent variables were the ego depletion condition (depletion vs. no depletion) and trait self-compassion (continuous measure from 1 to 5, 5 being high). The dependent variable was the participant's ability to be self-compassionate, as measured by a state self-compassion measure and the length of a comforting message written to him or herself.

Measures

  Self-Compassion Scale—Short Form. Trait self-compassion levels were measured using the abbreviated version of the Self-Compassion Scale developed by Raes et al. (2011). This scale has high internal consistency ($\alpha = .98$), and is highly correlated with the original SCS ($r = .98$, $p < .05$). The instructions are to indicate how often the participant behaves in the manner stated in each of the 12 items, using a 5-point Likert scale with labels "almost never" and "almost always". An example of an item is "When something painful happens I try to take a balanced view of the situation." After reverse coding certain items, the scale is scored by computing the participant's mean response.

  Manipulation Check. Participants were asked about how mentally exhausted they felt from either the concentration task or Solitaire. They were also asked how satisfied (versus disappointed) they were with their score on the GRE-style test. Both questions used a 7 point Likert scale. A fake score of 3 out of 8 correct and a percentile of 39 was handwritten next to the score satisfaction question for each participant.

  State Self-Compassion Scale. Participants were asked to recall how well they did on the GRE test while answering the State Self-Compassion Scale. The scale included 16 items with 5-point Likert scales, as used by Breines and Chen (2013; Studies 1 & 4), and is scored by taking the mean of the participant's responses after some items are reverse coded. This questionnaire is based on the original trait Self-Compassion Scale (SCS; Neff, 2003a), with questions eliminated or reworded to be appropriate instead for a state perspective. An example item is "I'm trying to take a supportive attitude towards myself." Breines and Chen (2013) showed that the scale was positively correlated with the original SCS ($r = 0.61$, $p < .05$) and was internally consistent ($\alpha =$

.76). In the present study, internal consistency was .87.

Self-Compassionate Message Exercise. Participants were instructed to write down as many comforting suggestions to themselves as they could regarding their performance on the GRE test. This was intended to be a more ecologically valid measure of self-compassion, demonstrating that not only could they say that they were being self-compassionate in a survey but they could also actually express self-compassion to themselves actively. The length of the message (i.e., number of words) was used as a measure of state self-compassion, as it should suggest more effortful processing in being self-compassionate (Breines & Chen, 2013; Study 3). Breines and Chen (2013) found that message length was significantly correlated with qualitative evidence of self-compassion in the message ($r = .55$, $p < .05$), suggesting the length can imply level of self-compassion in the moment.

Procedure

Before coming into the lab, participants completed a pretest, which included the Self-Compassion Scale—Short Form (Raes et al., 2011), so that preexisting self-compassion levels could be included in the analyses. The purpose of using a pretest rather than measuring during the actual experiment was so that participants would not be cognizant of their own self-compassion throughout the study.

Participants were brought into the lab in groups of up to three and seated individually in separate rooms. So that participants would not suspect the true purpose, a consent form explained that the focus of the study involved assessing various mental abilities. After giving consent, the experimenter administered a test composed of 4 GRE math questions and 4 GRE reading questions. Participants were led to believe the test was truly representative of the full length GRE

and of average difficulty. Both the consent form and the test instructions explained that the test is

an indicator of their academic ability and future career advancement. In reality, the test was

composed entirely of very difficult questions, with the exception of two easy questions to create

credibility. This test was used to give participants a failure to which they could react with (or

without) self-compassion. Participants had 12 minutes to complete the test.

After the fake GRE test, participants were randomly assigned to either the "concentration

task" (depleting condition) or the "puzzle task" (a control). This was the ego depletion

manipulation, based on procedures used in past research (e.g., Baumeister et al., 1998; Fennis,

Janssen, & Vohs, 2009; Tyler, 2008) and shown to have a large effect size (Hagger et al., 2010; d

$^+ = 0.77$). In the depleting condition, participants were first given a set of instructions telling

them to "cross off every instance of the letter 'e' as quickly and accurately as you can" in the

block of text provided. The block of text contained 203 words, with highly technical

neuroscience language, with alternating passages taken from two different journal articles. This

was to ensure that participants would focus on the task itself rather than on understanding the

content of the page. Participants were told that this first, shorter page was intended to be practice

and that they should only work on it until they had gotten used to it; then, they should move on

to the next page. The next page was longer (680 words) and involved more complicated

instructions, as follows: "As quickly and accurately as you can, cross off every instance of the

letter 'e' EXCEPT when next to another vowel or two letters away from another vowel. For

instance, you would cross off the 'e' in the word 'kettle' but not in 'pea' or 'level'." Thus, for the

second page, participants had to resist the urge to simply cross off every letter "e" and instead

had to keep separate rules in mind, inducing ego depletion. This task was timed, and participants

continued to work on it until they were interrupted after 8 minutes. In the control "puzzle"

condition, participants played Solitaire on the computer for 8 minutes.

