ABSTRACT

Christopher Nye, Advisor

Research in unethical decision-making has shown that resisting the temptation to cheat requires self-regulatory resources. There is little research done to examine passive acts of unethical decision-making despite the regular occurrences of passive aggressive, deviant, and unethical work behaviors. The current study extends previous findings by examining unethical behaviors through passivity. Participants were asked to evaluate their own response on a situational-judgment task and report their grade for a monetary incentive. The results are consistent with previous findings such that individuals with depleted self-regulatory resources are more likely to give oneself a higher grade. However, there was no difference in behavior between different forms of cheating (active vs. passive).
To my parents, sister, and the four-legged fur-friend.
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CHAPTER I: INTRODUCTION

Employee theft is a major burden for organizations and managers. It is estimated that up to $400 billion is lost annually due to employee theft (Wells, 1999). Theft often involves an individual taking something that does not belong to him or her. However, some of the biggest acts of theft and unethical conduct result from withholding action. The scandal at Enron is a prime example of a large group of individuals behaving unethically for an extended period of time. The employees received benefits from the unethical behaviors of upper management and failed to speak up or take action. Resisting unethical behavior takes cognitive effort, more specifically, self-control (R. F. Baumeister & Exline, 1999; R.F. Baumeister & Heatherton, 1996; DeWall, Baumeister, Stillman, & Gailliot, 2007). Self-control is broadly defined as the process of restraining one’s impulses and desires. The process of self-control allows one to override a response and/or substitute it for another. Self-control is called upon when one’s impulses and desires are in conflict with the moral standards of society or organizations. To this end, self-control has also been called the “moral muscle” (R. F. Baumeister & Exline, 1999). It is one of the most important factors of criminal and antisocial behaviors (Gottfredson, 1990). More recently, it has also been found to be related to unethical decisions. Previous research has focused on observing overt and explicit acts of unethical behaviors such as cheating or lying. There is less work done to examine passive unethical behaviors. The current study extends the unethical decision-making literature by examining passive unethical behaviors and their relationships to self-control.
Self-Regulation and Ego-Depletion

Self-control draws from a general pool of cognitive resource used in self-regulation. R.F. Baumeister, Bratslavsky, Muraven, and Tice (1998) proposed that self-control describes a mental operation that uses self-regulatory resources. However, self-regulation is a broader term that governs other facets of human behaviors beyond unethical decision-making such as attentional control, motivation, and goal-setting (G. P. Latham & Locke, 1991; Rueda, Rosario, & Rothbart, 2004; Vancouver, 2008). Any behavior that has the need for self-control requires self-regulatory resources. Muraven and Baumeister (2000) described self-regulation as a muscle. Much like a muscle, continuous cognitive effort reduces the amount of resources available for self-regulation. This leads to a state called ego-depletion. Ego-depletion is defined as the state in which the self does not have all the self-regulatory resources it normally does. Previous research in unethical decision-making has shown that individuals in the state of ego-depletion are more likely to engage in various unethical and undesirable behaviors because of their decreased capacity for self-control (Gino, Schweitzer, Mead, & Ariely, 2011; Mead, Baumeister, Gino, Schweitzer, & Ariely, 2009). The lack of self-control inhibits one’s ability to refrain from acting unethically. However, when overcoming the impulse to behave unethically means taking an action, rather than refraining from action, does it also require self-regulatory resources? The current study examines how self-regulatory resources affect passive unethical behaviors differently from active unethical behaviors.

Self-control and unethical behaviors

Individuals with abundant cognitive resources for self-control are more likely to override their inner desires and impulses to engage in unethical behaviors. They resist short-term rewards in order to avoid severe distant consequences or to achieve some long-term goal (Tangney,
Self-control is linked to a number of socially and ethically undesirable behaviors in and out of the workplace. Muraven, Pogarsky, and Shmueli (2006) found that when subjects were given an opportunity to cheat, the group with depleted self-regulatory resources was more likely to cheat than the control group in a subsequent task. Ellis and Christian (2011) examined the effects of sleep deprivation as a proxy for depleted self-regulatory resources on workplace aggression. The authors found that sleep deprivation was associated with increases in hostility and deviant behaviors. Research has also measured self-control as an individual difference trait. Some individuals are better at exerting self-control to override their impulses than others. Trait self-control has been shown to predict a number of negative work-related outcomes. For example, L. L. Latham and Perlow (2006) measured self-control and aggressive work behaviors in a group of 121 employees over a 4 year period. They found that self-control was related to both client-directed and non-client-directed aggressive behaviors. In another study, Bordia, Restubog, and Tang (2008) found trait self-control to be negatively correlated with both interpersonal deviance and organizational deviance such that individuals with high trait self-control were less likely to engage in both types of deviant behavior.

More recently, a number of researchers have experimentally examined the effects of ego-depletion on unethical decision-making, more specifically, cheating for monetary gains. In a study conducted by Mead et al. (2009), participants completed 20 number puzzles and they were told that they would receive $0.25 for each correct solution. The experimenters then placed quarters in an envelope for the participants to take themselves. They found that participants took significantly more quarters in the ego-depletion condition than they did in the control condition even though there was no difference in actual performance. Gino et al. (2011) explored the
effects of ego-depletion on unethical behavior further. These authors also found evidence that unethical behavior increases during ego-depletion. Furthermore, the authors found that ego-depletion reduces one’s moral awareness, and thus increases the propensity to cheat on a subsequent task. Based on these findings, I expect to find similar effects for ego-depletion in the present study.

