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A Computer-based Study of Mnemic Neglect

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A Computer-based Study of Mnemic Neglect

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Abstract

Mnemic neglect may be a form of attentional control which protects us from threatening criticism about our personalities. According to the model, positive feedback is recalled more easily than negative feedback when it is about the self. However, this is not the case when feedback is about other people. Mnemic neglect occurs even when people are told to simply imagine that the feedback is real. The reason for this is assumed to be that people spend relatively little time attending to or thinking about self-threatening feedback. The current study replicated the mnemic neglect effect but also directly measured how long people spent focusing on different kinds of feedback. A computer recorded the time spent reading behaviors and also administered mood measures to measure participants' affect; however, neither of the measures yielded results that shed light on what mediates mnemic neglect.

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Acknowledgements

I would like to thank Professor Newman for his advising on this project. I would not have been able to complete my study without his help. Thanks to you, I have made a valuable contribution to social psychology research.

I would also like to thank Dr. McIntyre for her feedback and comments. My study is certainly better than it would have been without your help, and thanks to you it is 100% APA compliant!

Advice to Future Honors Students

The best advice I can give to someone pursuing a capstone project in psychology is to collect all of your data early. I managed to finish running all of my subjects within an eight week period. If it is possible to have more than one participant complete the study at the same time, take advantage of it. It is very time consuming to run a single subject at a time like I did.

If you have trouble coming up with a feasible idea for a capstone project, try going to a psychology research presentation. At the beginning and end of each semester there is usually a day where professors present their research and look for undergraduate students to participate. Besides coming up with good ideas, you might find a professor and/or advisor to work with on an interesting project.

Finally, don't expect to get the project done in January or February so you can have the rest of the semester to work on a full course load. It is more realistic to spend the entire semester polishing your project so you can feel like it is really finished. Besides, as a senior, your last semester will hopefully be filled with time to hang out with friends.

Running head: COMPUTER-BASED STUDY OF MNEMIC NEGLECT

A Computer-based Study of Mnemic Neglect

On a daily basis, people are confronted with criticisms, praise, and mixed reviews of their behaviors in the work place, at home, and in the midst of their busy lives. All individuals tend to believe they have essential, and typically positive, characteristics that make themselves unique (Baumeister, 1998; Dunning, 2005; Higgins, 1989). To maintain their self-concepts, therefore, people must have a method of denying or modulating negative and mixed feedback that threatens these essential characteristics. The methods used to avoid threats to one's self-concept are similar to defense mechanisms. They can be as simple as denying one's faults, comparing the currently accomplished self to memories of one's less capable past, or even restructuring memories of a threatening event.

Another way of preserving one's self-concept is through attentional control (Baumeister, Heatherton, & Tice, 1994; Baumeister & Newman, 1994). By choosing what input one deems important, an individual may ignore threatening self-knowledge. This idea is what underlies the *mnemic neglect* model created by Green and Sedikides (2004). According to the model, self-referent feedback, such as behaviors an individual would potentially perform, is processed through a two-stage sequence. The first stage consists of determining whether feedback is threatening to the self.

If the behavior is considered threatening, processing is stopped as quickly as possible. If the behavior is considered non-threatening, the behavior processing proceeds to stage two in which the behavior is further compared to similar and relevant self-knowledge (Green & Sedikides, 2004). Therefore, non-threatening behaviors, which reflect positively on one's self-concept, are processed deeply while threatening behaviors, which reflect negatively on one's self-concept, are processed shallowly. This results in a significant difference in recall of positive versus negative self-referent behaviors.

Studying Mnemic Neglect

The setup for past mnemic neglect studies involves presenting participants with a list of behaviors, half of which are positive (e.g., "would follow through on a promise made to friends"), and half of which are negative (e.g., "would make fun of others because of their looks") (Green & Sedikides, 2004). Half of the participants are told to imagine that people who know them well described them with a set of behaviors they will read. Since the mnemic neglect model should only affect self-referent behaviors, the other half of the participants are asked to imagine that the behaviors describe someone named "Chris." Participants read the list of behaviors at their own pace and, after a distracter period, are unexpectedly asked to recall the behaviors.