Directly following the ego depletion manipulation, participants answered the brief

manipulation check regarding mental exhaustion and test score satisfaction. Next to the score

satisfaction question, the experimenter wrote a fake score of 3 out of 8 correct and a percentile of

39. This fake score was used to ensure all participants received a disappointing score. Those in

the ego depletion group were expected to report higher mental exhaustion scores than the control

group. All participants were expected to report low satisfaction scores.

Finally, participants were asked to recall how well they did on the GRE test in order to

measure their ability to be self-compassionate in two ways. First, participants completed the state

self-compassion scale (Breines & Chen, 2013). Second, participants completed the more active

measure of state self-compassion, in which they were instructed to recall their performance on

the test and then write down as many comforting suggestions to themselves as they could

regarding their performance (Breines & Chen, 2013). Because this measure has only been used

once before, its use in this study also serves to replicate findings regarding its usefulness.

Results

Manipulation Check

Mean level of satisfaction with the GRE scores was 2.39 (SD = 1.09) out of a total of 7

points, suggesting participants were generally disappointed with their scores.

An independent samples t-test was conducted to determine whether the conditions

differed significantly on the mental exhaustion report. As the Levene's test showed inequal

variances between the groups (p = .014), the corrected statistics are reported. The t-test showed

that the two conditions significantly differed on mental exhaustion, $t(104.8) = -4.798$, $d = 0.90$, p < .001, with those doing the concentration task reporting greater mental exhaustion ($n = 58$, $M = 4.76$, $SD = 1.455$) than those playing Solitaire ($n = 56$, $M = 3.27$, $SD = 1.834$). One participant (in the control condition) was excluded from the mental exhaustion analysis because he did not answer the relevant item; however, this participant is included in the tests of the hypotheses.

Tests of the Hypotheses

Cook's distance, with a criteria of 1 or greater (Stevens, 1984), was used to ascertain whether the results may be guided by influential outliers. However, no outliers were found.

The independent variables in the present study are level of ego depletion (depleted, coded as 1, or not depleted, coded as -1) and preexisting trait self-compassion levels (continuous on a scale from 1 to 5). The dependent variable, state self-compassion, is measured two ways: 1) the state self-compassion scale (from 1 to 5; $M = 3.71$, $SD = 0.605$) and 2) the length of the written self-compassionate message (ranged from 0 to 147 words; $M = 47.53$, $SD = 26.281$).

Two hierarchical regressions were used to analyze both main effects and interaction effects, one for each of the dependent measures, and an alpha of .025 (equivalent to half of .05) is used to account for the use of two analyses. In both cases, trait self-compassion was entered in the first step to control for this variable, as it is a preexisting variable. Then, ego depletion was entered in the second step, and the interaction variable (the product of the two independent variables) was entered in the third step.

State Self-Compassion Scale

When the state self-compassion scale was the dependent measure, the first step of model was significant ($R^2 = .165$, $F(1, 113) = 22.315$, $p < .001$). There was a main effect of trait self-

compassion on state self-compassion, such that those with high trait self-compassion tended to report being more self-compassionate in the moment than those with low trait self-compassion. Ego depletion added little variability to the model ($\Delta R^2 = .011$, $F(1, 112) = 1.544$, $p = .217$). The interaction term also added significant variability in the third step of the model ($\Delta R^2 = .099$, $F(1, 111) = 15.101$, $p < .001$), suggesting an interaction effect.

In order to interpret the interaction effect, a simple effects analysis was conducted. To do this, trait self-compassion was dichotomized, with those scoring above a 3.0 (the midpoint on the scale) labeled "high" ($n = 53$) and the remainder labeled "low" ($n = 62$). The analysis showed that the control group (not depleted) and experimental group (depleted) differed only within the low trait self-compassion group, $F(1, 111) = 5.662$, $\eta^2 = .049$, $p = .019$, and not among those with high trait self-compassion, $F(1, 111) = 1.324$, $\eta^2 = .012$, $p = .252$. Additionally, the difference between the high and low trait self-compassion groups was only significant within the control condition, $F(1, 111) = 14.789$, $\eta^2 = .118$, $p < .001$, whereas these two groups did not differ within the experimental condition, $F(1, 111) = 0.141$, $\eta^2 = .001$, $p = .708$. In other words, ego depletion had an effect only if the participant had low trait self-compassion, such that ego depletion actually resulted in greater self-compassion in the moment compared to the control condition. High trait self-compassion, relative to low trait self-compassion, was associated with greater state self-compassion only in the control condition. See Figure 1 for a graph of the interaction.

Compassionate Message Measure

When the length of the compassionate message was the dependent measure, the model was not significant ($R^2 = .004$, $F(3, 111) = .135$, $p = .939$). Neither trait self-compassion ($R^2 = .003$, $F(1, 113) = .362$, $p = .549$) nor ego depletion ($\Delta R^2 = .000$, $F(1, 112) = .021$, $p = .885$) were

significant predictors, and there was no interaction (ΔR^2 = .000, $F(1,111)$ = .029, p = .865).

Because the length of the message was not significantly predicted by the model, a bivariate correlation between the two dependent measures (the state self-compassion scale and the length of the compassionate message) was computed in order to evaluate the message length measure's construct validity in this study. The correlation was non-significant, r = -.171, p = .053, suggesting no construct validity.