*Hypothesis 1*. People are more likely to behave unethically in the ego-depletion state than in the control condition.

*Passive Unethicality*

There is a large body of literature demonstrating that self-control relates to various types of aggressive, deviant, and unethical behaviors (L. L. Latham & Perlow, 2006; Marcus & Schuler, 2004; Tangney et al., 2004). However, much of the research focuses on active behaviors. This is especially problematic in organizational research because a large number of undesirable behaviors in the workplace are passive. These include withdrawal behaviors, passive aggressive behaviors, and various other forms of passive deviant, unethical, and counterproductive behaviors. R. A. Baron and Neuman (1996) asked employees to rate the frequencies of various types of aggression in the workplace. They found that passive forms of aggression were more frequently observed and experienced than active forms of aggression. Some examples of passive workplace aggression include failing to return phone calls, failing to deny rumors about a co-worker, and giving someone the “silent treatment.” Drawing from research on systematic decision biases such as the Status Quo Bias and the Omission Bias, I propose that individuals are more likely to engage in passive rather than active unethical behaviors because of the innate bias toward inaction and passivity.
Systematic Decision-Making Biases

Status Quo Bias. A number of systematic decision biases influence our preference for inaction and indecision. The status quo bias is one’s preference for maintaining the current situation. Task switching can be cognitively taxing in itself (Rogers & Monsell, 1995). In addition, switching to a new course of action can lead to possible feelings of regret (Tsiros & Mittal, 2000). People often prefer the current state to avoid accountability and the need to justify their decision (Inman & Zeelenberg, 2002). In the workplace, people’s innate bias toward the status quo can lead to various passive aggressive and unethical behaviors. For example, rather than directly approaching a co-worker to resolve a problem, one may resort to the easier alternative that is ignoring the co-worker, or giving him the silent treatment. The status quo bias may also be one source of explanation for the employees at Enron who continued to receive benefits from others’ unethical behavior without taking proper action.

Omission Bias. A second systematic bias is the omission bias. Omission bias is the tendency to view the consequences of taking an action as more harmful than the consequences of inaction (J. Baron & Ritov, 1994). While inaction is closely associated with maintaining the status quo, Ritov and Baron (1992) demonstrated in a series of experiments that omission bias exists even if the inaction results in a new set of circumstances while action results in maintaining the status quo. Ritov and Baron (1990) showed that individuals are more reluctant to give a vaccine to endangered children when the vaccine has the potential to cause death even when that risk is far less than the risk of dying as a result of not giving the vaccine. One explanation is that individuals evaluate the harm caused by action being more severe than the same harm caused by inaction. In this case, the children’s death caused by giving the vaccine is much more harmful than death caused by not giving the vaccine. One example of omission bias
in an organizational setting is when employees fail to report a problem, such as sexual harassment. Employees believe the consequences of taking an action are worse than leaving the problem alone. This is often true as the complaint process is extremely stressful and can lead to various psychological issues and sometimes even forced resignation (Fitzgerald, 1993). Nonetheless, this bias can hinder the employee’s ability to evaluate the consequences of their inactions rationally and objectively, and nudge the employees to take the route of inaction more often than they should.

The systematic biases toward inaction have also been explored in organizational and management literature (Brooks, 2011). Previous research on this issue has focused primarily on the downfalls of indecision. When the decision itself is an unethical one (e.g. Theft), it is desirable not to act on it. On the other hand, when one is faced with the opportunity to make a correct decision (e.g. reporting theft), these biases inhibit the workers’ ability to make correct choices. In these circumstances, the innate bias toward remaining in the current state of affairs can lead to behaviors that are undesirable and unethical for the organization, and sometimes, society. The innate bias toward inaction and indecision are possible explanations for the high frequency of passive and indirect aggression found in R. A. Baron and Neuman (1996). This leads to the second hypothesis:

Hypothesis 2. People are more likely to behave unethically when doing so involves passive rather than active behaviors.

Self-Regulation and Passive Unethicality

Passive unethical behaviors have certain characteristics that are more difficult to regulate and control than active unethical behaviors. As previously established, people are inherently biased toward passive behaviors. Any form of action or task switching requires cognitive
resources and potentially physical resources, if the new task involves physical movement. When resisting the urge to engage in active unethical behavior, the individual has to resist performing the unethical act. On the other hand, when resisting the urge to engage in passive unethical behavior, the individual must engage in a new behavior or switch to a new task because the behavior they are currently engaged in is undesirable. A second characteristic of passive unethical behaviors is that they are more difficult to identify. Active unethical behaviors such as theft are easily identified by the initiation of the action. Passive unethical behaviors such as giving the silent treatment are not easily identified because they happen gradually. Gino and Bazerman (2009) found that when unethical behavior happens gradually, rather than abruptly, it is more likely to be accepted. The gradual nature and ambiguity of this behavior adds to the difficulty of the monitoring stage of the self-regulatory process. This difficulty in monitoring one’s behavior and the inherent bias towards remaining in the status quo is compounded when the individual is in a state of ego-depletion. This is due to the additional cognitive resources needed to monitor one’s behavior and leave the status quo. For this reason, bias towards inaction and difficulty in monitoring passive deviant behaviors should lead to a bigger effect of ego-depletion on passive unethical behavior than active unethical behaviors.