Most mnemic neglect studies use *hypothetical* feedback implying positive and negative traits (e.g. kind/unkind). Since participants are asked

to simply imagine that they would engage in the behaviors, results may be different from real, everyday self-referent feedback. However, in one study, participants were led to believe that they were taking a personality test and then were given one-sentence behaviors they would likely perform (Green & Sedikides, 2004). The participants who received this false feedback still exhibited mnemic neglect. Therefore, simply imagining threatening self-referent behaviors seems to be sufficient to evoke the mnemic neglect defense mechanism.

The Role of Threat

An alternative explanation for the cause of the mnemic neglect phenomenon could be feedback inconsistency or expectancies for the self. For example, if a group of participants perceive themselves as kind and they recall unkind behaviors poorly, is it the inconsistency between their self-perceived kindness and the unkind behaviors or is it the stigma of unkindness in our society that causes shallow processing? Research by Green and Sedikides revealed that even individuals who rated themselves as untrustworthy and unkind recalled negative behaviors poorly compared to positive behaviors (2004). That is, both untrustworthy and trustworthy participants recalled untrustworthy behaviors poorly as did unkind and kind participants. These findings suggest that, in general, negative behaviors are threatening. Perhaps this is because the types of negative traits tested in past mnemic neglect studies are universally considered undesirable.

Lastly, since the mnemonic neglect model breaks feedback processing into a two-step serial process, it is likely that imposing a time constraint will affect recall. When Sedikides and Green (2006) limited the amount of time allowed for reading behaviors to two seconds, participants neglected all behaviors instead of just self-threatening ones. When they repeated the same experiment with more time, giving participants eight seconds to read each behavior, only self-threatening stimuli were neglected. This study yields further support for the two-stage model of mnemonic neglect.

The mnemonic neglect model provides a plausible account of how feedback about the self is processed. Sedikides and Green identified one final factor that helped explain whether feedback was considered threatening. It was found that central traits, those considered “highly certain, self-descriptive, and important” had a much greater effect on an individual’s recall when they were negative compared to negative peripheral traits (Green & Sedikides, 2004, p. 71). It is believed that negative central traits (e.g., unkind, untrustworthy) are perceived as more threatening to the self than peripheral traits (immodest, complaining) and are processed accordingly by the model. Likewise, it can be presumed that positive central traits are highly consistent with self-knowledge and present little or no threat to one’s self-concept.

Study Goals and Hypotheses

Past studies on the mnemic neglect phenomenon have provided general support for the model, and it is expected that the current study will replicate past research. Therefore, we hypothesize that, similar to previous studies, the valence of the behaviors will have a significant impact on recall. Specifically, we believe that individuals in the other-referent condition (i.e., the condition referring to “Chris”) will recall approximately the same number of positive and negative behaviors, and individuals in the self-referent condition will recall more positive than negative behaviors.

Two affective measures, the Positive Affect Negative Affect Schedule (PANAS) task and the Word-Fragment Completion task, were incorporated into this study as well (Rusting & Larsen, 1998; Watson & Clark, 1988). These measures served as a distracter task but were primarily included to determine whether there was an impact on the mood of participants in the self or other-referent conditions after reading the feedback. It is expected that participants who are led to imagine that the feedback is about themselves, which may present a risk to their self-concepts because half is negative, will rate their mood as lower than participants who are led to imagine that the feedback is about someone named “Chris.”

The most important difference between past research and the current study is the fact that we utilized a computer to record data

individually. The use of a computer allowed for the recording of reaction time data and enhanced the ease of data collection. Earlier studies of mnemonic neglect have found indirect evidence that the model is a time-dependent, serial process but no direct evidence (Sedikides & Green, 2006). Although individuals in this current study did not have a time constraint while reading behaviors, it was expected that they would take less time to shallowly process threatening feedback. Therefore, it is hypothesized that for both central and peripheral feedback, but especially central feedback, participants will spend less time reading threatening feedback and behaviors.

Method

Overview

Participants were presented with 32 behaviors (half positive, half negative) individually on a computer screen and asked to imagine that either they engaged in the behaviors or that someone else did. Following the behaviors, they completed two mood measures, the Word-Fragment Completion task (see Appendix B) and the PANAS (see Appendix C) (Watson & Clark, 1988; Rusting & Larsen, 1998). These measures also served as distractor tasks. Next, participants were unexpectedly asked to recall the behaviors read at the beginning of the experiment. Finally, participants provided demographic information.