Discussion

This study investigated the effect of ego depletion on the ability to be self-compassionate in the moment, as well as an interaction effect with trait self-compassion. Three hypotheses were proposed. First, it was hypothesized that trait self-compassion would be positively correlated with state self-compassion. This was supported for only one of the dependent measures. As expected, those with greater trait self-compassion were more likely to report higher state self-compassion when it was measured using the self-report scale. However, no effect on the length of the message was found.

The length of the self-compassion message was not significantly correlated with reports on the state self-compassion scale. Because the scale was related to trait self-compassion in this study, the lack of correlation between the two dependent measures seems to suggest a lack of construct validity specifically for the measure involving the length of the compassionate message. In other words, the measure was not particularly effective at measuring levels of self-compassion. This may be because word count is likely influenced by individual differences in writing style. For instance, word count can easily be affected by whether an individual tends to use contractions (e.g., "don't"; one word) rather than avoid them (e.g., "do not"; two words).

Breines and Chen (2013), the only known study to have used this measure, did control for the

tendency to be a lengthy writer, using writing taken from earlier in their study, and they found no

difference in results; however, controlling for this was not possible in the present study, because

participants were not asked to write anything else. Breines and Chen reported that the length of

the messages in their study was positively correlated with qualitative evidence of self-

compassion within the messages (a more direct measure of self-compassion; $r = .55$); still, this

correlation may not be as high as would be expected if the two were measuring the same

variable. Additionally, they found no effects related to the qualitative evidence of self-

compassion, despite finding effects for length of the message. If the two measured the same

construct, then it would be expected that they have the same effect. In short, it appears that the

message length measure is suspect until further research clarifies further its psychometric

properties.

The second hypothesis, regarding a main effect of ego depletion, was not supported. The

ego depletion manipulation had no effect on state self-compassion levels. It is possible that this

was because participants in the experimental group were not sufficiently ego depleted. Although

those in the depleting condition reported significantly greater mental exhaustion than the control

group, their reports fell below the ceiling on mental exhaustion ($M = 4.76$ out of 7). Relative to

those in the present study, participants in other studies have sometimes spent slightly longer

amounts of time working on the depleting task (e.g., 10 minutes; see Baumeister et al., 1998,

Study 3; Tyler, 2008, Study 3), which may be necessary to induce sufficient ego depletion to see

effects. A meta-analysis (Hagger et al., 2010) showed a marginally significant effect of time

spent working on the task on the ego depletion effect, suggesting that longer tasks may result in

greater ego depletion. The lesser amount of time used in this study (8 minutes) was necessary to allow for sufficient time on the GRE test while maintaining a total time of 30 minutes for the entire study. Pilot testing showed that participants were more suspicious of the test and less disappointed in their performance when they had an inadequate amount of time to complete the test.

Alternatively, rather than requiring control and effort, being self-compassionate in the moment may be a matter of *remembering* to be self-compassionate. That is, those with high trait self-compassion have likely made a habit of remembering to be self-compassionate, much like an automatic reaction, but those with moderate or low self-compassion may simply forget from time to time that it is an option. In those cases, the individual instead may default to criticism and overindulgence in negative thoughts and feelings, unless something reminds him or her to be self-compassionate. In the present study, participants were undoubtedly reminded of self-compassion by the last two measures in the study, which either included self-compassionate wording or direct instructions to be self-compassionate. Thus, one could argue that simply having compassion as a salient concept in one's mind is enough to boost state self-compassion. After being reminded, individuals would then rely on their knowledge of compassionate behavior and cognition in order to direct compassion toward themselves, without necessarily requiring the effortful control that might be exhausted by ego depletion. Support for this idea comes from Breines and Chen (2013), who found that being reminded of giving compassion to someone else was enough to boost state self-compassion. On the other hand, reminding oneself to be self-compassionate may require a great deal of attention toward one's thoughts and a recognition of self-criticism and overindulgence in negativity. It may be this process that requires

some degree of control.

The final hypothesis, which predicted an interaction between ego depletion and trait self-compassion on the ability to be self-compassionate in the moment, was partially supported, but not in the expected direction. High trait self-compassion was associated with greater self-compassion in the moment compared to low trait self-compassion, but only for the non-depleted group. On the other hand, ego depletion only resulted in significant group differences for low trait self-compassion, and this relationship was a positive one: Ego depletion was linked with greater state self-compassion for these participants. Although the difference between high and low trait self-compassion was in the expected direction, the difference between ego depletion and the control condition for those with low trait self-compassion was in the opposite direction.

It is unclear why the interaction was opposite of expectations. People who have practice with self-compassion and exercise it regularly likely require less effort, if any at all, to be self-compassionate. Therefore, weakened self-control would not have much of an effect on these individuals. That said, it is unclear why ego depletion seems helpful for those with low trait self-compassion, as it was expected to result in lower state self-compassion. Three possible explanation may account for this finding.

