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External Factors that Influence Self-Control

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Abstract. Self-control is a process that helps people pursue their long-term goals even while surrounded by temptations. This article will present four self-control-related models. According to these models, this article will introduce strategies that help people successfully control themselves by changing their situation, attention, and appraisal style to avoid failure. However, some of the strategies introduced in this article only have a theoretical base and lack empirical evidence. Such strategies are ideal candidates for potential future research.

Keywords: self-control, model, environment, social psychology

1. Introduction

In our modern society, people are constantly dealing with a struggle between short-term temptation and long-term goals. When people have to choose between a long-term, high-return goal and a short-term, low-return goal, anyone who wants to maximize their interest will choose to control themselves in order to achieve the long-term, high-return goal. However, the temptation of low-return, immediate satisfaction can seduce people into giving up their long-term goals. This process of trying to control oneself in order to pursue a long-term goal while actively resisting engaging in another activity that can provide immediate feedback is called self-control (Kotabe & Hofmann, 2015). Because it is activated quite frequently, most people tend to believe that they thoroughly understand the self-control mechanism. However, when most people analyze the process of self-control, they often pay too much attention to the individual who is in control (Dewitte, 2013). Furthermore, even the word "self-control" implies that individuals implement this control process all by themselves. Therefore, once a person fails to control themselves, the people around them, and even the person themselves, will often blame their self-control capacity. However, an individual's ability to control themselves might not play such a definite role in mechanism of self-control (Duckworth et al., 2016).

Here is an example that could illustrate why an individual's capability is not the only element that determines whether or not they will fail to control themselves. Imagine two individuals, Peter and Jackson, who are addicted to cigarettes. Both of whom want to quit smoking. Nevertheless, they are living in different environments. Peter works in a company that requires him to constantly interact with his coworkers, most of whom have their own smoking habits. Thus, in addition to dealing with withdrawal symptoms, Peter also wants to smoke every time he watches his coworkers smoke. Furthermore, his job is stressful and he is exhausted every day after work. As a result, he feels like he does not have the drive necessary to resist smoking after a full day of work. Sometimes, he even temporarily forgets that he wants to quit smoking, since he is too tired to focus on any goals after an entire day of intense work. On the contrary, Jackson's job is not stressful and does not require him to interact with other people. Thus, Jackson's desire to smoke is caused only by withdrawal symptoms. In addition, since his work is not very stressful, he typically has enough energy to actively resist the desire to smoke. Eventually, Peter fails to stop smoking, while Jackson successfully quits. Everyone around them told Peter to regard Jackson as his exemplar; however, if Jackson were in the same situation as Peter, he may also have failed to quit smoking. Likewise, Peter would also have a higher possibility of quitting successfully if he had a less stressful job and worked in an environment in which he encountered less temptation.

As this example illustrates, different situations can partially determine the difficulty that people experience when trying to control themselves. Hence, to avoid failure when pursuing our long-term goals, it is important to manipulate external factors. Luckily, there are multiple models for doing

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just that. By analyzing and summarizing those models, we can take away some basic strategies to avoid self-control failure by learning how to manipulate external factors.

2. Four Basic Models of Self-Control

To analyze the external factors that influence the mechanisms of self-control, as opposed to purely internal factors, such as willpower, the first step is for us to become more familiar with the mechanisms of self-control. At present, there are four mainstream models that explain self-control. Even though these four models have some differences between them, they can still interact with each other and be used to glean a comprehensive understanding of self-control.

2.1 Self-Control Limited-Resource Model

The limited-resource model of self-control is based on one of the primary theories explaining the self-control mechanisms. According to Baumeister and his coworkers, self-control is similar to a muscle depends on limited resources and energy (1998). In addition, this theory is also supported by Gailliot and Baumeister's neurological experiment. In this experiment, the researchers determined that people's blood glucose levels would decrease after they engaged in a task that required self-control. Furthermore, Denson and his coworkers found that, in self-control-related tasks, after consuming glucose, people could return to peak performance after being exhausted (Gailliot & Baumeister, 2007). As a result, this mainstream theory tends to regard self-control as another kind of muscle with limited strength. Once people run out of that strength, they experience self-control failure, also known as ego depletion (Muraven et al., 1998).