Hypothesis 3. Ego-depletion has a greater effect on passive unethical behaviors than active behaviors. In other words, there is a greater increase in passive unethical behaviors in the ego-depletion state than in active unethical behaviors.
CHAPTER II: METHODS

Participants

The data for this study were comprised of responses from 624 participants recruited via Amazon Mechanical Turk. M-Turk allows individuals from throughout the world to fill out surveys for pay. Once registered for the site, participants can select from over 100,000 tasks to complete. First, a task is posted on the website and a particular level of pay is specified. After the task is posted, it is included on a list of tasks that participants (called "Workers" on the site) can select from if they would like to participate. In the current project, workers were directed to complete the survey on an external website, Qualtrics.com. Participants received $0.40 for their work and were also entered into a raffle drawing for a $25 bonus payment. The winner of the drawing received the bonus payment on their M-Turk account. During data analysis, participants who did not provide a response to any part of the study were removed. Next, three individuals who responded only with completely incomprehensible strings of letters (e.g. “asdfsasdf”) were also removed. The final number of subjects retained for data analysis was 560. Demographic information was not collected for the study but the experiment was limited to participants in the United States only to avoid confounding results with cross-cultural differences. In addition, past research has demonstrated that samples obtained from Mturk are more broadly representative of the U.S. population than samples of college undergraduates (Paolacci, Chandler, and Ipeirotis, 2010).

Design and Measures.

There are two experimental factors in the 2 x 2 between-subject design. The first between-subject factor was self-regulation (Control vs. Ego-Depletion). The second between-subject factor was the cheating condition (Active vs. Passive). Unethical behavior was
operationalized as false self-reports of performance on a situational judgment test. First, participants performed the self-regulation manipulation task. Each participant was randomly assigned to either the experimental condition (Ego-depletion) or the control condition. Next, all participants completed the situational judgment task (SJT). Finally, participants graded their own responses based on a set of criteria. In the grading section, participants were randomly assigned to either the active cheating condition or passive cheating condition. After the grades had been submitted, participants completed an exit questionnaire (Appendix A) and were debriefed on the nature of the study.

**Ego-Depletion Manipulation.** The response inhibition task was used as the self-regulation manipulation (Schmeichel, 2007). In both conditions of the task, participants were asked to write a detailed story about a recent vacation for five minutes. Appendix B presents the task prompts as seen by the participants. Participants were not able to advance to the next screen before the five minutes are up; there is also a countdown timer on the screen. In the control condition, no further instructions were given. In the ego-depletion condition, participants were instructed to refrain from using the letters “e” and “r” in their writing. The two letters are extremely common in the English language; therefore, participants must exert self-control in order to achieve this requirement. Past research has found that this task affects subsequent performance on activities that require executive control and other cognitive capacities such as working memory (Schmeichel, 2007). Subjects wrote their essay response on Qualtrics.com.

**Situational Judgment Task.** After the self-regulation manipulation, participants completed a short situational judgment task. For the SJT, participants read a short scenario regarding an error during the checkout process at a typical supermarket. The customer in the scenario claims that he was overcharged for his purchase. The participant’s task was to describe the specific steps
to take as the cashier to effectively resolve the problem. The specific instructions for the SJT are presented in Appendix B.

After the participants completed the SJT, they advanced to the self-grading screen. On the self-grading screen, they viewed three specific criteria for the correct response. The three criteria were: 1) Did you explicitly (verbally) apologize to the customer at any point of the interaction? 2) Did you mention double-checking the items on the receipt with his items? 3) Did you contact the manager or supervisor to help resolve the problem? Their own response was also displayed on the screen. On this same screen, participants were asked to report whether or not they had completed all three of the criteria. Participants were also told that if they satisfied all three criteria, they would be enrolled in a raffle drawing for one of ten cash awards of $25 in addition to the $0.40 they would receive for participating in the survey.

Active vs. Passive Cheating. The active/passive cheating conditions were differentiated by the format of the grading form. Appendix B presents the grading stimuli as seen by the participants. In the active condition, the form states: “Check the box if you DID satisfy all three criteria above.” In the passive condition, the form states: “Check the box if you DID NOT satisfy all three criteria above.” Checking the box represents an active behavior while leaving the box unchecked reflects passive behavior. As part of the comprehension check questions, each participant was asked if he or she understood when to check the box and when to leave it unchecked. Specifically, participants were asked “If you satisfied (didn’t satisfy) all three criteria, would you have checked the box or leave it unchecked?” Participants who did not answer this questions correctly based on the assigned condition were left out. Dishonest behavior is operationalized with falsely reporting the completion of all three criteria on the SJT when they actually did not. In the active condition, one would do so by checking the box; and in the passive
condition, one would do so by leaving the box unchecked, which is its default state. While the act of checking a box on the computer may seem effortless and minute, it has been shown to have a significant effect on decision-making. A similar method was used by Johnson and Goldstein (2003) where they were interested in the state of the default option and its effect on people’s willingness to be an organ donor. The authors found that in countries where the default option was to opt-in, there was a significantly higher agreement than when the default option was to opt-out. Their results showed that people often avoid making a decision because it can be stressful and the physical effort of changing the form is more taxing than leaving it at the default option. Their study illustrates the bias toward the default option, which is leaving the box unchecked regardless of the outcome. In the current study, I examine if the bias towards the default option also applies to the misrepresentation of performance.