For the first explanation, it may be that those with low self-compassion simply respond differently when conditions change. Their general tendency to be uncompassionate toward themselves may only pertain to normal, non-depleted conditions, whereas something about the conditions associated with ego depletion may cause them to shift their thinking. It may be that ego depletion is too stressful and serves as a catalyst to encourage them to use greater self-compassion. However, it is unclear why they would consider a compassionate response

necessary when they are mentally exhausted but not consider it necessary when they are not

mentally exhausted. Attitudes that result in a lack of self-compassion normally (e.g., deserving

criticism, fear of compassion, etc.) would probably not change with mental exhaustion.

Alternatively, those with low self-compassion may be using effort normally to criticize

themselves and exaggerate their troubles, leaving them incapable of their general tendency to do

so when they have been depleted. This also seems unlikely since self-criticism and similar

thinking are often described as habitual, automatic, and effortless. More self-report measures

tapping into the internal experience may be necessary to validate or reject these ideas.

For the second explanation, it is possible that a floor effect influenced the results, such

that participants could not score any lower on state self-compassion. Most participants ($n = 103$,

89.6%) reported moderate to high state self-compassion scores of at least 3.0 (out of 5). Based on

debriefing interviews, it seems they understood that satisfactory GRE performance almost

necessarily requires repeated studying. Therefore, participants did not feel that their performance

was an accurate assessment of their ability, and having low self-compassion did not make sense

as a response. Furthermore, some of the items on the state self-compassion scale, such as "I feel

consumed by feelings of inadequacy," may have been too extremely worded to agree with, while

others, such as "Everyone makes mistakes sometimes," may have seemed too obvious to

disagree with in the context of this study. With this in mind, it makes sense that those in the ego

depletion group still reported high self-compassion, as opposed to the predicted low self-

compassion.

For the third explanation for the interaction, the effect may be a result of something

besides ego depletion. Distraction may have varied significantly between the conditions in a way

that would influence state self-compassion. The experimental condition involved a "concentration task" that was designed to require a great deal of focus in order to deplete participants; on the other hand, the control task, Solitaire, may not take as much concentration, particularly for participants who were familiar with it, as most were. This difference in the necessity to focus may have resulted in differences in distraction. Participants who were focused on their task would have less opportunity to dwell on their test failure, relative to those who were not as focused. Without being able to dwell on it, participants had less opportunity to display a lack of self-compassion and may have confused this for being somewhat self-compassionate when they filled out the state self-compassion scale. This would show up in certain responses to the scale such as "I'm being hard on myself," and "I keep thinking about what happened." As such, it is possible that those in the experimental condition would appear to be less harsh on themselves when they may have just been distracted. Future research could investigate this possibility by using an additional distracting but not depleting task, such as watching an engaging video clip.

A limitation in this study was the use of the GRE test. When asked during debriefing how they felt about the test, most participants immediately reported that they had not prepared for it and would have needed to study beforehand in order to have any expectation of doing well. Thus, although participants reported slight disappointment with their score, few seemed to expect any other result. In fact, some participants expected an even lower score. This may have limited the need for self-compassion and may have led to the fact that most participants reported moderate to high self-compassion, regardless of condition or traits. The scenario was not a negative experience or a failure. Instead, it was a situation they were unprepared for that had no

negative consequences for them and, from their point of view, said little about their abilities or potential. Participants understood this despite the fact that the instructions stated that performance on GRE-style tests is related to academic performance and career advancement. If the situation did not call for self-compassion, state self-compassion would not vary much between the conditions.

Future studies may try to create a scenario appropriate for self-compassion by asking participants to first study for or practice a task on which they later receive false feedback. This would eliminate, or at least lessen, the issue in which participants believed that practice was necessary. Alternatively, participants could be given negative feedback regarding their personality, to which they could respond with self-compassion. Furthermore, when using written messages as measures of self-compassion, it may be beneficial to ask participants to write their natural response to the event in question, rather than asking them to write a specifically self-compassionate response. Otherwise, the reminder of compassion may be enough to boost self-compassion, or participants may be inclined to feign self-compassion simply because they are instructed to do so.

In summary, self-compassion is positively associated with state self-compassion and interacts with ego depletion, such that low self-compassion individuals may benefit from being mentally exhausted. The length of the written compassionate message was not a good measure of state self-compassion. Because many situations that require self-compassion may also deplete one's self-control, such as a heated argument with a loved one, the relationship between ego depletion and self-compassion is an important one. The present study may be a useful starting point in generating knowledge for counselors, therapists, coaches, or anyone else interested in

raising the self-compassion of others, but more research will be necessary beforehand to

replicate, explain, and make use of these findings.