Participants

Ninety-seven undergraduate students from Syracuse University participated in return for course credit. Reaction time data for one student were lost, and one student was not included in the results because she did not follow the instructions. Thus, the final sample included 95 undergraduate students.

Materials

Participants were given a booklet consisting of two pages with lines for recalling behaviors, and one page for demographic information. Students' university year, ethnicity, age, college major, and gender were recorded as well as whether or not English was their primary language.

The majority of the study was completed on a computer using the Media Lab and DirectRT software packages. Each participant read 32 behaviors presented individually on the screen. DirectRT recorded the elapsed time between behavior presentation and the participant's response to provide the time spent reading in milliseconds. Half of the participants read behaviors about themselves (e.g. "You would make fun of others because of their looks") while the other half read behaviors that applied to another person (e.g. "Chris would keep secrets when asked to"). This constituted the Referent condition. Half of the behaviors were positive and half were negative. This comprised the Behavior Valence factor (for a complete list of behaviors, see Appendix A). Half of the

behaviors corresponded to central traits (e.g., untrustworthy/trustworthy, unkind/kind) and half corresponded to peripheral traits (e.g., immodest/modest, complaining/uncomplaining). This constituted the Centrality factor.

Each trait dimension (e.g., unkind/kind, etc.) pertained to 8 behaviors. There were four trait dimensions with half of them central and half peripheral. Behaviors were presented in four different orders by trait which alternated in each trial. The referent condition was alternated in each trial as well (e.g. Chris/You/Chris/You/etc.).

The mood measures included in this study were the PANAS and the Word-Fragment Completion Task. The PANAS consists of 20 descriptive words, such as “irritable.” Participants rate the extent to which they feel like each word on a five point likert scale. For the Word-Fragment Completion task, participants type what they believe each complete word should be, and each word is missing either one or two letters. Half of the fragments have one or more possible positive completed words, half have one or more possible negative completed words, and all fragments have at least one possible neutral completed word. For example, “go_d” could be either “gold,” which is neutral, or “good,” which is positive. Finally, the original word-fragment completion task was split into two halves to limit the time for the distracter period. Each half of the word-fragment completion task was alternated in each trial.

Procedure

Participants were run individually. Each participant was told to read the instructions, read the behaviors at their own pace, use the keyboard to proceed from behavior to behavior, and to stop when the program told them to stop. The instructions informed the participants that they would be presented with a personality description made up of a list of a few dozen behaviors. In the self condition, they were told to imagine that “this is a description of *you*. Think of the description as *real*.” In the Chris/other condition, they were similarly asked to imagine that the description applied to someone named “Chris.”

After reading the behaviors, participants completed two mood measures which also acted as distracter tasks between the behaviors and recall period. The mood measures were the PANAS and Word-Fragment Completion Task. They were intended to measure participants’ mood after reading both positive and negative feedback/behaviors.

After completing the mood measures, participants were presented with a screen which said “STOP and wait for the experimenter to tell you what to do next.” Participants were unexpectedly asked to recall as many of the behaviors as possible. After two-and-a-half minutes, the experimenter came in and told the participant to stop and draw a line under the last behavior recalled. After drawing the line, the participant was allowed to continue recalling behaviors for a second two-and-a-half minute period. In past studies, it was found that analysis of the data from the first

half of the recall period resulted in much stronger differences in recall (Silver, Nibert, Newman, & Winer, 2006). In other words, the mnemic neglect phenomenon was much stronger and more noticeable during the first two-and-a-half minutes of recall. This is probably because the behaviors recalled during this period were more cognitively accessible. Recall during the second half of the period may reflect the different strategies participants use to retrieve behaviors from long-term memory or to create pseudo-behaviors (participant-invented behaviors or behaviors very similar to behaviors they read).

Participants then provided demographic information. Finally, participants were debriefed and told about the purpose of the current study.