Pilot Study

First, a pilot study was conducted with 37 undergraduate students from Bowling Green State University. The purpose of the pilot was to obtain a baseline performance on the SJT in a non-incentivized situation and to test the adequacy and clarity of the grading criteria. The pilot consisted of only the SJT with no monetary reward for meeting the criteria. Subjects graded their own response and completed an exit questionnaire to assess their understanding of the criteria and instructions. Based on the self-grade, the average number of criteria met was 1.86 (SD=0.41) while the independent graders’ average criteria met was 1.16 (SD=0.52), t(35) = 6.08, p<0.01. The participants were also asked if the grading criteria was easy to understand with a three-point Likert scale with 1 being “difficult” and 3 being “easy”, the mean response to the question was 2.87, indicating that the grading criteria were fairly easy to understand.
CHAPTER III: RESULTS

Manipulation Check

A three-item scale (α= 0.87) was used to assess the cognitive effort of the self-regulation task. Participants were asked to indicate to what extent the first task required 1) cognitive effort, 2) willpower, and 3) self-control. Table 1 presents the results of the manipulation check. As expected, subjects in the ego-depletion condition (Mean: 3.37, SD: 0.71) found the writing task a lot more cognitively demanding than the subjects in the control condition (Mean: 1.99, SD: 0.65, t(558) = 22.24, p<0.001). Furthermore, subjects in the ego-depletion condition (Mean: 5.19, SD: 1.57) found the writing task to be more difficult than the subjects in the control condition (Mean: 2.10, SD: 1.45, t(558) =23.98, p<0.001). The manipulation check items can be found in Appendix A.

Scores

Three independent raters graded the responses based on the criteria. Each grader indicated the number of criteria the responses met. After the first round of grading, the graders met to discuss ambiguities in the interpretation of the responses. One example of ambiguity was that some participants used different terminology for receipt such as “Register Tape” or “Ticket.” Another source of ambiguity was whether the verbal apology was conditioned on the event that a mistake was made by the cashier. For example, some participants responded with “I would apologize if I made a mistake…” The independent graders agreed that any form of apology would be accepted as passing the criteria regardless of the condition under which the apology occurred. Responses were then re-graded independently based on the rules that the graders agreed to. The overall agreement across graders improved from 87.7% to 99.6%. The average score for the sample based on independent graders was 1.48 (0.84). The independent graders’
score on the number of criteria completed was used in determining whether the response was a pass or fail. A response was considered a pass if it completed all three criteria, while completing less than three criteria would result in a fail. Across all conditions, 11% of the participants passed based on the independent graders’ evaluation.

**Cheating**

Next, the independent raters’ pass/fail scores for each participant were compared to self-reports of pass/fail. These results were coded 1 for cheating (i.e., self-report score was greater than score provided by independent graders) or 0 if the self-reported score and independent graders’ score matched. This cheating variable was then used as the dichotomous dependent variable in a logistic regression to examine the effect of ego-depletion and active/passive cheating manipulation. In the first step of the logistic regression, the self-regulation factor (0: Control, 1: Ego-depletion) and the active/passive cheating manipulation (0: Active, 1: Passive) were entered as predictors of cheating. The overall model was significant in predicting the likelihood of cheating ($\chi^2(2) = 7.65, p< 0.05, -2 \text{ Log likelihood} = 569.04$). The self-regulation factor was found to significantly contribute to the overall model such that individuals in the ego-depletion condition were 77% more likely to cheat than participants in the control condition (Wald’s $\chi^2(1)=7.45, \text{Exp}(\beta)=1.77, p<0.01$); thus, hypothesis 1 was supported. However, the active/passive cheating condition did not significantly contribute to the overall prediction in the first step of the model (Wald’s $\chi^2(1)=0.22, \text{Exp}(\beta)=0.91, p=0.64$), thus, hypothesis 2 was not supported. The second step of the model included the interaction term between self-regulation and active/passive cheating. There was no significant incremental increase in variance explained in the second step of the model ($\Delta \chi^2 = 0.18, p=0.67$) and the interaction term was not significant (Wald’s $\chi^2(1)=0.18, \text{Exp}(\beta)=1.20, p=0.67$). Thus, hypothesis 3 was not supported. Table 2
summarizes the logistic regression results. Figure 1 illustrates marginal mean proportion of participants who cheated.

