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Self-control failure scenarios in daily life: Developing a taxonomy of goals and temptations

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Abstract

Our aim was to develop a taxonomy of commonly experienced goals and temptations. We expected to find evidence of interpersonal self-control challenges and avoidance temptations (e.g., avoid a difficult conversation), as these are anecdotally frequent but under-represented in the psychological literature. In Study 1, we used qualitative coding to develop a taxonomy after asking people to describe a goal and competing temptation in four recent personal situations involving self-control failure. From these narrative descriptions, we identified categories of goals and temptations and then coded each scenario. We then verified the frequency of these goal and temptation categories (Study 2). Findings revealed many instances of interpersonal self-control challenges and some evidence of avoidance temptations, as well as the common phenomenon of being tempted to “not do the goal.” We discuss the variability in how people describe their goals in terms of approach and avoidance framing with the intention of outlining avenues for future research on commonly experienced self-control scenarios.

Key words: Self-control; Goal; Temptation; Approach; Avoidance

Self-control challenges involve conflicting desires (Fujita, 2011). A short-term immediate desire which promise immediate hedonic pleasure (e.g., eating a rich chocolate cake) conflicts with a concurrent yet incompatible long-term desire (e.g., losing weight). Choosing the immediate desire implies “giving in” to the temptation and failing at self-control, whereas successfully using self-control involves choosing the long-term goal, an option that provides less momentary pleasure but is ultimately more consistent with goal achievement (Baumeister, 2016; Baumeister, Heatherton, & Tice, 1994).

In what situations do self-control challenges commonly occur? Experimental studies frequently use what are thought to be common self-control conflicts, often with the goal of understanding the factors contribute to self-control failure. For example, researchers measure the percentage of participants who choose an unhealthy food temptation versus a healthy snack when in a negative emotional state (Hofmann, Rauch & Gawronski, 2007), the amount of alcohol consumed following a task designed to reduce self-control strength (Muraven, Collins, & Neinhuis) or the effect of trait self-control on regulation of sexual thoughts following depletion (Galliot & Baumeister, 2007). These studies suggest that food, alcohol, and sex are temptations, consistent with the notion that people regularly seek psychotherapy to learn strategies for managing these kinds of desires. Yet, it is unclear the extent to which the types of self-control challenges modeled in laboratory research are indicative of the types of self-control conflicts that people encounter in their everyday lives. Understanding everyday self-control challenges is important because the ability to help individuals resist temptation—to achieve their long-term goals—hinges on an accurate assessment of ecologically valid desires and temptations.

Temptations in Daily Life

One recent study went beyond laboratory models of temptation by using experience sampling to assess the frequency and intensity of desires people experience in their everyday lives (Hofmann, Vohs, & Baumeister, 2012). Researchers developed a list of desires (e.g., sleep, food) and their respective conflicting goals (e.g., productivity, weight loss) and assessed both by repeatedly prompting participants throughout the day via mobile devices. Results included estimates of the most often reported desires (e.g., eating, drinking non-alcoholic beverages, sleeping) and noted that participants frequently reported their desires conflicted with health-related goals (e.g., healthy eating, bodily fitness), abstinence-restraint goals (e.g., ending an addiction, saving money), achievement-related goals (e.g., academic, professional), social goals (e.g., socializing, moral integrity), and time-use goals (e.g., using time efficiently, getting things done). This study provided a useful initial pathway toward understanding the balance of goals and desires people experience. However, because the researchers generated the list of potential desires and personal goals (which we recognize is ideal for experience sampling), the question remains if the researchers adequately captured the scope of desires and motivational conflicts that people actually experience in their everyday lives. In particular, we propose two self-control failure scenarios that we have not seen adequately modeled in the self-control literature (and which are not present in Hofmann et al., 2012). The proposed “missing” scenarios stem from our experiences as clinicians where we have watched psychotherapy clients struggle with self-control in daily life in the domains of (1) interpersonal situations and (2) avoidance temptations.