The theory of ego depletion can explain various commonly experienced phenomena. For instance, Vohs and her coworkers supported this theory by conducting an experiment in which they asked participants to watch a video that could arouse their emotions and then asked them not to express a specific emotion. In contrast, participants in a control group were asked to watch the same video, but were not asked to control their emotions. As a result, the participants in the treatment group had a higher possibility of experiencing self-control failure than those in the control group (Vohs & Heatherton, 2000). In this experiment, participants demonstrated a clear pattern of exhaustion, similar to how people who have just engaged in exercise will perform worse when performing additional physical work. These results can be explained by the ego depletion theory. Hence, the ego depletion theory is widely accepted since it can explain many phenomena and there are various experiments supporting it.

2.2 Self-Control Priority Model

The theory of ego depletion is broadly accepted, but still has some unsolved aspects. For example, researchers cannot explain why ego depletion diminishes or even vanishes when additional motivation is provided. Therefore, there are alternate models that try to explain the self-control mechanisms in other ways. The priority model of self-control depletion is a great example. In support of this model, Inzlicht and his coworkers proposed that the reason people fail to control themselves when completing a long-term, high-return activity and instead try to engage in activities that provide them with immediate satisfaction is not necessarily due to a lack of control. They claim that the reason people experience self-control failure is because, as the time in which they need to control themselves increases, they become increasingly tired (Inzlicht et al., 2014). This feeling of exhaustion increases people’s desire to engage in other activities that can provide them with immediate positive stimulus (Hofmann, 2012). This phenomenon would increase the cost of continuing to pursue long-term, high-return goals, since people would need to exert more effort to repress their desire for immediate satisfaction. At the same time, the increased desire would make the satisfaction of giving up the current task even more prominent (Hofmann, 2012). This would further boost people’s desire to engage in activities that they "want to do" while deprioritizing the

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activities that they "should do". Once the priority of engaging in activities that people "want to do" exceeds the priority of engaging in activities that people "should do", self-control failure will occur.

In that case, the self-control priority model points out that self-control is more similar to stamina than muscle. People will not completely run out of stamina during a marathon before they hurt their bodies, but people will feel as though it is increasingly hard to continue running. They will keep running until a certain point at which the desire to rest exceeds the desire to secure a better record. However, if someone tells them that they will receive an extra monetary reward if they keep running, most people will continue since the priority of running will, once again, exceed the priority of resting. To offer another example, most students and employees will, at some point, experience what it is like to miss a deadline. When people continuously works on an assignment or project for several hours, they may experience extreme fatigue and ego depletion. As a result, they will be more likely to choose to do some entertaining activities for immediate satisfaction. However, in that very moment, if the individual is informed that the deadline is not tomorrow, but in a few hours instead, that person will be given a new motivation since the unpleasant consequence of engaging in an entertainment activity suddenly changed from “may reduce the quality of the assignment” to “the assignment will definitely be late”. In addition, the benefit of continuing to work is increased since doing so can allow the person in question to avoid that unpleasant consequence. As a result, the priority of working exceeds the priority of getting immediate satisfaction, which leads the person to control themselves and keep pursuing their long-term goal.

2.3 Self-Control Theory Model

Thus far, two basic models of the self-control mechanism have been introduced. These two models interpret the self-control mechanism and rationale of self-control failure differently. In the following paragraph, another model will be introduced, and this model can cooperate with both of the models that have previously been introduced.