Next, the self-reported number of criteria passed was also used as the dependent variable. More specifically, the difference between the self-reported number of criteria and the independent graders’ report of the number of criteria passed was computed (M=0.52, SD=0.79). The discrepancy between these reports was then used as an indicator of the severity of cheating. Results indicated that the discrepancy between these reports was significantly related to the likelihood of cheating using a point-biserial correlation (r = 0.56, p<0.001). A 2x2 ANOVA was also conducted to examine the group differences in this operationalization of cheating. The overall model was not found to be significant (F(3) = 1.72, p=0.16). However, there was a significant main effect of the self-regulation condition such that participants in the ego-depletion condition reported significantly more criteria passed over the independent grader’s score (M=0.60, SD=0.85) than participants in the control condition (M=0.46, SD=0.73), F(1) =4.51, p<0.05. However, the main effect of the active/passive grading frame was not significant (F(1) = 0.01, p=0.43). Table 3 presents the marginal table for proportion of participants that cheated as well as the score discrepancy between self-reported and independent graders’ ratings of number of criteria met. The effect of self-regulation on the number of criteria passed provides further support that participants in the ego-depletion condition were more likely to over-report their performance than participants in the control condition.
CHAPTER IV: DISCUSSION

The current study examines how an individual’s cognitive state affects the perpetration of active and passive unethical behaviors. The results supported previously established findings that self-regulatory resources are useful for resisting the impulse to cheat. When an individual is low on self-regulatory resources, he or she is more likely to behave unethically. In the current study, participants were more likely to report that they had passed the SJT in the ego-depletion condition than in the control condition. However, the active/passive cheating manipulation did not have an effect on cheating behaviors. Participants were not biased toward the default option in this context. Possible post-hoc explanations are the weakness of the experimental manipulation and the lack of ecological validity. While previous research has shown that the default option can significantly bias the decision, it may not be applicable in all decision scenarios. Decisions to donate organs (as in the study by Johnson & Goldstein, 2003) may be much more cognitively taxing than the scenario used in the current study, resulting in the effect of the default option having a much bigger influence on the final decision. In addition, one could argue that checking the box and leaving the box unchecked are both active behaviors because the participant had not received any compensation at this point. One way of strengthening the manipulation would be to offer the participants the financial incentive first and then ask them to return the incentive if they feel that they do not meet the criteria. In this scenario, it would be unethical to take the money and the right decision would be to actively return it. This would be more representative of real life scenarios in which employees passively allow unethical situations to persist while benefitting from them personally. The lack of a strong financial incentive may also have deterred participants from being dishonest. As part of the exit questionnaire at the end of the experiment, participants were asked to indicate what the value of award for winning the
raffle would have to be in order for them to be dishonest. The results showed that many of the participants would have behaved dishonestly if the financial incentives were significantly higher (figure 3).

The ambiguity of the grading scheme for the SJT may raise some questions as to the objectivity of the criteria and the construct validity of the dependent variable. As evidenced by early disagreements among the independent raters, some responses may be ambiguous due to their wording. For example, some participants referred to the receipt as a “ticket” or “register tape.” This ambiguity also may affect how the participants graded their own response. Strict graders may interpret the criteria such that any phrase other than “receipt” is not a correct response, while lenient graders may give themselves more leeway as to what is a correct response. The ambiguity of the grading criteria creates room for ethical maneuvering in a justifiable manner as it allows the participants to grant a variety of responses even if a criterion is not strictly met. Despite this limitation, the difference in the amount of over-reporting between experimental conditions is still valid due to the random assignment inherent in the design of the study. However, the difference in self-report scores and independent graders’ scores in the non-incentivized pilot study suggests that there is upward bias in the self-report score even when there are no incentives for doing so. This poses the question of how much of the over-reporting can be attributed to cheating, and how much is due to other unrelated reasons and personal biases. Several post-hoc findings are presented below in an attempt to reconcile some of the limitations of this study by showing that cheating is not always as black and white as it seems.

Future research should investigate the idea of passive unethical behavior in different contexts and with different methodologies. While previous research has demonstrated people’s biases toward the default option, it may not be directly applicable and appropriate for examining
passive unethical behavior. In contrast, a stronger and more realistic design may produce larger effects. Furthermore, the lack of a strong financial incentive could also be a reason for the non-significant findings in this study. Unethical behaviors require one to balance the reward and maintenance of one’s self-concept (Mazar, Amir, & Ariely, 2008). In the current study, the incentives may be too weak to justify behaving unethically.

Exploratory Findings

While the primary hypotheses were not all supported, the results did reveal several interesting findings regarding unethical decision-making. When people behave unethically, they must balance the personal gains and their own self-concept (Mazar et al., 2008). The theory of self-concept maintenance suggests that people like to think of themselves as being honest and ethical. When behaving dishonestly, people will bend the rules or ignore their moral compass in order to receive the benefits of the dishonest behavior while maintaining their integrity. The theory of justified unethicality suggests that people allow themselves to behave unethically by finding justifications for their behavior (Shalvi, Dana, Handgraaf, & De Dreu, 2011). The subjective nature of the criteria in the present study may have given participants justifications for bending the rules in order to receive a higher score while still maintaining their self-concept as being an honest person. Additional post-hoc analyses were conducted to examine different ways of justifying one’s behavior and at the same time, maintaining one’s moral self-concept.