Interpersonal Self-Control

Anecdotally, people certainly experience challenges with self-control in interpersonal situations, such as refraining from yelling at a spouse who left dirty dishes in the sink, or trying to muster up the courage to ask for a raise. Given that we are social creatures and interact with

others a great majority of the time, it seems certain that interpersonal goals (e.g., maintaining a relationship) and temptations (e.g., lashing out at a coworker) must exist within the framework of self-control failure. Indeed, any therapist who has worked with couples can attest to seeing these self-control failures play out in therapy sessions. Moreover, empirical research suggests that interactions with others often involve self-control (Buhrmester, Furman, Wittenberg, & Reis, 1988; Dixon-Gordon, Bernecker & Christensen, 2015; Halford et al., 2007; Netzer, Van Kleef & Tamir, 2015; Zaki & Williams, 2013). For example, people were more likely to impulsively punish potential dating partners by administering more hot sauce to partners who rejected them, compared to partners who did not reject them (Ayduk, Gyurak, & Luerssen, 2008). In sum, self-control challenges that occur in interpersonal settings are clearly visible in our everyday lives, and further knowledge about interpersonal conflicts (both interpersonal goals and temptations in the interpersonal sphere) would facilitate inclusion of interpersonal self-control situations in both laboratory and future experience sampling work.

Avoidance Temptations

Another novel area of self-control failure situations that has been overlooked by the extant research is in the realm of “avoidance temptations.” Typically, temptations are construed as objects, activities or behaviors that people want to obtain or engage in (e.g., cigarettes, unhealthy foods, sleep; Hofmann, Vohs et al., 2012), which “lure” people away from their longer-term goals in favor of immediate pleasure. Relatedly, most goals tend to be things people want to achieve, such as making new friends, acing a test, or establishing a regular exercise routine. People also clearly have avoidance goals; activities people want to *stop* doing, or situations that people want to avoid. Avoidance goals often exemplify motivational conflicts

(Carver & Scheier, 2011; Elliot & Covington, 2001), where the goal to avoid (e.g., the goal of quitting smoking) conflicts with the contrasting temptation to approach (e.g., cigarette craving).

People may also have avoidance *temptations*. Avoidance temptations involve the urge to avoid experiences that are uncomfortable or painful (Tice & Bratlavsky, 2000), when the long-term benefits of *engaging* in that behavior is associated with goal achievement. These kinds of temptations are rarely discussed in the psychological literature (though see Rouse, Ntoumanis, & Duda, 2013) but are anecdotally and clinically apparent. For example, consider the task of asking your boss for a raise you feel you deserve. The goal is to initiate a conversation with your boss, but the temptation is to avoid the discomfort of what could be a difficult or uncomfortable conversation. Avoidance temptations are also consistent with the recent conceptualizations of health behavior procrastination (Kroese & de Ridder, 2016) which is based on theories of academic procrastination (Klingsieck, 2013; Sirois & Pychyl, 2013). Health behavior procrastination occurs when people have an intention to complete a “healthy” but unpleasant task (e.g., call a doctor, exercise) but delay it in favor of something more pleasant (e.g., watching television). In general, avoidance temptations could be construed as temptations in the context of initiatory self-control, which involves initiating behavior toward desired goals (de Ridder, de Boer, Lugtig, Bakker, & van Hooft, 2011). Capturing avoidance temptations in addition to approach temptations could thus result in a more comprehensive picture of self-control failure in daily life.

We recognize that regulatory focus theory suggests that even approach goals can be construed from a preventative standpoint (Higgins, 1997). Consider the goal of making a new friend. Promotion-focused individuals will think about what can be gained from achieving a goal (e.g., the motivation to gain companionship), while a prevention-focused individual is more

likely to focus on the potential consequences associated with a failure to achieve the goal (e.g., the motivation to avoid loneliness). While the goal is the same for both individuals, the way each person envisions success and failure will typically correspond with their regulatory “fit.” Essentially, some individuals view opportunities as situations in which to engage while others are more likely to view situations through an avoidance lens. Despite the theoretical and empirical work on regulatory focus theory (Dholakia, Gopinath, Bagozzi, & Natarajan, 2006; Higgins, 1997), and the idea that people certainly vary in their regulatory focus toward goals, our intention here is to approach goals and temptations from a behavior learning perspective. That is, regardless of the motivation for seeking particular goals, some goals involve engaging in behavior, and some goals involve refraining from behavior (Coats, Janoff-Bulman, & Alpert, 1996). Our prediction was that temptations would show similar patterns—most temptations may be to approach but some are likely to be temptations to avoid.

