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# Trait self-control and the avoidance of temptation

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ABSTRACT

High trait self-control has been traditionally described as a keen ability to resist temptation. The present research suggests that high trait self-control is linked to avoiding, rather than merely resisting, temptation. People high in trait self-control reported engaging in behaviors thought to minimize (or avoid) temptation to a greater extent than people low in trait self-control (Study 1). People high in trait self-control were more likely than those low in trait self-control to choose to work in a distraction-free environment rather than in a distracting, yet appealing, one (Studies 2 and 3).



## 1. Introduction

The benefits of effective self-control are numerous and important to people. Good self-control has been linked to academic, occupational, and social success, to good mental and physical health, to reductions in crime, and to longer life (de Ridder, Lensvelt-Mulders, Finkenauer, Stock, & Baumeister, 2012; Gottfredson & Hirschi, 1990; Mischel, Shoda, & Peake, 1988; Moffitt et al., 2011; Shoda, Mischel, & Peake, 1990; Tangney, Baumeister, & Boone, 2004). Effective self-control certainly involves resisting impulses and desires that could create problems, such desires to smoke, drink, take drugs, aggress, steal, and have risky sex. The present research highlights the avoidance of circumstances in which one would face such impulses as strategy for effective self-control.

Some people score higher than others on trait self-control. They would presumably enjoy the advantage of being able to resist problematic impulses frequently and effectively. Yet an experience sampling study by Hofmann, Baumeister, Förster, and Vohs (2012) found the seemingly opposite result: People with high self-control reported resisting impulses less frequently than others. The authors of that paper speculated that people with good self-control employ it to avoid temptations and problems, rather than relying on it to resist and solve them. The present investigation was intended as a test of that hypothesis.

## 2. Vulnerability of self-control

Attempting to resist impulses as they arise (rather than avoiding such impulses) may be a relatively ineffective self-regulatory strategy. The capacity to resist impulses depends on self-regulatory capacity generally. Recent work has suggested that each person's capacity for self-regulation fluctuates across time, presumably because each act expends and depletes a limited resource, so that one's willpower occasionally becomes depleted (Baumeister, Vohs, & Tice, 2007; Hagger, Wood, Stiff, & Chatzisarantis, 2010). Hence, if people rely solely on their willpower to resist temptation, they are likely to fail periodically, if only because some temptations will be encountered when one's powers of resistance are low.

Effective self-control might therefore involve more than resisting temptation. Fujita (2011) made a persuasive case for broadening the focus of self-regulation research beyond effortful inhibition of impulses. Although resisting temptation and inhibiting problem desires are undoubtedly useful capabilities, avoiding tempting situations so as minimize problematic impulses could reduce the risk of self-regulatory failure.

## 3. Resisting versus avoiding temptation

Avoiding temptation can prevent many instances of self-regulatory failure caused by depleted willpower. After all, the danger of yielding to impulse is greatly reduced if the impulse never arises. To be sure, avoiding temptation is itself an act of self-regulation, indeed one requiring forethought, effective anticipation, and self-knowledge. Although people with weak self-control might benefit most from the strategy of avoiding temptation, they may be least likely to use it.

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In a sense, avoiding temptation is a meta-regulation strategy that enables the self-regulator to manage self-regulatory resources effectively. By avoiding temptations, one can save oneself the presumably greater expenditure of willpower that would be necessary to resist them, thereby putting oneself less often into a depleted and vulnerable state.

## 4. Trait self-control

There are stable individual differences in how successful people are at exercising self-control. For example, impulse control in early childhood has been found to predict academic success and ability to cope with frustration during adolescence (Mischel et al., 1988). Tangney et al. (2004) provided a trait measure of self-control and found that high trait self-control was associated with psychological wellbeing, interpersonal success, low levels of binge eating and alcohol abuse, and other desirable outcomes. If self-control relies on a limited resource, then it would be reasonable to suspect that people high in trait self-control either possess more self-regulatory resources or manage them better than people low in trait self-control (or both). Consistent with this view, people high in trait self-control are better than others at inhibiting the impulse to blink and tolerating a painful stimulus for a longer period of time (Schmeichel & Zell, 2007). Such tasks require a one-time expenditure of self-regulatory resources, and people high in trait self-control seemed to have more resources available than people low in trait self-control.