While almost all self-control-related theories tend to use abstract metaphors like "muscle" or "resource" to describe the self-control mechanism, this model that proposes some terminology to more specifically describe every section of the self-control process. According to Kotabe and Hofmann, there are eight terms defined in this model: desire, higher-order goal, D-G conflict, control motivation, control capacity, control effort, and enactment constraints. Kotabe and Hofmann define “desire” as a kind of driving force that leads people to a stimulus that provides immediate reward. A “high-order goal” is a goal that people intentionally pursue because of an expected benefit. A “desire-goal conflict” (D-G conflict) refers to an instance in which people choose to pursue their high-order goal, but are still tempted by their desires. “Control motivation” is a type of motivation that leads people to wield self-control to pursue their goals. “Control capacity” refers to people's overall potential ability to control themselves. “Control effort” refers to how much mental energy people are actually investing in the self-control process. Finally, “enactment strains” refer to any environmental elements that constrain people from wielding their control capacity (2015). In this model, the strength of one’s control motivation and control capacity determine one’s overall self-control effort. More control motivation or better control capacity means more control effort. On the other hand, the strength of one’s D-G conflict and high-order goal can facilitate or inhibit desire. If a person’s desire is more intense than the strength of their self-control effort, they will experience self-control failure (Kotabe & Hofmann, 2015).

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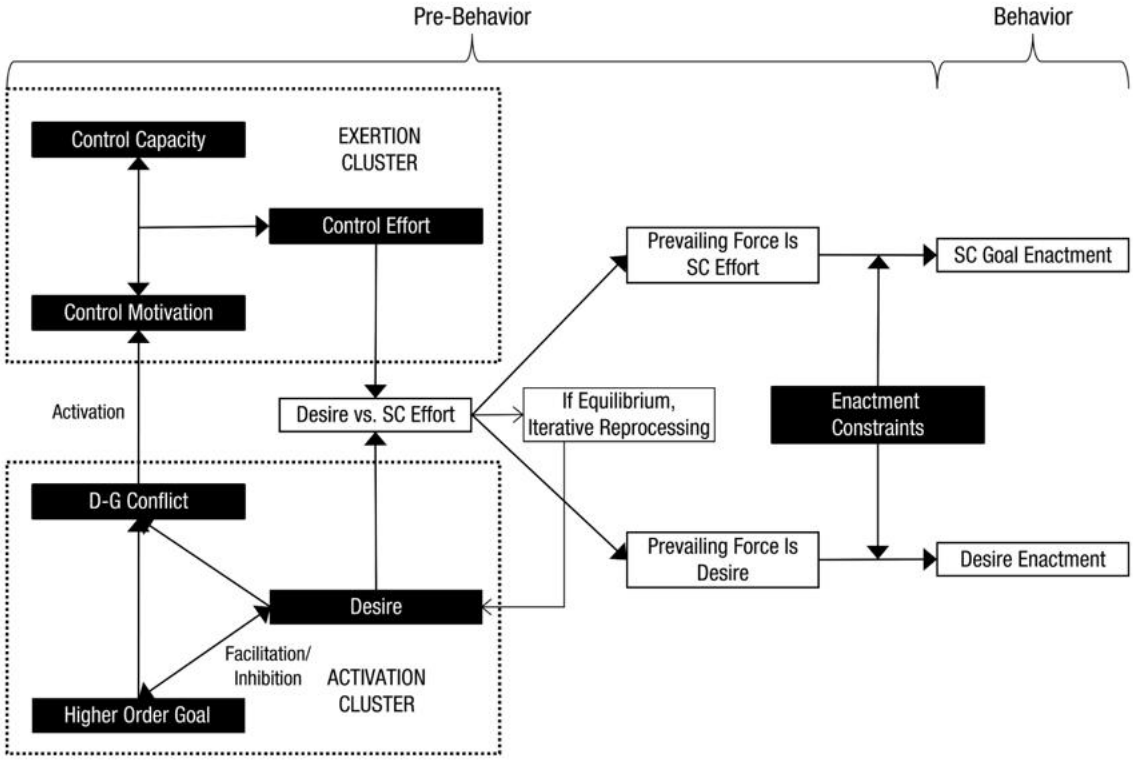

Figure 1. According to Kotabe and Hoffman's self-control model, whether people can successfully control themselves is determined by control capacity, control motivation, D-G conflict, and high-order goal. This figure has been reproduced from the work of Kotabe & Hoffman (2015).