The Current Studies

In the current project, we first employed qualitative methodology to examine narrative accounts of everyday self-control failures (Study 1). Our goals were to look at major categories of self-control challenges actually experienced by people in their daily lives, with the intention of articulating additional types of self-control dilemmas that are not currently well-addressed by the literature (e.g., interpersonal self-control challenges, avoidance temptations) using a bottom-up approach. In addition, we hoped to validate the list of researcher-generated desires and goals used in prior work (Hofmann et al., 2012). The resulting taxonomy of self-control challenges was then examined quantitatively (Study 2) to validate the categories.

Study 1

Method

Participants. Participants ($n = 236$) were 121 individuals recruited through a psychology subject pool at a large university in the mid-South, and 115 adults from across the US recruited through Amazon Mechanical Turk. Overall, the average age of participants was 26.07 ($SD = 9.36$, Range: 18 to 58), with 55.5% women and 80% White, with residents of 35 US states represented in the data. The sample included 59.3% current college students, and 28% of the sample had completed at least a bachelors degree. The study was completed in early December of 2015 (the time of the study is important because a number of people mentioned Thanksgiving and/or Black Friday in their responses). Seven participants from mTurk indicated they did not live in the US and were not US citizens, so they were excluded from analyses, leaving a total sample size of 229. As expected, the college subject pool sample was younger ($M = 19.60$, $SD = 3.37$) than the mTurk sample ($M = 33.08$, $SD = 8.82$), $t(227) = 15.59$, $p < .001$. There were no significant differences in gender or race across samples, with 56.3% identifying as female and 82% identifying as White.

Procedure. The study protocol was approved by the Institutional Review Board of our university. All materials were completed online. Participants were provided a definition of self-control as “the ability to control one’s thoughts, emotions or behaviors, typically by overcoming an impulse to do something *now* in favor of a longer-term goal.” They were told that we (the researchers) were interested in developing a catalogue of self-control failures. Participants were then given two examples of self-control failures, the first of which included a description of an inhibitory goal (e.g., “I have the goal of losing 10 pounds, and I’m trying to watch my calorie intake”) and an approach temptation (“But, when I went out to dinner with a friend, I ended up having a big piece of pie for dessert.”) The example then clearly articulated the elements of the self-control situation (e.g., “In this case, the goal was losing weight, the temptation was to eat a

high-calorie dessert, and the failure was the choice of the temptation over the goal.”). The other example involved an initiatory goal of increasing a behavior, with an avoidance temptation (e.g., goal of asking boss for a raise, and temptation of procrastination or avoiding a confrontation in favor of doing something more fun like watching videos online). We explicitly included one common scenario (dieting) and one scenario that involved a social interaction in our examples to subtly indicate that interpersonal situations were “allowed” to be discussed in the context of self-control challenges. In addition, the instructions indicated that “It is also possible to have temptations to approach ‘negative’ things (e.g., lash out at someone).” Participants were told that their scenarios did not need to be major life events, but could be either large or small situations associated with self-control that occurred in the last week.

After the instructions, participants were asked to provide four situations involving self-control failure that occurred in the last week. For each they were asked to narratively describe the situation or scenario, including to identify (a) what *would* have been the use of self-control if they had done it (i.e., the long term goal), (b) what the impulse was (i.e., the temptation), and (c) what they actually did. After this initial narrative paragraph, participants were asked to explicitly identify their long term goal, the temptation, and whether or not they attempted to control or resist the temptation (yes or no).

Qualitative Data Analysis. We had 229 participants reporting on 4 situations each. We excluded two participants outright who did not seem to understand the directions, which left 908 possible scenarios to evaluate. We then looked at the individual scenarios. Of these, 21 were deemed uninterpretable because they were not clearly describing a self-control challenge (e.g., “My coach told my team that if we didn’t win the game we would have sprints the next practice”

or “Determine what to have for dinner.” Other excluded scenarios were clearly filler, such as “I do not have anything else to write for you here.” This left us with 887 scenarios to evaluate.