Figures

Figure 1.Graph of the Interaction Effect

Interaction Effect of Trait Self-compassion and Ego Depletion on Reports of State Self-compassion
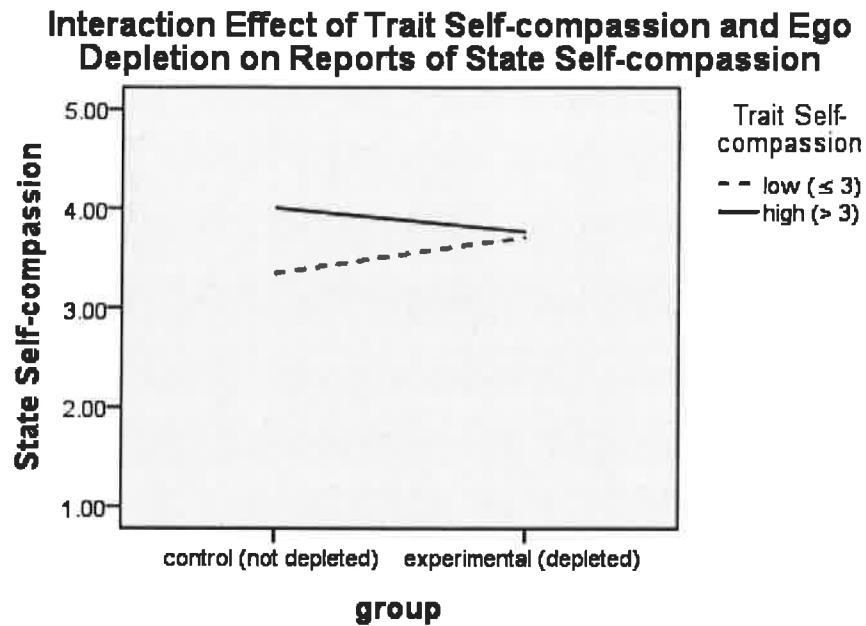
IRB Approval

APPROVAL NUMBER: 14-A086

To: Mary Kate   Jones
          4809 Bayonne Avenue Apt. BN
          Baltimore   MD   21206

From: Institutional Review Board for the Proctection of Human
          Subjects Debi Gartland, Chair

Date: Friday, May 02, 2014

RE: Application for Approval of Research Involving the Use of
          Human Participants

Office of Sponsored Programs
ft Research

Towson University
8000 York Road
Towson, MD 21252-0001

t. 410 704-2236
f. 410 704-4494
www.towson.edu/ospr

Thank you for submitting an Application for Approval of Research
Involving the Use of Human Participants to the Institutional Review
Board for the Protection of Human Participants (IRB) at Towson
University. The IRB hereby approves your proposal titled:

*Self-compassion and self-control: Is self-compassion possible after ego
depletion?*

If you should encounter any new risks, reactions, or injuries while
conducting your research, please notify the IRB. Should your research
extend beyond one year in duration, or should there be substantive
changes in your research protocol, you will need to submit another
application for approval at that time.
We wish you every success in your research project. If you have any
questions, please call me at (410) 704-2236.

CC: J. Govern
       File

NOTICE OF APPROVAL

TO: Mary Kate   Jones   **DEPT:**   PSYC

PROJECT TITLE: *Self-compassion and self-control: Is self-compassion possible after ego depletion?*

SPONSORING AGENCY:

APPROVAL NUMBER: 14-A086

The Institutional Review Board for the Protection of Human Participants has approved the project described above. Approval was based on the descriptive material and procedures you submitted for review. Should any changes be made in your procedures, or if you should encounter any new risks, reactions, injuries, or deaths of persons as participants, you must notify the Board.

A consent form: [√] is   [ ] is not   required of each participant

Assent: [ ] is   [√] is not   required of each participant

This protocol was first approved on: 2014-05-02
This research will be reviewed every year from the date of first approval.

Debi Gartland, Chair
Towson University Institutional Review Board

Materials

INFORMED CONSENT

In this study, you will complete two brief problem-solving tasks. You will also be asked to complete a few short questionnaires on your experience. Both tasks are designed to test some aspect of your mental ability. The first task is a test composed of questions of average difficulty that were taken from past versions of the GRE, a standardized test similar to the SAT used to gain admission to many graduate school programs. Performance on the GRE has been linked to academic success and future career advancement, so this should tell us something about your mental ability. The second task will be one of two options: either (1) a card-based task that assesses puzzle-solving ability, or (2) a word-based concentration task designed to test your ability to maintain focus and to pay attention to details. Due to time limits, you will only need to do one of these tasks.

There are no known risks or discomforts associated with this procedure. Although there are no direct benefits to you, we hope that the results of this study will reveal something about the way humans function in everyday situations. This study should take no more than 30 minutes to complete. You will be given one credit in the research pool for participating.

Your participation is entirely voluntary. You do not have to participate in these studies. If you choose to participate, you may discontinue your participation at any time. You do not have to answer every question that is on the questionnaires. Your decision to participate or not to participate will not influence your grade or class standing.

All information about your responses will remain confidential. If you have any questions, you may ask them now or at any time during the study. If you should have questions after today, you can contact the primary investigator, Mary Kate Jones, at (443) 235-6643 or mjones28@students.towson.edu, the faculty sponsor, Dr. John Govern, at (410) 704-3080 or jgovern@towson.edu, or the Chairperson of the Institutional Review Board for the Protection of Human Participants at Towson University, Dr. Debi Gartland, at (410) 704-2236.

I, _____ affirm that I have read and understand the above statements and have had all of my questions answered.

Date: _____

Signature: _____

THIS PROJECT HAS BEEN REVIEWED BY THE INSTITUTIONAL REVIEW BOARD FOR

THE PROTECTION OF HUMAN PARTICIPANTS AT TOWSON UNIVERSITY.