Although trait self-control has been traditionally thought of as a keen ability to resist temptation through the expenditure of self-regulatory resources, there is some preliminary evidence that trait self-control might involve the effective management of such resources. A recent meta-analysis found that trait self-control was more related to automatic behaviors such as forming habits than to consciously controlled behavior (de Ridder et al., 2012). In addition, Imoff, Schmidt, and Gerstenberg (2013) found that people high in trait self-control reported less frequent effortful attempts to exercise self-control in everyday life compared to people low in trait self-control. These findings suggest that people high in trait self-control may form habits that prevent them from having to expend their self-regulatory resources to resist temptations.

## 5. Present investigation

The present investigation tested the hypothesis that people high in self-control would be more likely than others to avoid temptations and distractions. We report one survey and two experiments to test this hypothesis.

### 5.1. Study 1

Study 1 relied on self-reports of the degree to which people engage in behaviors thought to minimize (or avoid) temptation. The list of behaviors that we asked about was taken from the review of self-control strategies provided by Baumeister and Tierney (2011). These behaviors include avoiding tempting situations and distractions, seeking goal-facilitating friends, having a clear code of conduct, and forming systematic plans for how to achieve one's goals. People high in trait self-control were expected to report engaging in all of these behaviors more than people low in trait self-control.

We acknowledge that one could have made the opposite prediction. Scoring high on a self-report measure of self-control means rating oneself as good at resisting temptation, controlling impulses, and in other respects managing one's life effectively. Such individuals thus might be highly confident or even overconfident about their ability to resist temptation, and so they might not feel the need to avoid temptation (for relevant review, see Fujita, 2011). People who know they lack willpower — and therefore score low on a self-report measure of self-control — would be the ones who ideally should avoid temptation, knowing all too well that they often yield.

#### 5.1.1. Method

*5.1.1.1. Participants.* We did not have any specific expectation for the size of the effect of trait self-control on the avoidance of temptations and distractions. A recent meta-analysis found that trait self-control displayed a medium effect size when predicting a variety of behaviors (de Ridder et al., 2012). For a medium effect size, to achieve power of .80, Cohen (1992) recommended a sample size of 85 for a correlation.

Ninety-one people (47 female) from the United States completed surveys on Amazon's Mechanical Turk website. Participants' ages ranged from 19 to 71 years ($M = 36.27$).

*5.1.1.2. Procedure.* Trait self-control was assessed using the Self-Control Scale (Tangney et al., 2004). This scale consists of 13 items that participants rate on a 5-point scale from "not at all" to "very much." Example items are "People would say that I have iron self-discipline," and "I refuse things that are bad for me."

Participants also completed a brief questionnaire about the degree to which they engage in behaviors thought to minimize temptation. The questionnaire contained the following items: "I avoid situations in which I might be tempted to act immorally," "I choose friends who keep me on track to accomplishing my long-term goals," "When I work or study, I deliberately seek out a place with no distractions," "In my life, the line between right and wrong is very clear and sharply drawn," and "When I want something, I work out a systematic plan for how to get it." Participants rated these items on an 11-point scale from "not at all" to "very much."

*5.1.1.3. Results and discussion.* We combined the items meant to measure avoidance of temptation to form a composite measure, $\alpha = .753$. Trait self-control was positively related to avoiding temptation, $r(91) = .667$, $p < .001$.[1] Although most of the items on the Self-Control Scale deal specifically with resisting temptation, a few of the items could possibly deal with both resisting and avoiding temptation (e.g., "I am able to work effectively toward long-term goals"). Therefore, we calculated the correlation between our avoidance of temptation measure and the Self-Control Scale item "I am good at resisting temptation", $r(91) = .568$, $p < .001$.

People high in trait self-control were more likely than those low in trait self-control to report frequent, systematic avoidance of temptations and distractions. High self-control is often understood in terms of resisting temptation and overcoming distractions that impede goal pursuit. Even though people high in trait self-control are adept at overcoming temptation, they reported that they avoid circumstances in which they would be forced to do so.

### 5.2. Study 2

Study 2 provided a laboratory test of the hypothesis linking high self-control to avoiding temptations and distractions. Participants were given an opportunity to work with or without distraction. The hypothesis was that people high in trait self-control would be more likely than those low in trait self-control to choose to work without distraction.

[1] Participants' level of temptation avoidance was unrelated to their age ($r = .08$, $p = .44$) and gender ($r = -.10$, $p = .35$).