Although we asked about self-control failure situations, we noticed in an initial read-through that some people described situations where they successfully exerted self-control. Thus, we first coded each scenario as either a “success” or “failure” depending on whether the scenario indicated the participant gave in to the temptation (i.e., failed at self-control) or successfully resisted temptation. Any scenario that was unclear whether the person succeeded or failed was coded as unclear.

Our analytic strategy was iterative thematic analysis (Braun & Clarke, 2006), where we evaluated the narrative open-ended responses with particular focus on the initial question that asked participants to describe the self-control situation. We examined temptations and personal goals separately. We developed content themes of temptations and personal goals via initial passes through the data. The code development process for temptations was relatively straightforward, as most scenarios described a clear temptation or desire that got in the way of their personal goals. However, we did find a need for a code of “not do the goal.” This code captured situations when participants indicated they did not have a clear temptation, but had the impulse to avoid engaging in their long term goal or to delay engaging in long term goal related behaviors (for example, see Table 1, Scenario 132).

Table 1. *Example narrative responses to prompts.*

	Describe the situation/scenario, including what would have been use of self-control if you had done it, what your impulse was to do instead, and what you actually did	In the above scenario, specifically identify your long term goal.	In the above scenario, specifically identify your temptation.	Did you try to exert control or resist the temptation? (Note: it's fine if you didn't, please be honest)"	"What contributed to whether or not you tried to exert self-control to resist the temptation?"
Scenario 346	"I made a batch of chocolate chip cookies yesterday and thought to myself I will only eat 2 or 3 of these but they smelled and tasted so good I wound up eating like 6."	"Not eating all the cookies."	"Chocolate, sugar."	"No"	"They tasted too damn good, especially with some sea salt on top, ohhhh, it was the sea salt."
Scenario 291	"I have purposed for a few weeks to talk to my brother about a family issue. I have been putting it off because it might be an uncomfortable conversation and have not yet spoken to him."	"Talk to my brother and attempt to resolve the family issue so we can move on from the situation."	"I am tempted to avoid talking to him because I do not want to feel uncomfortable".	"Yes"	"I tried to resist the urge to avoid the situation because it is important and involves a family member."
Scenario 132	"I chose to cram to study for a test rather than study the week before. Self- control would have been to utilize my free time the week before. My impulse was to not study, and do things which are more enjoyable in my free time. I choose to not study."	"Get an A on the test"	"To do things which are a lot more enjoyable than studying."	"Yes"	"I tried to study, but I would always get distracted."
Scenario 817	"Sometimes I struggle with the temptation of buying unnecessary things. I really just like to shop, but I know i should be saving money. So I try and buy items on sale, or I just ask my mom to buy me things."	"Learn the importance of saving money/budgeting"	"Cute Clothes/food."	"No"	"Its all necessary."

Development of a coding structure for the personal goals turned out to be considerably more difficult due to the variation in which people described their personal goals. Some participants mentioned vague goals that could be better described as values (e.g., the goal to “be healthy” or “be a good person”), and some people mentioned long term goals that represented achievements (e.g., “lose weight” or “get good grades”). In addition to these more distal goals, most people mentioned concrete actions or behaviors (e.g., “exercise 2 hours per day” or “study for my biology test”). Some people mentioned multiple goal levels in the context of one response, such as a behavioral goal of “I have started a every other day exercise project where I take a jog around the neighborhood for approximately 20 minutes” in the context of a long term goal “to lose weight and get in a better state of health.” Prior research has suggested that goals can be framed from concrete actions to more abstract principles (Carver & Scheier, 2011; Scholer & Higgins, 2011). The idea is that the underlying reason or motive for goals is construed differently than the goals themselves (Elliot, 2006). The highest or most abstract level involves motivational concerns (Scholer & Higgins, 2011), motivations (Elliot, 2006), or values (Carver & Scheier, 2011). To account for this, we coded the more abstract motivations (e.g., values and distal achievements) separately from the concrete actions.