The following questions are taken from past versions of the GRE, a standardized test similar to the SAT used to gain admission to many graduate school programs. These questions in particular were chosen because they reflect most types of content found in the GRE and have been shown to be of average difficulty, thus making them representative of the full-length exam. Performance on the GRE and on questions like these has been linked to academic success as well as future career advancement, so this test should tell us something about your mental ability. You will receive your score and percentile (rank out of 100, relative to other undergraduate students) later in the study. Read the instructions and/or questions carefully. You will have 12 minutes to complete the test.

Math Section:

1. From the answer choices given, select and indicate the one that describes the relationship between quantity A and quantity B below.
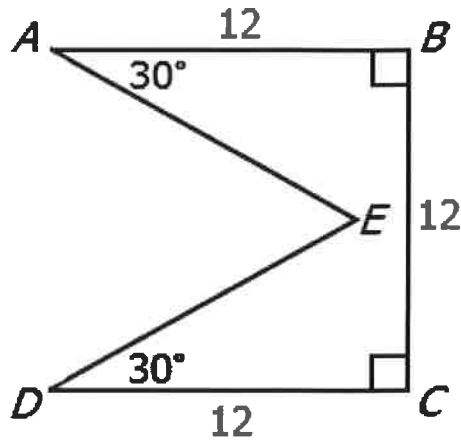
It is given that $(x - 2y)(x + 2y) = 4$.

Quantity A: $x^2 - 4y^2$ Quantity B: 8

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

2. If x, y, and z are positive integers and $3x = 4y = 7z$, then the least possible value of $x + y + z$ is

A) 33
B) 40
C) 49
D) 61
E) 84

3. What is the perimeter of ABCDE in the figure above?

A) $36 + 6\sqrt{3}$
B) 48
C) $36 + 8\sqrt{3}$
D) $36 + 12\sqrt{3}$
E) 60

4. Solution X is 10 percent alcohol by volume, and solution Y is 30 percent alcohol by volume. How many milliliters of solution Y must be added to 200 milliliters of solution X to create a solution that is 25 percent alcohol by volume?

A) 250/3
B) 500/3
C) 400
D) 480
E) 600

English Section:

Instructions: Select exactly **two** words that best complete the sentence and produce sentences that are alike in meaning.

5. Poetaster, who at the outset believed one only needed time to write a great novel, was constantly assailed by misgivings, and before completing even one chapter, he abandoned what he had come to deem a(n) _____ enterprise.

A) unworthy
B) idealistic
C) illusory
D) notable
E) ill-fated
F) quixotic

6. After hours of acrimonious arguments the negotiations reached a(n) _____ ; neither side was willing to compromise.

A. solution
B. impasse
C. conclusion
D. end
E. deadlock
F. resolution

7. The teacher was so abstracted that she gave a _____ evaluation of what was really an interesting solution to the problem she had set.

A. philosophical
B. cursory
C. detailed
D. considered
E. perfunctory
F. tangential

8. _____ behavior never has the effect its practitioners hope for; the attempt to hide only draws attention to what is hidden.

A. Misogynistic
B. Puritanical
C. Covert
D. Miserly
E. Prudish
F. Camouflaging

Concentration Task

Now you will complete a concentration task. This task is designed to test your ability to maintain focus and pay attention to details. In the block of text below, cross off every instance of the letter "e" as quickly and accurately as you can. Make sure you understand the instructions before you begin.

the trends in the study group. The sixth protein studied, α1-AT, occupied a special place. The direction of individual changes in the concentration curves for α1-AT on days 2 to 7 of immersion allowed us to distinguish three types of responses to immersion.

Inferences requiring such combinatorial analysis are unlikely to be drawn from currently designed experimental studies or pure theoretical treatment of mass transfer and binding reaction in the nervous system. The results of optimization for light neurofilament subunit (Jung and Shea 1999) are presented in Fig. 2(a) and Table 2. Figure 2 demonstrates that the developed inverse modeling strategy can be successfully used to identify reaction-diffusion-advection parameters of motormediated axonal transport in nervous system.

In this subject, the baseline concentration of α1-AT on day 7 of immersion and after the return to the normal state was almost twice as low as the minimum value of the normal range (Fig. 3); the exposure to immersion was accompanied by a 79% increase in the protein concentration, which in this case only reached the bottom reference range. Thus, this subject was distinguished by an extremely low baseline content of α1-AT and a drastic change in the rate of its synthesis in response to immersion.

Concentration Task – Part II

Next is the second part of the concentration task. Below is another block of text. The task is similar, but with added rules. As quickly and accurately as you can, cross off every instance of the letter "e" <u>EXCEPT</u> when next to another vowel or two letters away from another vowel. For instance, you would cross off the "e" in the word "kettle" but not in "pea" or "level". Make sure you understand the instructions before you begin.

time that produce the most sensitive data (Sadegh Zadeh 2009). To perform the parameter analysis, columns of the last Jacobian matrix in the optimization algorithm were used as the absolute sensitivities of the state variable(s) with respect to the changes in parameters. To compare responsiveness of the state variable(s) to different parameters, relative rather than absolute sensitivity was used. The motor protein myosin II produces force and shortening in muscle during cyclical ATP-driven interactions of its globular portion (the myosin head) with the actin filament. In each sarcomere, the structural unit of striated tendon, myosin II molecules polymerize in two bipolar arrays of motors that, following actin attachment, undergo a conformational change (the working stroke, d) that pulls the actin filament, originating from the Z line at the extremity, toward the centre.