According to those definitions, Kotabe and his coworkers stated that there are basically two kinds of self-control failures: conflict-based failure and control-effort-based failure. Conflict-based failure occurs when people fail to control themselves because they fail to recognize a conflict. Thus, they experience self-control failure before even wielding their self-control function (Kotabe & Hofmann, 2015). The reason for this could be that the desire to engage in immediate satisfaction is too strong. In addition, people's working memory is a limited resource that only allows us to analyze certain information. As a result, a strong desire will cause people to neglect their high-order goals and eventually lead to self-control failure (Halford et al., 2007). For example, when a person sees a donut while they are dieting and very hungry, the strong desire to eat the donut leads to intrusive thoughts that force them to think about things like "what would that donut taste like" (Kavanagh et al., 2005). With their thoughts preoccupied, they completely forget about why they are dieting in the first place. In other words, they forget their high-order goal. This will make it more likely that they will fail to control themselves before they even start to resist (Muraven et al., 2003).

The other form of self-control failure is control-effort-based failure. When it comes to control-effort-based failure, people successfully recognize the conflict between their goal and their desire, but do not have the ability or motivation to control themselves (Kotabe & Hofmann, 2015). People may experience this type of failure while working continuously for a long period of time. In the beginning, they may not feel tired, but as the amount of time working increases, controlling themselves becomes increasingly harder until they do not have enough energy to do so anymore. However, if people receive extra control motivation, they can continue working for an extra period of time because the control motivation will determine their control effort (Muraven et al., 2003).

From the aforementioned three models, it is easy to conclude that biological self-control capability only partially determines whether people can successfully control themselves while pursuing their high-order goals. Clearly, environmental elements also play a critical role in the self-control process. This is because the environment determines the extent of one's motivation, the extent of one's temptations, and lots of elements could lead to self-control failure. In conclusion,

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repeatedly engaging in an activity that requires self-control could be a way to increase people's self-control capability and reduce self-control failure (Muraven, 2010). However, manipulating the environment to reduce self-control failure is also a valuable strategy that can potentially help people wield their self-control capability more effectively (Duckworth et al., 2016).

2.4 Self-Control Process Model

In addition to the aforementioned models, there is one more model that explains how the self-control mechanism is processed. In this model, people go through four steps to control themselves. These steps are situation, attention, appraisal, and response. First, people expose themselves to a given situation. Then, some stimuli, like a desire-related event or cue in that situation will draw people's attention. After that, people will appraise the situation. Consequently, people will respond to the stimulus, and this response will determine whether or not they have successfully controlled themselves or not (Duckworth et al., 2016). In those four steps, some researchers claim that the earlier we can intervene in this process, the higher the chance we have to successfully prevent self-control failure (Duckworth et al., 2016).

3. How to Avoid Self-Control Failure by Changing One's Situation, Attention, and Appraisal Style

The previous sections introduced three self-control models. According to the self-control process model, there are three external factors that we can change: situation, attention, and appraisal. In the following section, we will analyze how people can avoid self-control failure by changing those external factors.

3.1 Avoid Self-Control Failure by Changing Your Situation

The first external factor that people can change is their situation. A good situation and environment can help people focus on their high-order goals and keep exposure to temptations to a minimum. Thus, less effort will be required to make people successfully control themselves. In order to change the situation people are exposed to, there are two strategies: "choose environment" or "manipulate environment". Both of these strategies encourage people to avoid exposing themselves to cues that will trigger or enhance their desire to engage in activities that provide immediate satisfaction and inhibit them from achieving their long-term goals. Multiple experiments have been conducted that support the practicality of this strategy (Duckworth et al., 2016).

For instance, if a person is addicted to alcohol and wants to stop drinking, they must exhibit self-control. Nevertheless, since they cannot improve their control capacity in the short term, the best way to avoid self-control failure is to decrease their desire to drink. In other words, they must ensure that their long-term goal is a higher priority in the D-G conflict. Some researchers have supported that, if such a person is exposed to an environment in which the people around them are drinking, it will drastically increase their desire to drink (Cooney et al., 1987). Furthermore, in addition to watching people engage in behaviors that they themselves want to engage in, watching people engage in behaviors that are merely related to their desire will also increase said desire. For example, watching another person pick up a pack of cigarettes will increase a smoker's desire to smoke (Detand et al., 2017). Wisely choosing an environment that allows one to avoid receiving desired-behavior-related cues is important because those stimuli can increase one's desire, which can boost one's likelihood of engaging in a desire-fulfilling activity (Kotabe & Hofmann, 2015).