After establishing goal and temptation categories, we then attempted to assign each scenario to a distal goal, concrete action, and temptation category. Goals or temptations that were clearly described by the participant but did not fit into the defined categories were coded as “other.” Any personal goal or temptation that was undefined or inadequately described was coded as “not interpretable;” this occurred when participants did not fully describe a situation. For example, “I was supposed to sand my fenders down and apply another coat of paint yesterday” had an identified goal of “Housework” but no identified temptation. If the initial

open-ended description of the scenario was unclear, we used the “identify your long term goal” and “identify your temptation” responses for clarification. For example, one participant said “I told myself I would go to all my classes. Instead I stayed home and skipped most of them.” In this scenario, the participant did not describe a specific temptation, but in the temptation question the person indicated their temptation was “getting more sleep,” so the temptation was coded as “sleep.”

After initial attempts to code the data, the first two authors met to discuss the codes and whether certain categories were infrequently used, and whether any codes overlapped with other codes. In doing so, we refined the coding system, combining some codes (e.g., the separate temptation codes for “pornography” and “physical intimacy” became “sexual pleasure”) and deleting others (e.g., an original temptation code for “proving rightness” was folded into “arguing and criticizing”).

Finally, we recoded the data with our refined coding structure, which ultimately resulted in 17 distal goal categories, 21 concrete action goal categories and 22 temptation categories (e.g., drinking alcohol, eating more than desired, sleeping, etc.), where one of the temptation categories was “not do goal.”

Results

First, we examined the number of people who indicated they successfully exerted self-control. Of the 887 scenarios, 725 (81.74%) depicted self-control failure. Considering we asked explicitly about failures, we were surprised to find that 95 scenarios (10.71%) actually talked

about self-control challenges that were ultimately successful¹. The remaining did not clearly indicate either success or failure.

Personal Goals.

Distal goals. Values and/or distal achievements, which we construed as the ultimate outcomes people were aiming for, and thus the distal goals that were motivating them, were reported in 557 (62.80%) of the scenarios. These included values that are not clearly attainable, such as “be a good person,” a version of “be healthy” (which included healthy eating habits and physical fitness), “knowledge” and “faith” (see Table 2). Others were about establishing habits, such as better managing emotions, or better managing time to be more productive. In addition to values and habits, some people mentioned distal achievements with clear attainable endpoints, such as getting good grades and/or obtaining a degree as indices of academic success, buying some specific object like a new car or a house, improving career outcomes by getting a new job or advancing in a current job, or improving a living situation. Several of the goals were interpersonal in nature, including helping someone else accomplish something, and goals to obtain, sever or maintain relationships with others. The most common distal goals were around financial security (either making or saving money), weight management (either losing or maintaining weight), and academic success. We include the descriptions of these distal goals to be thorough, but this level of goal was not our primary focus in conducting this study.

¹In the service of fully describing self-control challenge situations, we retained all scenarios in subsequent analyses, including those depicting successes (even though those were counter to the instructions). Conclusions do not change in any substantive way by excluding “success” scenarios.

Table 2. *Distal goals/motivators*

Distal Goal Categories	Examples	Count (% of the 557 scenarios that included distal goals)
Be healthy	“Being healthy,” or “Eating healthier,” or “Getting in shape.”	119 (21.37%)
Weight management (lose, maintain)	“Losing 10 pounds,” or “lose 2% body fat.” “Avoid gaining the ‘freshman 15,’” or “remain thin.”	94 (16.88%)
Financial security	“A little extra income,” or “Save money to be more financially secure.”	88 (15.80%)
Academic success	“Getting my masters,” or “Get good grades,” or “Make an A on test.”	83 (14.90%)
Manage relationships (maintain, obtain or sever)	“Have a good relationship.” or “Get to know her, date her, have her be mine” “to no longer have this person in my life.”	40 (7.18%)
Idiographic complete task	“Improve and make Pom squad,” or “Fix my broken leg.”	24 (4.31%)
Emotional management	“Keep my mood stabilized,” or “Don’t let my competitive spirit get the best of me.”	18 (3.23%)
Productivity habits	“Develop good study habits,” or “To be productive, and get things done that need to be done, when they need to be done.”	18 (3.23%)
Improve career	“Getting a better job.”	16 (2.87%)
Improve living situation	“Have a well-kept house,” or “Find another place to live.”	12 (2.15%)
Buy something specific	“I wanted a car,” or “To buy a house.”	10 (1.79%)
Prevent physical illness or complication	“Not die,” or “Avoiding feeling sick,” or “Not get pregnant.”	9 (1.62%)
Help someone else accomplish something	“to help my daughter pursue her education.”	8 (1.44%)
Be a good person	“to become a better person morally.”	6 (1.07%)
Increase knowledge	“More knowledge of what is going on in my town and the world.”	5 (.90%)
Manage others’ perceptions	“I have been trying to show my boss that I am more dedicated.”	4 (.72%)
Keep faith	“To live a clean life and serve GOD in the best way possible.”	3 (.54%)