The relative sensitivities were calculated by (equation), where U is the state variable and u is its mean. The magnitudes, rather than the sign, of the absolute and relative sensitivities are of special interest. The best index of a model or system with regard to alterations in parameters is the Euclidean norm of the columns of the normalized Jacobian matrix at the solution. The array arrangement gives myosin II motors the property of generating steady force and shortening by the combination of single motor properties and cooperative mechanisms that still have to be clarified. The ATPase activity of myosin II has been characterized by biochemical studies in solution (Lymn & Taylor, 1971): the energy liberation by the acto-myosin complex is mainly associated with release of the ATP hydrolysis products, phosphate and ADP.

The relative responsiveness of system (1) as it pertains to the changes in parameters were calculated, analyzed, and plotted across time-space scales in Fig. 3. Note that these figures represent profiles in the anterograde direction. In plotting these graphs, the Savitzky–Golay

smoothing filter (1964), which preserve the main features of the distribution, was selected over other adjacent averaging techniques such as moving average and locally weighted scatter plot smoothing (both linear and quadratic fits) techniques. In the absence of ATP, a condition that in cells occurs only after death and is responsible for rigor, all the nucleotide-free myosin motors are strongly bound to actin. Mechanics and energetics of the motor proteins of muscle can be described only in situ, where the contractile proteins act in the preserved filament lattice.

Figure 3(a) indicates that the sensitivity of the model with respect to the alterations in the diffusion coefficient is high at the vicinity of the injection location at the beginning of the experiment. As the investigation proceeds, it rapidly decreases for all times and all distances from the location, presumably as concentration gradients are reduced. As the load is reduced below the isometric force (T0), the tendon shortens at a speed that is higher at lower load (Hill hyperbolic force–velocity relation; Hill, 1938), while the acto-myosin interaction increases (Huxley, 1957), as shown by the increase in both the rate of energy liberation (Fenn, 1924) and the ATPase rate (Kushmerick & Davies, 1969). The motor function in situ can be studied with the best temporal and spatial resolution by applying sarcomere level methods to single fibres isolated from frog muscle. This may indicate that diffusion decreases in the concentration of $\alpha 1$-AT and can be observed even against the background of significant intensification of its synthesis.

Nevertheless, the estimates extracted from our theory are consistent with our knowledge of the transport of individual neurofilament subunits, obtained from subsequent literature, confirming the value of our approach to test or generate hypotheses regarding mechanisms of motility. Consistent with the experimental protocol, transport is primarily forward, with the estimated anterograde velocity comparable to the 0.5–2 μm/sec velocities typically reported for kinesin. The results of this study indicate the existence of oppositely directed responses of the $\alpha 1$-AT level in blood during immersion, which made the changes in the study group in this period insignificant. The identified cases of reduction in the $\alpha 1$-AT material, however, do not unambiguously testify to the suppression of its synthesis and secretion into the bloodstream.

Card Puzzle Task Instructions

For this part of the study, you will be playing the card game Solitaire on the internet. It should already be opened for you in a web browser.

If you are unsure how to play the game, click on Info at the top left of the web page, and then click How to Play.

Feel free to play as leisurely as you desire. This is not a race, but you are welcome to play quickly if that is more fun for you.

If you finish a game (or realize you cannot finish it), please refresh the page and start a new game. You will have to answer a few questions about your experience after the experimenter returns. Continue playing the game until then.

Concentration Task – Follow-up Questions

How much did you have to concentrate on the task?

                        1   2   3   4   5   6   7

          not at all   a great deal

How mentally exhausting did you find the task?

                        1   2   3   4   5   6   7

          not at all   extremely

GRE Test Follow-up Questions

How do you feel about your score on the GRE test?

                        1   2   3   4   5   6   7

          very disappointed   very satisfied

Do you plan to take, or have you already taken, the GRE?

          Yes, I plan to   Yes, I've taken it   No   Not familiar with it

Solitaire Follow-up Questions

How many games did you win? _____

How much did you have to concentrate on the task?

        1   2   3   4   5   6   7

    not at all   a great deal

How mentally exhausting did you find the task?

        1   2   3   4   5   6   7

      not at all   extremely

GRE Test Follow-up Questions

How do you feel about your score on the GRE test?

        1   2   3   4   5   6   7

    very disappointed   very satisfied

Do you plan to take, or have you already taken, the GRE?

    Yes, I plan to   Yes, I've taken it   No   Not familiar with it

Recall your score on the GRE test that you took earlier and keep that in mind as you answer this survey. Please rate yourself on each of the following items based on the way you feel right now. For each statement, choose the number that best corresponds to your level of agreement AT THIS MOMENT.