With that said, sometimes, we cannot choose our environment. For example, we have to live in our house and we have to work in a specific place. In those kinds of situations, manipulating the environment would be a better choice. For instance, people who are dieting could choose to put high-calorie options out of sight to prevent their appetites from being triggered or enhanced (Papies et al., 2018). Likewise, people who are trying to focus their attention on work can put their phones away to decrease their desire to play around on their phones.

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Manipulating or choosing one's environment to avoid exposing oneself to a situation that could trigger or enhance desires is often underestimated, even though this approach has already been indicated to be practical by multiple experiments (Duckworth et al., 2016). This is because the process of actively forcing oneself not to engage in a certain behavior is noticeable. In contrast, if people successfully choose to change or manipulate their environment so they do not experience any temptation to chase immediate satisfaction, it will not be as obvious that they actively put in effort to control themselves (Fujita, 2011). In summary, one's environment is critical when it comes to the reasons for self-control failure or success, but most people pay too little attention to this factor.

3.2 Avoid Self-Control Failure by Changing Your Attention

After people have done everything they can to avoid self-control failure on a situational level, the next external factor they can manipulate is their attention. When people are exposed to certain situations, they intuitively restrict themselves by avoiding paying attention to temptations as they try to control themselves. For instance, people who are dieting try to control themselves by not paying attention to high-calorie food when high-calorie food is around them. However, an experiment has indicated this strategy to be ineffective due to the ironic process theory. The ironic process theory explains that, when people are cognitively loaded, their desire to control their thoughts will actually have an opposite influence on their self-control process and the researcher use an experiment to support this theory (Wegner et al., 1993). In this experiment, participants ate the same amount of food regardless of whether they actively tried to restrain themselves or not. Furthermore, the study found that if participants were paying attention to restrain themselves and were distracted, they would eat even more than the participants who were not trying to restrain themselves. At the same time, the researchers also determined that, regardless of whether people were actively restraining themselves or not, people always tend to eat more when they are not paying attention to how much they have eaten (Boon et al., 2002). This phenomenon could be explained by self-control theory. According to the self-control theory, conflict-based failure is due to people neglecting their D-G conflict because limited working memory is used to process some other stimulus (Kotabe & Hofmann, 2015). Therefore, making people less distracted during the self-control process is important. To reach that goal, some strategies could be used to bring people's attention back to the specific temptation at hand as well as the overall self-control process. One of the practical ways to force people to pay attention to their D-G conflict is by making people notice their behaviors, especially those behaviors leading to self-control failure.

Geier and his coworker reported an experiment to support this notion. In this experiment, both the control and treatment groups were asked to eat chips from a tube while watching a movie. The participants from the control group ate normal chips, while the participants from the treatment group ate one red chip for every five chips. As a result, the statistical data showed that the participants in the treatment group ate an estimated 50% fewer chips than those in the control group. In addition, the researchers found that the participants in the treatment group tended to stop eating upon reaching the red chip, which signified multiples of five (Geier et al., 2011).

According to this experiment, it's reasonable to conclude that the red chip served as a cue that reminded the participants of how many chips they had eaten. In other words, the red chips forced the participants to remain cognizant of their D-G conflict (Geier et al., 2011). Thus, similar strategies can be utilized. For example, when dieting, people should buy multiple small packages instead of one big package, so they will be reminded every time they finish a small package. In the same way, people who try to focus on their work and avoid checking their phone occasionally should put their phone far away so that every time they check their phone, they will realize it. In conclusion, the strategy of manipulating people's attention to temptation, self-control failure, and D-G conflict is a pragmatic way of preventing self-control failure.