*5.2.1. Method*

*5.2.1.1. Participants.* Based on the results of Study 1, trait self-control seems to have a large effect on the avoidance of temptation. Using the same method of determining an appropriate sample size as Study 1 (Cohen, 1992), our target minimum sample size for the current study was $n = 26$.

Thirty-eight undergraduate students (28 female) participated in this study for course credit. Participants' ages ranged from 18 to 23 years ($M = 18.90$).

*5.2.1.2. Procedure.* First, participants completed the Self-Control Scale.[2] Then, they were told that they would be engaging in an anagram-solving task. They were told that they could earn money for each anagram that they solved in the allotted time. Participants were told that the maximum amount of money that any participant could receive was $25. Then, the experimenter told participants that they would have to move to a different room to complete the anagram-solving task because another experimenter needed the room that they were in. Participants could choose to complete the anagram-solving task in either: (a) a graduate student lounge, or (b) an adjacent lab room. The experimenter explained that participants would have to wait 5 min or more for a lab room to be available, whereas the graduate student lounge was immediately available. The experimenter warned participants that the graduate student lounge could be distracting because there are often people in there talking. We told participants that they would have to wait for a lab room because otherwise they would have little, if any, reason to choose to work with distraction. In other words, the fact that participants would have to wait for the lab room was meant to make the graduate student lounge seem like an attractive option. After explaining the room-choice options, the experimenter asked participants to choose where to complete the anagram-solving task. Participants' choice of where to complete the task served as the dependent variable of the study.

Participants did not actually complete the anagram-solving task. After they indicated their choice of where they preferred to complete the task, participants were fully debriefed and thanked.

*5.2.1.3. Results.* Logistic regression revealed that high trait self-control was associated with choosing to complete the anagram-solving task in the lab room (coded as 1) rather than the graduate student lounge (coded as 2), $b_{log} = -0.14$, Wald $\chi^2 = 4.93$, $p = .026$, Odds Ratio = 0.87. The correlation between trait self-control and room choice was $r = -.386$. Overall, 45% of participants chose the lab room and 55% chose the graduate student lounge[3]

*5.2.1.4. Discussion.* Participants high in trait self-control were more likely than those low in trait self-control to wait for a distraction-free place to work rather than work in a more distracting area that was immediately available. Many students chose to work in the distracting environment. This indicates that the distracting option was a sufficiently attractive option to participants despite the disadvantage it gave them concerning the anagram task. Study 2 provided evidence that high trait self-control is associated with avoiding, rather than merely overcoming, distraction.

*5.3. Study 3*

Study 3 was a conceptual replication of Study 2. Participants in Study 3 were Mechanical Turk workers rather than undergraduates (Study 2). The hypothesis was that people high in trait self-control would be more likely than those low in trait self-control to choose to work without distraction.

*5.3.1. Method*

*5.3.1.1. Participants.* Given that this study was a conceptual replication of Study 1, our target minimum sample size for this study was also $n = 26$. Fifty-three people (24 female) from the United States completed the study on Amazon's Mechanical Turk website. Participants' ages ranged from 18 to 60 years ($M = 30.45$).

*5.3.1.2. Procedure.* First, participants completed the Self-Control Scale. They were also asked "How important to you is your level of intelligence?" They responded to this item on a 100-point scale from "not at all important" to "very important." Next, participants were told that they would complete an intelligence test and receive feedback about their performance. They were instructed to choose between two versions of the test: (a) the stylized version, or (b) the standard version. Participants were told that, in the standard version, the intelligence test items would be simply displayed in black and white; in the stylized version, the items would be displayed with pictures of classic and modern artwork on either side. Participants were told that the pictures of artwork in the stylized version of the test would change frequently throughout the test. Participants were shown an example item of each version of the test. The example item from the stylized version contained a picture of a ladder reaching up into a bright yellow sky that was swirling in a vortex-like fashion on either side of the test item. The stylized version of the test was meant to seem very distracting, yet visually appealing, compared to the standard version. After participants chose which test to take, they were debriefed and thanked for their participation.

*5.3.1.3. Results and discussion.* In a "comments" text box at the end of the study, one participant wrote "nice try" and expressed that she knew that we were measuring whether people would choose to work with distraction. This participant's data were excluded from the primary analyses.