Design

The design was a 2 (Referent: self, Chris) x 2 (Behavior Valence: positive behaviors, negative behaviors) x 2 (Centrality: central behaviors, peripheral behaviors) factorial, in which the Referent condition was between subjects and the Behavior Valence and Centrality factors were within-subjects.

Results

Recall

The researcher and a research assistant coded a subset (n=20) of the participants' recall using a gist criterion for each sentence. The level of agreement for the number of positive and negative behaviors recalled by

participants was deemed sufficient (both r 's > .9). The researcher then coded the rest of the participants' recall data which were used for analysis.

An initial 2 (Referent: self, Chris) x 2 (Behavior Valence) x 2 (Centrality) ANOVA using all of the recall data revealed the following significant effects: a main effect of Behavior Valence, $F(1, 95) = 16.42$, $p < .001$, a main effect of Centrality, $F(1, 95) = 131.82$, $p < .001$, and a main effect of Referent, $F(1, 95) = 9.83$, $p < .01$.

The Behavior Valence main effect was consistent with the results of past studies (see Figure 1 for means). Participants remembered significantly more positive ($M = 4.62$) than negative behaviors ($M = 3.72$). Likewise, the Centrality main effect was expected based on Green and Sedikides' past results. Central behaviors, which are perceived as more vivid, were remembered significantly more ($M = 5.78$) than peripheral behaviors ($M = 2.55$). The main effect of Referent was expected as well. Recall of behaviors in the Chris condition is greater ($M = 9.31$) than recall in the self condition ($M = 7.39$). This is probably due to the mnemonic neglect effect which would cause half of the behaviors, which are negative and threatening, to be remembered more poorly by participants in the self condition. Despite the Behavior Valence and Referent main effects, there was no two-way interaction between the two factors for the full recall period.

A second ANOVA, limiting the recall period to the first half of the total recall time, revealed the same main effects, but also the expected

two-way interaction between Behavior Valence and Referent, $F(1, 95) = 6.54$, $p < .05$.

The expected two-way interaction between Behavior Valence and Referent reflects the finding that participants in the Chris condition were able to recall a similar number of positive and negative behaviors. In contrast, participants in the self condition recalled more positive than negative feedback. This is especially true when looking at the central traits (see Figure 2).

Based on past studies, we expected to find a three-way interaction between Behavior Valence, Centrality, and Referent. As expected, the mnemonic neglect effect is stronger for central behaviors, especially when the analysis is limited to the first half of the recall period rather than the total recall period, but the three-way interaction is not significant.

Mood

The PANAS and Word-Fragment Completion Task are mood measures included in this study primarily to find whether participants' mood was affected by reading negative behaviors. Analyses of both measures revealed no significant differences between the Chris and self condition for the affect of participants. The pattern of means for the PANAS was interesting, although the mean differences did not even approach significance. It appeared that participants in the self condition rated their mood as being slightly more positive ($M = 2.81$) compared to those in the Chris condition ($M = 2.63$) and also as being slightly more

negative ($M = 1.59$) compared to those in the Chris condition ($M = 1.54$). It was expected that participants in the self condition would rate their mood more negatively using the negative descriptive words in the PANAS, but not that participants in the self condition would rate their mood as more positive. In other words, it appeared that for participants in the self condition, there was a slight *overall* increase in affect compared to those in the Chris condition.

Reaction Time

Lastly, the computer was able to record in milliseconds the time each participant spent reading individual behaviors. A repeated measures ANOVA revealed main effects for Behavior Valence, $F(1, 95) = 21.82$, $p < .001$, Centrality, $F(1, 95) = 6.27$, $p < .05$, and a two-way interaction between Behavior Valence and Centrality, $F(1, 95) = 9.88$, $p < .01$. The expected two-way interaction between Behavior Valence and Referent and the three-way interaction between Behavior Valence, Centrality, and Referent were not significant.

The main effect of Behavior Valence reflected longer times spent reading positive behaviors ($M = 4662$) compared to negative behaviors ($M = 4330$). The main effect of Centrality, which was unexpected, indicated longer times spent reading peripheral behaviors ($M = 4673$) compared to central behaviors ($M = 4319$). Both main effects are qualified by the two way interaction between Behavior Valence and Centrality. The interaction was mainly caused by a much briefer mean time spent reading central,

negative behaviors (see figure 3 for table of means). The three-way interaction between Behavior Valence, Centrality, and Referent was not significant, but the fastest mean reading time was found in central, negative behaviors in the self condition.