Similarly, Kotabe and Hofmann claim that too much desire can make people neglect their D-G conflict or even lack the cognitive resources to pursue their goals. Hence, self-control failure could

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be prevented by eliminating or reducing one's desire (2015). Van Dillen and her coworkers suggest that the desire elicited by temptation can be reduced or even completely eliminated when people are cognitively loaded (Van Dillen et al., 2013). In other words, when people are paying attention to their task and preoccupied with their goal, temptations will not be as attractive to them as they used to be. Hence, if there is a strategy that could potentially reinforce people's attention to pursuing their long-term goal, it could be a great way to avoid self-control failure. In order to achieve that objective, flow theory could be guidance. Flow describes a mental state, in which an individual is completely focused on their task. People will not have any external thoughts, will not be distracted by anything, and will even feel as though time is being distorted since they are so preoccupied with the task that they lose track of time (Csikszentmihalyi, 1988). In order to make an individual experience this mental state, their goal must have three essential attributes. First of all, the goal has to match the individual's capacity. If the goal is too hard to achieve, it will make the individual frustrated. In contrast, if the goal is too easy to achieve, it will make the individual bored. Those two emotions will undermine people's intrinsic motivation and further reduce their involvement in the task (Ryan & Deci, 2000). The second essential attribute is that the goal must be clear. This means individuals should have a clear goal in mind and know exactly what they have to do to achieve it. The final necessary attribute is immediate feedback, which will allow individuals who are trying to accomplish a goal to consistently know they are taking the correct actions (Csikszentmihalyi, 1988).

For the purpose of making people feel occupied with their goal in order to ultimately accomplish it, the goal must have those attributes. For instance, if a person is trying to write an article, instead of setting a goal that is too hard (like writing two thousand words per hour) or a goal that is too easy (like writing one hundred words per hour), they should give themselves a goal like write three to eight hundreds of words per hour. Therefore, they will not be frustrated by failure since losing writing three to eight hundred of words per hour is not too hard to achieve, and they would put in the effort to accomplish the goal since it is not too easy. On the other hand, a detailed schedule would be indispensable. This will allow people to know what they should do at each moment, which will make them cognitively overloaded and potential distractions (Van Dillen et al., 2013). Finally, there must be immediate feedback to help people avoid feelings of uncertainty. Therefore, when writing an essay, contacting one's professor and receiving feedback is necessary (Csikszentmihalyi, 1988). Those strategies could minimize people's negative feelings like frustration, boredom, or uncertainty to help people achieve flow states. Once people have a task that fulfills those three requirements, there is a higher chance that they will be completely focused on completing said task. According to Van Dillen and her coworker, this could lead people to not have enough cognitive resources left to analyze any potential temptations, which would make those temptations less desirable in the moment (Van Dillen et al., 2013). Ultimately, this approach will prevent conflict-based self-control failure.

In summary, attention is a crucial factor that influences whether or not people can successfully control themselves. Having too much desire or paying too little attention to their D-G conflict are two main reasons why people lose control. Therefore, if people are trying to actively resist a certain temptation, they should use situational cues to remind them of their self-control-failure related behaviors that are caused by the ironic process. On the other hand, if people can choose their task, they should make it easier to engaged in. If people are completely engaged in their task, they will have fewer cognitive resources left to process any potential temptations. As a result, those temptations will arouse less desire in those individuals.

4. Behaviorism strategies to avoid self-control failure

Although researchers have not thought about the connection between behaviorist approaches and self-control, there are many reasons to believe that such approaches could be beneficial to individuals seeking to improve their self-control. Behaviorist approaches focus on changing an

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organism's behavior through the manipulation of rewards and punishments. Animals, including humans, tend to engage in behaviors more frequently if those behaviors are associated with positive outcomes. Furthermore, they reduce their frequency of engaging in certain behaviors if those behaviors are associated with punishment. As a result, it is reasonable to conclude that such punishments or rewards would provide animals with the motivation to change their behavior. After all, control motivation is an essential factor in self-control theory (Kotabe & Hofmann, 2015). Thus, if people can acquire extra control motivation from behavioral psychology technic, such a strategy also has the potential to help people avoid self-control failure.