Justified ethicality and Self-concept maintenance. There are many situations in real life where the line between ethical and unethical behavior can be somewhat blurred. While people try to maintain a moral self-concept, the ultimate decision may be ethical to some but unethical to others. The difference is the perceived ethicality of one’s behavior is a function of how different individuals rationalize and justify the decision. An example of ethical ambiguity can be
found in academia. Data-peeking and optional stopping is considered an unethical and inappropriate data collection practice (Francis, 2012). This occurs when researchers make decisions to stop collecting data or collect additional data based on the significance of the results. However, the strength of one’s belief in this ethical guideline will vary between researchers based on their own philosophy of statistical inference, understanding of null-hypothesis significance testing, and a number of other factors. One researcher may find a result of marginal significance and decide that getting a few more subjects to increase the power of the study is an acceptable practice. He or she may rationalize a lenient interpretation of the rule by believing that data should be cumulative, p-values are arbitrary, etc. On the other hand, some researchers consider this unethical and flawed because they believe optional stopping invalidates the meaning of the result as it changes the sampling distribution of the test (Kruschke, 2012). Ultimately, both researchers are behaving in such a way that maintains their self-concept because they have justified their behavior. When a researcher decides to engage in optional stopping, he or she may not believe that the behavior is unethical, but rather, a justified bending of the rules. The current study explores this phenomenon. After the task, participants were asked to report whether or not they were dishonest in their own grading after revealing the true intention of the study. Only 10 participants admitted to being dishonest. Of the 10 participants who admitted to being dishonest, all 10 passed the SJT based on their self-report while only one passed based on the independent graders’ assessment. This provides some construct validity to the operationalization of cheating used in the study. However, when later asked the question: “If you did not report your grade completely honestly, how lenient were you with grading your own response?” 49 participants responded “a little,” 20 participants responded “somewhat” and 13 responded “a lot.” This demonstrates that participants were less likely to admit being dishonest,
in order to maintain their moral self-concept, than admit to being lenient in their grading. It is also possible that participants simply did not view being lenient as a form of cheating. Self-reported leniency was significantly correlated with cheating (r=0.17, p<0.001) and the reported criteria discrepancy (r=0.14, p<0.01), demonstrating that it is related to the decision to cheat.

The ambiguity of the criteria gave participants one justification to inflate their self-reported score, but it is not the only source of justifications. There are many potential sources of justification one can gather to rationalize his or her actions. As such, I conducted several post-hoc analyses to explore two additional sources of justification. The first is the participant’s perceived quality of his or her own response, and the second is the participant’s perceived quality of the proposed criteria in the SJT. Most people can probably recall a time in school when they received a grade on an essay that they believed was unjust because the quality of the writing was much higher than the grade received, or that the rubric for grading was flawed. If one had the opportunity to cheat and change the grade, it would be easier to justify the action if those conditions were true. Similarly, in the current study, participants may have been more inclined to cheat if they believed that their own response was adequate or that the criteria were flawed. In this regard, logistic regression was used to test if the two sources of justification mentioned above predicted cheating behavior. Cheating behavior was regressed onto the perceived response quality and perceived quality of the criteria after accounting for variance explained by self-regulation. There was a significant incremental increase in the fit of the logistic regression model when both justification variables were added (χ²(2) = 17.88, p<0.01, Δχ²(2) =10.86, p<0.01). The perceived quality of the criteria significantly contributed to the overall model such that for every unit increase in perceived quality, participants were 24% less likely to cheat (Wald’s χ²(1)=4.76, Exp(β)=0.76, p<0.05). Perceived quality of the response also contributed significantly to the
model such that for every unit increase in the quality of the response, participants were 39% times more likely to cheat (Wald’s $\chi^2(1)=6.19$, $\text{Exp}(\beta)=1.39$, $p<0.05$). Table 4 presents a summary of the post-hoc regression results. The results show that when participants perceived the criteria as an effective solution to the problem, they were less likely to cheat; on the other hand, when participants perceived their response to be of high quality, they were more likely to cheat.

The results are consistent with the theory of justified ethicality and suggest that the perception of one’s performance and the rules may serve as potential justifications for cheating. When participants perceived their own response to be of high quality, they were more lenient with their grading, resulting in over-reporting of performance. On the other hand, when participants perceived the grading criteria to be effective, they were less lenient with their grading, which resulted in less over-reporting. It is important to note that these findings were post-hoc and may be capitalizing on chance. There is also uncertainty as to the causal relation between seeking justification and cheating behavior. The question of whether justification was sought out before the decision to cheat, or generated to rationalize the behavior after the fact, still remains. However, the directions of the relationships are consistent with previous theory and findings (Mazar et al., 2008; Shalvi et al., 2011). Therefore, more research is needed to understand the relationship between justification and unethical behavior.

**Conclusion**

The current study demonstrated that when one’s self-regulatory resources are taxed from an act that requires self-control, they are more likely to cheat on a subsequent task. This is the result of having limited capacity to engage in impulse control. Multiple independent researchers have found similar findings regarding the role of self-regulatory resources and self-control on
unethical decision-making. However, the format in which one reports their grade (active vs. passive) did not have an effect on the amount of cheating. People were just as likely to cheat if it required actively checking a box or passively leaving the box unchecked. The lack of findings may be due to the weak financial incentive and the lack of ecological validity of the manipulation. Future research should explore the concept of passive unethical behaviors in stronger and more ecologically valid contexts. In practice, managers and organizations should find ways to reduce the cognitive load of their employees as one way of preventing unethical behaviors such as theft. In addition, it is also important to consider other factors that employees may use to justify their behavior.
REFERENCES


*American Psychologist, 48*(10), 1070-1076.