Discussion

The mnemic neglect effect is a phenomenon that may help individuals protect their self-esteem from threatening feedback on a daily basis. According to the model, which is supported by past research (Green & Sedikides, 2004; Sedikides & Green, 2006; Silver, Nibert, Newman, & Winer, 2006), negative feedback, such as being told “you are an unkind person,” is processed shallowly which results in the feedback being recalled less easily. Unthreatening and positive feedback, on the other hand, is processed deeply and can be recalled with little trouble. The mnemic neglect effect does not seem to affect an individual, however, if the feedback is about other people’s behaviors and personalities.

This study was intended to replicate the mnemic neglect effect. Therefore, we predicted that participants who were led to believe the behaviors were related to themselves would remember more positive than negative behaviors when unexpectedly asked to recall the feedback. Participants in the “other” condition were predicted to recall about the same number of positive and negative behaviors. This trend in recall was expected to be even stronger for central behaviors, considered more vivid

and important, resulting in more mnemic neglect of threatening feedback. Mood measures were included to ascertain whether reading threatening feedback would lead to more negative affect. Finally, since participants completed the experiment on a computer, we also intended to determine whether participants would read negative self-relevant feedback for a shorter time period.

Limiting the analyses to the first half of the recall period uncovered a two-way interaction between Behavior Valence and Referent (Silver, Nibert, Newman, & Winer, 2006). This means that participants in the Chris condition recalled about the same number of behaviors while those in the self condition recalled more positive than negative behaviors. The two-way interaction replicates past research and supports the mnemic neglect effect as a real phenomenon. The interaction was only significant for the first half of the recall period. This should not weaken the evidence for the mnemic neglect effect, however, because it is believed that recall for the second half of the recall period may simply reflect strategies participants use to remember behaviors weakly encoded in their working memory. The expected three-way interaction between Behavior Valence, Centrality, and Referent was not significant, but it was stronger when analyses were limited to the first recall period.

The PANAS and Word-Fragment Completion task were included as both a distracter task between reading behaviors and recall, and to measure participants' mood after reading threatening feedback. It should

follow from the mnemonic neglect effect that feedback related to one's own behaviors and personality is more salient and important to an individual. One's mood may be affected the same way. We predicted that participants in the self condition would have significantly more negative affect after reading the feedback, much of which was threatening, compared to those in the other condition.

Analyses of the mood measures revealed no significant differences between the self and other condition. However, there was an interesting trend in the PANAS data. Participants in the self condition rated their mood as slightly more positive for positive words on the PANAS and as slightly more negative for negative words compared to those in the other condition. Perhaps the mood of those in the self condition was more affected overall by reading self-relevant feedback. Since participants in the self condition are presumably processing behaviors more deeply, and comparing the feedback to their self-identity, they may be accessing other self-relevant memories. Because the behaviors used in this study were very general, it is possible that some of the behaviors participants read were compared to their autobiographical memory. Autobiographical memory is considered a vital part of one's identity and it can certainly affect emotions when memories are recalled (Matlin, 2005).

Alternatively, the PANAS may not be ideal in a laboratory setting. According to Barrett and Russell, "the number of dimensions required to describe affect is two" (1999). Their two-dimensional structure of affect

contains one dimension related to a continuum of valence, ranging from unpleasant to pleasant, and one dimension related to a continuum of arousal, ranging from activation to deactivation. The PANAS measures affect using one dimension, positive vs. negative, and all of its items would correspond to the highly aroused pole of Barrett and Russell's structure of affect. In other words, the PANAS contains descriptors like "excited" or "distressed" but does not contain words corresponding to low arousal like "depressed" or "contented." A laboratory setting, in which participants are simply told to imagine threatening feedback as real, is not an ideal place for testing high-activation affect. A mood measure that measures both dimensions of affect would be better for a future study like this one. Furthermore, the difference between the self and other conditions was very small.