Logistic regression revealed that high trait self-control was associated with choosing to take the standard version of the test (coded as 1) rather than the stylized version (coded as 2), $b_{log} = -0.64$, Wald $\chi^2$ ($n = 52$) $= 4.08$, $p = .043$, Odds Ratio = 0.94.[4] The correlation between trait self-control and which test participants chose was $r = -.290$. Overall, 54% of participants chose the standard version of the test and 46% chose the stylized version. This indicates that the stylized version of the test was sufficiently attractive to participants despite the disadvantage it gave them concerning the intelligence test. Participants rated their level of intelligence as fairly important ($M = 84.36$, SD = 14.66). The main finding was that people high in trait self-control were more likely than those low in trait self-control to choose to work without distraction.

[2] In the interest of disclosure, we note that after completing the Self-Control Scale and before the dependent measure, participants engaged in an ego depletion manipulation. This exploratory aspect of Study 2 was included for hypothesis generation purposes. The ego depletion manipulation did not have a main effect on the dependent variable of this study (nor did the interaction of ego depletion condition and participants' scores on the Self-Control Scale). Given the lack of findings, we do not feature this aspect of the design. The avoidance of temptation seems to be a habit adopted by people high in trait self-control (de Ridder et al., 2012). Such habits are likely invulnerable to depletion effects (for review, see Neal, Wood, & Quinn, 2006). Study 3 did not include a depletion manipulation. Relevant data and a description of the ego-depletion manipulation are available upon request.

[3] Participants' room choice was unrelated to their age ($r = .07$, $p = .68$) and gender ($r = .18$, $p = .27$).

[4] The same pattern of results was observed without excluding any participants, $b_{log} = -0.60$, Wald $\chi^2 = (n = 53)$ 3.76, $p = .05$, Odds Ratio = 0.94. The excluded participant's score on the trait self-control was 45; for the entire sample the mean trait self-control score was 39.62 (SD = 9.8). The excluded participant chose the stylized version of the test. Participants' choice of which test to take was not significantly related to the degree to which they regarded their level of intelligence as important ($r = .231$, $p = .10$), their age ($r = -.235$, $p = .09$), and their gender ($r = .108$, $p = .45$).

## 6. General discussion

Effective self-control can help people to lead healthy and productive lives. Some people are better at self-control than others, and they enjoy its benefits more. One simple explanation for how this happens is that they simply resist distractions, temptations, and problematic impulses more effectively than others. The present research indicated a different strategy may be at work: People with good self-control proactively avoid those distractions, temptations, and problematic impulses, so that they do not have to resist them as frequently.

Study 1 found that high trait self-control was correlated with self-reported behaviors that would generally prevent problems, such as avoiding tempting situations, avoiding distractions, and choosing friends who seem likely to help one reach one's goals. Studies 2 and 3 provided laboratory tests in which people could choose to work with or without distractions. The distracting option was likely to impair performance but had another cost. Either it required waiting a few minutes (Study 2) or it provided a less visually appealing version of the test (Study 3). In both cases, people with high trait self-control were more likely than others to make the choice that would minimize distractions. In conjunction, the findings from Studies 2 and 3 suggest that trait self-control has a medium size effect on people's choice of whether to work in the presence of distraction (total $n = 91$; Cohen, 1992).

### 6.1. Limitation

We propose that high trait self-control helps people to avoid all manner of temptations and distractions. In Study 1, we found that high trait self-control was associated with engaging in strategies that could minimize a variety of distractions and temptations, however Studies 2 and 3 focused specifically on avoiding a distracting working environment. Future research could address how high trait self-control may be associated with avoiding other types of distractions and temptations (e.g., avoiding high-calorie foods while dieting).

### 6.2. Conclusion

Extensive evidence has now indicated that a person's ability to self-regulate effectively fluctuates as a function of competing demands and limited resources (e.g., Hagger et al., 2010; Hofmann et al., 2012). Failures at self-control can bring a host of aversive, costly consequences. The present findings suggest how some people manage to reduce such costs. Pragmatic use of information about upcoming risks and temptations enables them to make choices that minimize their exposure to situations in which their self-control might fail.

Resisting temptations and distractions may still be an important path to virtue, success, and happiness. Our findings suggest that people with high self-control have a second path, which involves proactive avoidance. One cannot perhaps be immune to distraction and temptation, nor even to ego depletion and other causes of self-control failure, but one can make choices to prevent oneself from suffering adverse consequences. Apparently and perhaps unfortunately, it takes good self-control in order to use the strategy of avoiding temptation and distraction. For those who are able to use it, however, it may be one key ingredient that contributes to the broad range of superior outcomes associated with good self-control.

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