1. I'm trying to be kind and reassuring to myself.

	1	2	3	4	5	
strongly disagree						strongly agree

2. I'm being understanding towards myself.

	1	2	3	4	5	
strongly disagree						strongly agree

3. I'm trying to take a supportive attitude towards myself.

	1	2	3	4	5	
strongly disagree						strongly agree

4. It's okay to make mistakes.

	1	2	3	4	5	
strongly disagree						strongly agree

5. I'm being hard on myself.

	1	2	3	4	5	
strongly disagree						strongly agree

6. I'm being intolerant towards those aspects of my personality that I don't like.

	1	2	3	4	5	
strongly disagree						strongly agree

7. I feel stupid.

	1	2	3	4	5

strongly disagree   strongly agree

8. A lot of people have negative experiences, I'm not the only one.

              1   2   3   4   5

strongly disagree   strongly agree

9. Everyone makes mistakes sometimes.

              1   2   3   4   5

strongly disagree   strongly agree

10. Everyone feels bad about themselves sometimes.

              1   2   3   4   5

strongly disagree   strongly agree

11. I feel like other people have it easier than me.

              1   2   3   4   5

strongly disagree   strongly agree

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

              1   2   3   4   5

strongly disagree   strongly agree

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

              1   2   3   4   5

strongly disagree   strongly agree

14. I'm taking a balanced perspective on the situation.

              1   2   3   4   5

strongly disagree   strongly agree

15. I keep thinking about what happened.

<div style="text-align: center">

1   2   3   4   5

</div>

strongly disagree   strongly agree

16. I feel consumed by feelings of inadequacy.

<div style="text-align: center">

1   2   3   4   5

</div>

strongly disagree   strongly agree

In order to prevent negative feelings at the end of the study for those who may not have earned a

good score on the GRE test, we would like you to take a kind and understanding perspective

toward your score. Using the space provided below, please write a compassionate response to

yourself (as if you are addressing yourself) regarding the test. For example, you could write

things you could do, or different ways of thinking about it. In other words, try to take a caring

and concerned approach, rather than a critical one. Use as much of this paper as necessary to

write your response.

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Curriculum Vita

Name: Mary Kate Jones

███████████████████████████

Program of Study: Experimental Psychology

Degree and Date to be Conferred: Master of Arts, 2014

Secondary Education:

2012-2014 at Towson University, Towson, MD (expected graduation in Dec. 2014)
Master's in Experimental Psychology; GPA: 4.00

2008-2012 at Towson University, Towson, MD
Bachelor's in Psychology, Minor in Spanish; GPA: 3.93

Conference Presentations:

2013: Towson Univ. Undergrad. & Grad. Student Research & Performance Expo
     Precursors of Self-Compassion: Life Events and Relationships
2012: Colonial Academic Alliance
     Rehearsing Deception: A Way to Hide Your Flaming Pants?

Research Experience:

Master's Degree in Experimental Psychology:
training that expanded on the undergraduate honors thesis, including more advanced data analysis (e.g., multivariate methods, cluster analysis, survival, neural networks, data mining) and further first-hand experience conducting independent research

- First year project: examined factors contributing to the development of self-compassion
  - developed new surveys and gathered preexisting surveys to address hypotheses
  - utilized Survey Monkey to gather data from a larger population
  - analyzed data with SPSS, using a multiple regression analysis

- Master's thesis: self-compassion and self-control
  - synthesized interdisciplinary research in a clear, informative literature review, APA-style
  - succinct and clear written and oral description of methodology, results, and conclusions

- ▫ defended my research proposal to a thesis committee, addressing their concerns
- ▫ piloted initial design to identify and overcome challenges, problem-solving
- ▫ cleaned data, analyzed using hierarchical regression

Undergraduate Honors Thesis Program

training in the research process, including ethical considerations, proposing hypotheses, designing and conducting appropriate methodology, cleaning data, analyzing data with SPSS, organizing literature and findings in a clear, concise APA-style paper, and presenting the research to a general audience
- ⅄ classwork regarding a variety of research designs and analyses
    - ▫ e.g., t-test, ANOVA, regression, discriminant analysis, Chi-square
- ⅄ first-hand experience with the entire process, designing an independent thesis project
    - ▫ examined influence of statement rehearsal and veracity on lie detection
    - ▫ interacted ethically with participants to ensure comfort with procedures
    - ▫ gathered information to streamline my methods
    - ▫ coordinated, trained, and supervised several research assistants
    - ▫ cleaned data, analyzed by hand computation using a Chi-square analysis
    - ▫ communicated findings to a mixed audience of academics and laypeople

Teaching Experience:

Lectures – took the initiative to gain firsthand experience teaching; with classes of 30-80 students; use of speech skills, PowerPoint, demonstrations, and creative teaching methods
2013 - Memory and Study Skills; Intelligence; Probability
2012 - Sexuality and Aging

Teaching Assistantship – 2012-2013
Psychology of Aging, with Dr. Kim Shifren
Developmental Psychology, with Dr. Ellyn Sheffield
Provided support to the professor
- ⅄ test development, editing, and grading
- ⅄ planned and conducted study groups, clarified confusing topics, taught one-on-one
- ⅄ organized and hosted review games, developed study guides
- ⅄ organized lecture materials, presented information in an engaging manner to students
- ⅄ gained valuable skills, such as communication, organization, problem-solving, efficiency