Finally, the DirectRT software was used to record the time participants spent reading each individual behavior. It was predicted that participants in the self condition would spend the least time reading negative behaviors- especially central ones. Analyses revealed that participants spent less time reading negative behaviors, and they spent less time reading central behaviors. There was also a two-way interaction between Behavior Valence and Centrality. This was caused by an especially low mean time spent reading negative central behaviors. The expected three-way interaction between Behavior Valence, Centrality, and

Referent was not significant, but the mean time spent reading was fastest for central, negative, self-relevant behaviors.

Since negative behaviors are more threatening, and central behaviors are considered more important, it is no surprise that less time was spent reading these behaviors. The two-way interaction also reflects the fact that negative, central behaviors are the most threatening in the self condition leading to a shorter time spent reading. However, there were no significant differences in the time spent reading between those in the self and other condition. One explanation is that participants must read most of the behavior before determining whether it is threatening. The depth of encoding is determined only after one determines if feedback is threatening. Therefore, there would only be a small difference in time between shallowly processing the behavior or deeply processing the behavior before moving on to the next. An alternative explanation is that participants may have felt pressured to read all of the behaviors quickly. Even though they were given instructions to read at their own pace, participants understood they were expected to finish reading in a reasonable time period. If there was no pressure to finish quickly, participants may have dwelled longer on positive feedback while spending only a short time on threatening feedback.

Although the expected results of the reaction time data and mood measures did not exactly support our hypotheses, there were unexpected findings which can be addressed in future research. Most importantly, the

mnemonic neglect effect was replicated for the recall of threatening feedback. Mnemonic neglect is a plausible method for protecting our self-concept.

References

- Barrett, L. F., & Russell, J. A. (1999). The structure of current affect: controversies and emerging consensus. *Current Directions in Psychological Science*, 8(1), 10-14.
- Baumeister, R. F. (1998). The self. In D.T. Gilbert, S. T. Fiske., & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 680-740). Boston: McGraw-Hill.
- Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1994). *Losing control: How and why people fail at self-regulation*. San Diego: Academic Press.
- Baumeister, R. F., & Newman, L. S. (1994). Self-regulation of cognitive inference and decision processes. *Personality and Social Psychology Bulletin*, 20, 3-19.
- Dunning, D. (2005). *Self-insight: Roadblocks and detours on the path to knowing thyself*. New York: Psychology Press.
- Green, J. D., & Sedikides, C. (2004). Retrieval selectivity in the processing of self-referent information: Testing the boundaries of self-protection. *Self and Identity*, 3, 69-80.
- Higgins, E. T. (1989). Self-discrepancy theory: What patterns of self-beliefs cause people to suffer? In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 22, pp. 93-136). San Diego: Academic Press.
- Matlin, M. W. (2005). *Cognition*. Hoboken: John Wiley & Sons, Inc.
- Rusting, C. L., & Larsen, R. J. (1998). Personality and cognitive processing of affective information. *Personality and Social Psychology Bulletin*, 24(2), 200-213.
- Sedikides, C., & Green, J. D. (2006). The mnemic neglect model: Experimental demonstrations of inhibitory repression in normal adults. *Behavioral and Brain Sciences*, 29(5), 532-533.
- Silver, A., Nibert, J. A., Newman, L. S., & Winer, E. S. (2006). *Threat and mnemic neglect: Recall biases of repressors*. Poster presented at the 2006 meeting of the American Psychological Society, New York, NY.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scale. *Journal of Personality and Social Psychology*, *54*, 1063-1070.

Appendix A

Untrustworthy and Trustworthy Behaviors (Central)

X would borrow other people's belongings without their knowledge. (Untrustworthy)

X would be unfaithful when in an intimate relationship. (Untrustworthy)

X would often lie to X's parents. (Untrustworthy)

An employer would not rely on X to have an important project completed by the deadline. (Untrustworthy)

X would keep secrets when asked to. (Trustworthy)

X would follow through on a promise made to friends. (Trustworthy)

A teacher would leave X alone in a room while taking a test and not be afraid that X would cheat. (Trustworthy)

People would be willing to tell X embarrassing things about themselves in confidence. (Trustworthy)

Unkind and Kind Behaviors (Central)

X would make fun of others because of their looks. (Unkind)