### Table 1.

*T-Test Results for Manipulation Check*

<table>
<thead>
<tr>
<th>Self Regulation</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Task Difficulty</td>
</tr>
<tr>
<td>Control</td>
<td>309</td>
<td>5.19</td>
<td>1.57</td>
<td>23.98**</td>
</tr>
<tr>
<td>Ego Depletion</td>
<td>251</td>
<td>2.10</td>
<td>1.45</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cognitive Effort (α = 0.87)</td>
</tr>
<tr>
<td>Control</td>
<td>309</td>
<td>1.99</td>
<td>0.65</td>
<td>22.24**</td>
</tr>
<tr>
<td>Ego Depletion</td>
<td>251</td>
<td>3.37</td>
<td>0.71</td>
<td></td>
</tr>
</tbody>
</table>

*Note: ** = p<0.01.*
Table 2.

Logistic Regression Results Examining the Effect of Self-Regulation and Grading Frame on Cheating

<table>
<thead>
<tr>
<th>Predictors</th>
<th>β</th>
<th>SE(β)</th>
<th>Wald's (DF=1)</th>
<th>Exp(β)</th>
<th>Model $\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Regulation</td>
<td>0.57</td>
<td>0.21</td>
<td>7.45**</td>
<td>1.77</td>
<td>7.65*</td>
</tr>
<tr>
<td>Grading Frame</td>
<td>-0.98</td>
<td>0.21</td>
<td>0.22</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Regulation</td>
<td>0.49</td>
<td>0.29</td>
<td>2.78</td>
<td>1.62</td>
<td>7.83*</td>
</tr>
<tr>
<td>Grading Frame</td>
<td>-0.19</td>
<td>0.31</td>
<td>0.40</td>
<td>0.83</td>
<td>$\Delta\chi^2 = 0.18$ns</td>
</tr>
<tr>
<td>SR X Grade</td>
<td>0.17</td>
<td>0.42</td>
<td>0.18</td>
<td>1.20</td>
<td></td>
</tr>
</tbody>
</table>

Note: * = p<0.05. ** = p<0.01. Dependent Variable: 0 = Honest, 1 = Cheat

Self-regulation: 0=Control, 1=Ego-depletion, Grading Frame: 0=Active, 1=Passive
Table 3.

*Marginal Table for Proportion of Cheating and Average Over-Report of Criteria*

<table>
<thead>
<tr>
<th></th>
<th>Active</th>
<th></th>
<th>Passive</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Cheat Proportion</td>
<td>Criteria Discrepancy</td>
<td>N</td>
</tr>
<tr>
<td>Control</td>
<td>160</td>
<td>18%</td>
<td>0.48(0.74)</td>
<td>149</td>
</tr>
<tr>
<td>Ego-Depletion</td>
<td>121</td>
<td>26%</td>
<td>0.57(0.84)</td>
<td>130</td>
</tr>
</tbody>
</table>

*Note:* Cheat proportion is the proportion of participants whose self-reported pass/fail is different from the independent graders’ assessment. Criteria discrepancy is the difference between the self-reported number of criteria passed and the independent graders’ reported number.
Table 4. 

*Logistic Regression Results for the Effects of Justification on Cheating*

<table>
<thead>
<tr>
<th>Predictors</th>
<th>β</th>
<th>SE(β)</th>
<th>Wald's (DF=1)</th>
<th>Exp(β)</th>
<th>Model $\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 Self-Regulation</td>
<td>0.55</td>
<td>0.21</td>
<td>6.97**</td>
<td>1.74</td>
<td>7.01**</td>
</tr>
<tr>
<td>Step 2 Self-Regulation</td>
<td>0.53</td>
<td>0.21</td>
<td>6.27**</td>
<td>1.70</td>
<td>17.88**</td>
</tr>
<tr>
<td>Criteria Quality</td>
<td>-0.27</td>
<td>0.12</td>
<td>4.76*</td>
<td>0.76</td>
<td>$\Delta\chi^2 = 10.86**$</td>
</tr>
<tr>
<td>Response Quality</td>
<td>0.33</td>
<td>0.13</td>
<td>6.19*</td>
<td>1.39</td>
<td></td>
</tr>
</tbody>
</table>
Figure 1.

Proportion of Participants Passing (i.e., meeting all three criteria) in Each Condition
Figure 2.

*Average Criteria Discrepancy in Each Condition.*

Note: Average criteria discrepancy is the difference between average difference between the self reported number of criteria passed and the independent graders’ assessment of criteria passed.
Figure 3.

*Incentives Necessary to Report Dishonestly*
APPENDIX A

EXPERIMENTAL INSTRUCTIONS

SELF-REGULATION TASK

Control Condition: Please recall the last vacation you took. Please spend the next 5 minutes to write a short essay about that vacation.