In the world of behavioral psychology, there are basically four kinds of reinforcements or punishments that can motivate a creature to change its behavior. Those four types of reinforcement and punishment are: positive reinforcement, positive punishment, negative reinforcement, and negative punishment (Ferster & Skinner, 1957).

Positive reinforcement is when people receive a reward after completing a certain behavior. When we complete a certain task, most of the time, we are eventually going to get a reward. However, according to the delay discounting theory, once a reward is delayed, its attractiveness is reduced (Kurth-Nelson et al., 2012). This is the reason why people cognitively understand that there are more valuable rewards waiting for them if they continue working on the task. Nevertheless, they are still more motivated to engage in a behavior that can lead to immediate satisfaction. In that case, people could try to provide some immediate rewards to themselves after successfully controlling themselves long enough to achieve the task.

Positive reinforcement is the most straightforward way to provide people with a motivational reward. For instance, people who are prepared for a test can reward themselves by watching a good movie only after they finish their daily study plan on time. If they cannot finish their plan on time, there will not be enough time for them to watch the movie. In this scenario, the movie is an immediate form of positive reinforcement that can provide extra control motivation to help people increase their control effort. If people can focus their attention on this reward, they will receive extra motivation that is not influenced by delaying the discounting effect.

Similarly, people can also use negative reinforcement to increase their control motivation. Negative reinforcement occurs when people get rid of an adverse feeling or stimulus after they complete a specific task (Skinner & Ferster, 1957). A student who is preparing for a future exam is a classic example. Some students feel anxiety before taking an exam, but this anxiety can be reduced if they spend enough time preparing for the exam. Thus, if those students focus their attention on their anxiety and use those feelings to their benefit instead of trying to avoid them, a reduction in anxiety could be the potential reward. This reward can provide extra control motivation and further enhance a person's control effort.

In addition to reinforcement, punishment can also be a powerful tool to increase one's control motivation. Positive punishment means people are punished only when they engage in a certain inappropriate behavior or fail to successfully complete their task. One of the most popular instances in which to use positive punishment is while dieting. For example, a person can make a commitment or announcement that they are going to lose weight. As a result, peer pressure can serve as an extra motivation to push that person to accomplish that goal (Bonein & Denant-Boèmont, 2015). Similarly, some people who are dieting will feel guilty if they break their plan and eat too much high-calorie food. Therefore, by paying attention to their guilt and utilizing it as a punishment, they will have more control and motivation to diet, while seeking to avoid this unpleasant guilty feeling.

Negative punishment is the final method of increasing people's control motivation. Negative punishment prevents people from receiving positive stimuli or experiencing positive feelings. Similar to how some students are anxious while preparing for an exam until they review the material for a long time, some students are confident until they stop reviewing or fail to stick to their established plan. For the students who stop feeling confident once they stop reviewing, the experience of feeling "not confident" would be a negative punishment.

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Students who are motivated by those immediate emotions, sometimes, control themselves to avoid feelings of anxiety and retain a feeling of confidence. In such a situation, they are not only motivated by their long-term goal, but by their immediate satisfaction. This additional motivation is not influenced by the delay discounting. Thus, it can potentially enhance people's control effort and further prevent self-control failure.

4.1 Avoid Self-Control Failure by Changing Your Appraisal

According to the process model of self-control, the next step for improving one's self-control, after manipulating one's attention, is manipulating one's appraisal style (Duckworth et al., 2016). Even if people are paying attention to the same temptation and situation, different individuals will interpret that same temptation and situation differently. Generally, there are two construal styles: high-level construal and low-level construal. High-level construal refers to when people try to explain a situation in a general and abstract way. The most common high-level-construal-related question is "why". In contrast, low-level construal refers to when people try to explain a situation in a specific and detailed way. The most common low-level-construal-related question is "how" (Freitas et al., 2004). Even though these two construal levels are both fundamental ways of construing a situation, they do not influence the self-control process in the same way. Various experiments have shown that people who use high-level construal will have fewer opportunities to experience self-control failure compared to people who use low-level construal (Trope et al., 2006). For example, two representative experiments have shown us that high-level construal can enhance people's self-control.