X would purposely hurt someone to benefit X. (Unkind)

X would refuse to lend class notes to a friend who was ill. (Unkind)

X would make an obscene gesture to an old lady. (Unkind)

X would offer to care for a neighbor's child when the baby-sitter couldn't come. (Kind)

X would help people by opening a door if their hands were full. (Kind)

X would help a handicapped neighbor paint his or her house. (Kind)

X would volunteer time to work as a big brother or big sister to a child in need. (Kind)

Immodest and Modest Behaviors (Peripheral)

X would act in a condescending manner to other people. (Immodest)

X would point out others' weaknesses to make X look better. (Immodest)

X would talk more about X than about others. (Immodest)

X would show off in front of others. (Immodest)

X would take the focus off X and redirect it to others. (Modest)

X would let some of X's achievements go by unaccredited. (Modest)

X would give others the credit for a group success. (Modest)

X would never openly brag about X's accomplishments. (Modest)

Complaining and Uncomplaining Behaviors (Peripheral)

X would look for faults even if X's life was going well. (Complaining)

When X would not like to do something, X would constantly mention it.
(Complaining)

X would constantly talk about how much stuff there is to be done.
(Complaining)

X would pick only the bad points to describe the classes X attends.
(Complaining)

X would rarely inform others about physical ailments. (Uncomplaining)

X would overlook the bad points about a roommate. (Uncomplaining)

X would minimize bad experiences when telling about them.
(Uncomplaining)

X would tolerate situations even when not having a good time.
(Uncomplaining)

Appendix B

**Ambiguous Terms Used in the Word-Fragment
Completion Task and Possible Answers**

<i>Ambiguous Term</i>	<i>Neutral Answer</i>	<i>Positive Answer</i>
THRI__	thrift	thrill
CHE__	chess	cheer
PLEA_ED	pleated	pleased
__CITED	recited	excited
E_A_ED	erased	elated
CAL_	calf	calm
GO_D	gold	good
MER_Y	mercy	merry
__PPY	puppy	happy, peppy
JO_	job, jog, jot	joy
DEL_G_TED	delegated	delighted
S_ILING	soiling	smiling
FU_	fur	fun
RELA_ED	related	relaxed
LI_ELY	likely	lively
_LEE	flee	glee
TEN__	tenor	tense
ANG__	angle, angel	anger, angry
MA_	man, may, map, mat	mad
GLO__Y	glossy	gloomy
__PRESSED	repressed	depressed
_URIUS	curious	furious
DIS_US_	discuss	disgust
A__OY	alloy	annoy
FR_T	frat	fret
AF_AI_	affair	afraid
_ORROW	borrow	sorrow
IRRI_ATE	irrigate	irritate
G_I_TY	gritty	guilty
PA_NED	panned	pained
AS__MED	assumed	ashamed
HO_ELESS	homeless	hopeless

Appendix C

PANAS

Positive

Interested
Excited
Strong
Enthusiastic
Proud
Alert
Inspired
Determined
Attentive
Active

Negative

Ashamed
Distressed
Upset
Guilty
Scared
Hostile
Irritable
Afraid
Nervous
Jittery

All items on the PANAS are rated individually on a five-point Likert scale as the extent to which the participant feels like the descriptive word. (1 = very slightly/not at all; 5 = extremely).

Table 1

Recall Means for the Full Recall Period

	Referent	Mean	Std. Deviation	N
Positive,	Chris	3.38	1.482	48
Central	You	2.92	1.239	49
	Total	3.14	1.377	97
Negative,	Chris	3.02	1.732	48
Central	You	2.27	1.151	49
	Total	2.64	1.508	97
Positive,	Chris	1.60	1.125	48
Peripheral	You	1.35	1.182	49
	Total	1.47	1.156	97
Negative,	Chris	1.31	1.206	48
Peripheral	You	.86	.935	49
	Total	1.08	1.096	97