Ego-Depletion Condition: Please recall the last vacation you took. Spend the next 5 minutes to write a short essay about that vacation. While writing the essay, refrain from using the letters “e” and “r.”

SITUATIONAL JUDGMENT TASK

“Next, read the statement below, and give your best response.

Imagine you are a cashier at a local grocery store. A customer is upset because he claims that you overcharged him on his order. Please describe in detail all the steps you would take to try to resolve this problem. Please take 2 to 4 minutes to make your response.”

SELF-GRADING PROMPT

“Next, you will grade your own response based on a set of criteria. If you satisfy all three criteria, you will be entered into a raffle drawing to win one of ten $25 Amazon mTurk Cash Bonuses. The cash credit will be delivered to your mTurk account as a bonus on the current HIT.”

Below is your response:

[Participant’s actual response from the SJT]
Please read the following criteria and grade your response based on the criteria listed.

1. Did you explicitly (verbally) apologize to the customer at any point of the interaction?
2. Did you mention double-checking the items on the receipt with his items?
3. Did you contact the manager or supervisor to help resolve the problem?

Active Condition Prompt: Check the box if you DID satisfy all three of the criteria above.

☐

Passive Condition Prompt: Check the box if you DID NOT satisfy all three of the criteria above.

☐
APPENDIX B

EXIT QUESTIONNAIRE

How many criteria did you satisfy?

a. 0  
b. 1  
c. 2  
d. 3

If you satisfied all three criteria, would you have checked the box or leave it unchecked?

a. Checked  
b. Unchecked

If you did not satisfy all three criteria, would you have checked the box or leave it unchecked?

a. Checked  
b. Unchecked

How difficult was the first writing task regarding your last vacation?

a. Very difficult  
b. Difficult  
c. Somewhat difficult  
d. Neutral  
e. Somewhat easy  
f. Easy  
g. Very easy

To what extent did the first writing task regarding your last vacation require self-control?

a. None  
b. Little  
c. Some  
d. A lot

To what extent did the first task regarding your last vacation require cognitive effort?

a. None  
b. Little  
c. Some  
d. A lot
To what extent did the first task regarding your last vacation require willpower?

a. None  
b. Little  
c. Some  
d. A lot

How difficult was the second task regarding handling a cashier error?

a. Very difficult  
b. Difficult  
c. Somewhat difficult  
d. Neutral  
e. Somewhat easy  
f. Easy  
g. Very easy

In your own opinion, how would you rate the quality of your response in this situation compare to the one proposed in the criteria?

a. Much worse  
b. Worse  
c. About the same  
d. Better  
e. Much better

How would you rate the effectiveness of the steps we outlined in the criteria for this situation?

a. Very ineffective  
b. Ineffective  
c. Neither effective nor ineffective  
d. Effective  
e. Very effective

How much does the raffle prize have to be in US Dollars for you to grade your response dishonestly if you were certain you had full anonymity in this situation? Select “Not Applicable” if you would never consider reporting your result dishonestly even with full anonymity.

(Participants entered the value using a slider bar from $20 to $250)

If you did not report your grade completely honestly. How lenient were you with grading your own response?

a. None  
b. Little
c. Some  
d. A lot

Did you suspect that the first task regarding the vacation was related to any part of the latter tasks? If so please describe your suspicion and whether it altered your behavior.

a. Yes  
b. No

Did you suspect that the task was about misrepresentation of performance for monetary gains? If so, please describe your suspicion and whether it altered your behavior.

a. Yes  
b. No

Have you ever held a job as a cashier?

a. Yes  
b. No
DATE: February 15, 2013

TO: Don Zhang
FROM: Bowling Green State University Human Subjects Review Board

PROJECT TITLE: [327832-3] Unethical behaviors in the workplace: a self-regulation perspective
SUBMISSION TYPE: Revision

ACTION: APPROVED
APPROVAL DATE: February 13, 2013
EXPIRATION DATE: December 26, 2013
REVIEW TYPE: Expedited Review

REVIEW CATEGORY: Expedited review category # 7

Thank you for your submission of Revision materials for this project. The Bowling Green State University Human Subjects Review Board has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

The final approved version of the consent document(s) is available as a published Board Document in the Review Details page. You must use the approved version of the consent document when obtaining consent from participants. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please add the text equivalent of the HSRB IRBNet approval/expiration date stamp to the “footer” area of the electronic consent document.

Please note that you are responsible to conduct the study as approved by the HSRB. If you seek to make any changes in your project activities or procedures, those modifications must be approved by this committee prior to initiation. Please use the modification request form for this procedure.

You have been approved to enroll 600 participants. If you wish to enroll additional participants you must seek approval from the HSRB.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. All NON-COMPLIANCE issues or COMPLAINTS regarding this project must also be reported promptly to this office.

This approval expires on December 26, 2013. You will receive a continuing review notice before your project expires. If you wish to continue your work after the expiration date, your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date.

Good luck with your work. If you have any questions, please contact the Office of Research Compliance at 419-372-7716 or hsr@bgsu.edu. Please include your project title and reference number in all correspondence regarding this project.

- 1 -
This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Bowling Green State University Human Subjects Review Board's records.