In the first experiment, Freitas and his coworker made one group of participants consider "why you do the things you do" and made another group consider "how you do the things you do". Afterwards, the researchers asked both groups to evaluate an immediate reward and a delayed reward. Ultimately, they learned that people evaluate immediate rewards as less valuable after they considering "why you do the things you do" rather than "how you do the things you do" (2004).

In the second experiment, the researchers asked participants to perform a similar procedure as in the first experiment. However, instead of thinking about experiment-related questions, the participants were required to consider unrelated questions like: "why do I need to maintain good relationships with others" and "how should I keep good relationships with others". After answering those questions, the participants were asked to grip a detector for as long as possible. Ultimately, the researchers discovered that the participants who engaged with questions starting with "why" tended to grip the detector longer (Muraven et al., 1998). Thanks to the results of this experiment, researchers understand that, as long as people engage in high-level construal, no matter what they construe about, it can enhance their self-control.

With this in mind, engaging in high-level construal is a pragmatic way to avoid self-control failure. The most direct way to induce people to engaging in high-level construal is to imitate the process from the first experiment. People can expose themselves to a circumstance that could constantly make them wonder, "why do I do this?" For instance, in some Chinese high schools, teachers post slogans on the wall to remind students why they are learning in order to enhance the student's self-control and lead them to put more effort into studying for the final exam. Given what we know, this could work according to the construal level theory, because such motivational signs may prompt students to engage in high-level construal of why they are learning (e.g., "I am learning for the brighter future") rather than low-level construal (e.g., "I am going to do the mock test again to get better grade.") However, there is no experimental evidence to confirm this hypothesis, which is why future research would be beneficial.

Using a slogan to change people's construal level or remind people to use high-level construal is one way to change people's appraisal style via external factors. Priming is a similar approach to accomplish this goal. Priming refers to the fact that certain external stimuli can influence people's mental states and change their reaction toward following stimulus (Weingarten, 2016).

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For example, some schools choose to post an exemplar's image or story on the wall to encourage students to imitate that individual. There is also an experiment that suggests that, after people have completed a self-control-consuming task, reading a story about an individual who eventually achieved their goal through hard work will prime people to exhibit more self-control. In contrast, this experiment also showed that the exemplar story only works for people who are exhausted. If a person has not engaged in any self-control-related task and is not exhausted, those examples may actually increase their possibility of experiencing self-control failure (Martijn, 2006). One of the interpretations of this result is that people will compare themselves to the exemplar. Hence, if people are not exhausted, they will find the differences between themselves and the exemplar. As a result, they will fail to imitate the exemplar. Furthermore, the exemplar might even say something like, "I am not such a go-getter." On the contrary, if people are exhausted, they will not have enough cognitive resources to manage such complicated analytical processes. This will lead them to be primed by the exemplar's story and imitate that individual (Martijn, 2006). Therefore, it is reasonable to deduct that a slogan may have a similar effect, which only works for people who are already exhausted and do not have enough cognitive resources to resist. In conclusion, if people can expose themselves to an environment that uses a slogan or exemplar's image to prime themselves when they are exhausted, it will enhance their self-control.

5. Conclusion

External factors and one's environment play a significant role in self-control. Blaming self-control failure solely on personal control capability is unjustified as it can be caused by various external reasons such as exposure to excessive temptations, lack of motivation, lack of reminders for long-term goals, tiredness, and appraisal style. To prevent self-control failure, in addition to enhancing control ability, changing the environment and external factors is also crucial for successful self-control.

The mainstream perspective likes to emphasize the importance of hard work, because compared to other factors such as environment, talent, and fortune, self-control seems to be one of the relatively few elements that under people's control. However, this perspective drastically ignores the relationship between external factors and self-control effort. Once people believe that they have full responsibility for controlling themselves, they are unreasonably harsh in the face of self-control failure. In addition, if they try to avoid self-control failure from occurring in the future, they will only focus on improving their self-control capacity and neglect the reality of situations that create too much temptation or offer too little motivation. Thus, this article has encouraged people should put more focus on external factors while they try to analyze self-control failure and prevent self-control failure from happening in the future.

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