Table 2

Recall Means Limited to the First Half of the Recall Period

	Referent	Mean	Std. Deviation	N
Positive, Central	Chris	2.35	1.139	48
	Self	2.49	1.102	49
	Total	2.42	1.116	97
Negative, Central	Chris	2.31	1.504	48
	Self	1.67	1.049	49
	Total	1.99	1.327	97
Positive, Peripheral	Chris	1.02	.934	48
	Self	.88	.904	49
	Total	.95	.917	97
Negative, Peripheral	Chris	.83	.907	48
	Self	.45	.647	49
	Total	.64	.806	97

Table 3

Reaction Time Means

	Referent	Mean	Std. Deviation	N
Central,	Chris	4868.1060	2782.99517	47
Positive	Self	4330.4801	1333.10614	48
	Total	4596.4634	2179.84950	95
Central,	Chris	4363.1428	2709.24909	47
Negative	Self	3727.3873	1358.31318	48
	Total	4041.9190	2148.61517	95
Peripheral,	Chris	4849.6140	2127.66229	47
Positive	Self	4611.6518	1934.78659	48
	Total	4729.3805	2025.17147	95
Peripheral,	Chris	4839.0617	2416.33454	47
Negative	Self	4402.1809	1569.49350	48
	Total	4618.3219	2033.98529	95

A Summary of Mnemic Neglect

As individuals, we receive feedback about our behaviors on a daily basis. For instance, your boss may complement you for your hard work on a project. Positive feedback like this is considered healthy and makes you feel good. However, being told that your boss does not trust you would probably make you feel bad. Negative feedback like this is a threat to one's self-esteem. Therefore, we have numerous ways of avoiding and tuning out threatening feedback. For example, sometimes we attribute our successes to our personality and talent while simultaneously attributing our failures to outside factors beyond our control. The simplest way of avoiding negative feedback, however, is probably attentional control. If you ignore a threat, you might not remember it and it won't hurt your self-esteem.

Mnemic neglect is a form of attentional control. According to the model, people remember positive feedback more easily than negative feedback. When an individual perceives feedback as threatening, they pay less attention to the information. Therefore, he or she will not remember the feedback as readily. Furthermore, when the feedback is about someone else, people tend to remember positive and negative feedback roughly equally. This provides support for the idea that mnemic neglect selectively protects one's own self-esteem. Mnemic neglect also occurs

even when participants are told to simply *imagine* that the feedback is real.

The setup for this and other mnemonic neglect studies includes presenting a list of positive and negative behaviors for the participant to read. In one condition, the “self” condition, participants are told to imagine that the behaviors were created by a close friend and that they reflect the participant’s personality. In the alternative “other” condition, participants are told to imagine that the behaviors are based on another person named “Chris.” In both conditions, the behaviors are contrived and correspond positively or negatively to one of four traits: untrustworthy/trustworthy, unkind/kind, immodest/modest, or uncomplaining/complaining. For example, the behavior, “X would keep secrets when asked to,” is a trustworthy behavior (with X being either “you” or “Chris”). After reading the behaviors and completing a distracter task, such as naming streets in Syracuse, participants are unexpectedly asked to write down as many of the behaviors as they can in a five minute period.

The current study was completed on a computer and included a few new features that have not been part of past studies. Mood measures were included as the distracter task between reading and recalling the positive and negative behaviors. The measures were intended to determine whether reading threatening feedback affected the mood of the participants. The computer was also able to record the time participants spent reading each behavior. It was hypothesized that participants would

spend the least time reading negative, threatening feedback. Finally, the recall period was also split into two halves, each lasting two-and-a-half minutes, because it had a significant effect in past studies. The first half of the recall period seems to reflect remembering actual behaviors while the second half was more affected by the memory strategies participants used once they could not remember any more behaviors.

After analyzing the data, the mnemic neglect phenomenon was replicated. That is, participants from the “self” condition recalled significantly fewer negative behaviors than positive behaviors while those in the “Chris” condition recalled about the same number. The main effect was even stronger when analyses were limited to the first half of the recall period. Neither the mood measures nor the behavior reading time analyses were significant.

The findings of this study confirm the results of past mnemic neglect experiments. Mnemic neglect seems to be a real form of repression we use to protect ourselves from threatening criticism. Of course, this is not to say we are capable of ignoring and forgetting all of our threatening thoughts and experiences. Mnemic neglect is probably just an initial way of dealing with the numerous threats to our self-esteem we encounter on a daily basis.