Notably 60% ($n = 439$) of the 725 self-control failures included articulation of a distal goal. However, 75% ($n = 71$) of the 95 self-control successes articulated a distal goal, $t(508) = 2.42, p = .02$. Almost all of the scenarios included a concrete action goal, so these results are

essentially stating that more of the self-control successes included a distal goal *in addition* to a concrete action goal, when compared to the self-control failures.

Concrete Action Goals. These were behaviors a person either wanted to engage in or avoid in momentary situations; it is this level of goal we were most interested in, as this level of goal most closely translates to behavioral goals that could be assessed via EMA or included in a laboratory study. In total, 840 of the scenarios had a clear concrete action goal, and we coded 21 categories of action goals, which included one category for idiosyncratic behaviors people were trying to increase or decrease that did not fit into any of the other categories ($n = 11$; 1.31% of the codeable scenarios). Examples of these idiosyncratic behaviors included “Grow my beard for 2 months” or “I’m trying to cut back on swearing.”

Most of the goals were clearly behavioral approach goals. For example, the most common approach goal involved wanting to complete work tasks (including both paid work and schoolwork; $n = 158$; 18.81%). Other common approach goals involved engaging in exercise ($n = 108$; 12.86%) and completing household chores ($n = 67$; 7.98%). Less common approach goals included sleeping more ($n = 21$; 2.5%), spending quality time at home instead of choosing to go out ($n = 5$; .56%), helping others (which included doing community service; $n = 6$; .71%), engaging in faith-based activities such as going to church or reading the bible ($n = 4$; .48%), and reading ($n = 4$; .60%).

Several behavioral goals, typically those related to consumption, were behavioral avoidance goals. Namely, reducing or avoiding substances (primarily cigarettes and alcohol; $n = 40$; 4.76%) or reducing or avoiding the *amount* of food consumed ($n = 41$; 4.88%). The latter wasn’t about the type or quality of the food eaten, but about reducing the quantity of food consumed. Finally, we also saw people with goals of wanting to reduce media use, including

phone, internet, and TV ($n = 15$; 1.79%), people wanting to sleep less including trying to decrease naps and/or get out of bed earlier in the morning ($n = 10$; 1.19%) and people wanting to reduce emotional outbursts ($n = 4$; .48%).

The goals we have described so far were clearly approach or avoidance goals. However, in some cases goals were presented as both prevention and promotion goals (Higgins, 1997). For example, the second most common goal category in the entire study (after doing work tasks) was in the realm of choosing foods to eat ($n = 144$; 17.14%). Within this category some people articulated wanting to promote eating healthy foods such as fruits and vegetables (promotion focus; $n = 47$), whereas other people articulated wanting to stay away or prevent themselves from eating “unhealthy” foods or specific foods that were judged as negative such as sugar, soda, or fast food (prevention focus; $n = 97$). Another goal with both promotion and prevention focus was in the domain of “spending money wisely” ($n = 78$; 9.29%), which involved spending less on fast food or what were deemed “unnecessary” items (e.g., “I am not going to eat off campus during the week”) and/or devoting money to “better” choices (e.g., “(e.g., “Saving money to make sure I could pay all the bills first.”). Within this overall goal category, some people articulated wanting to restrict spending (prevention focus; $n = 14$), and other people articulated wanting to devote their money to necessities or to “spend wisely” (promotion focus; $n = 64$). We also saw promotion and prevention focus represented in the goals to attend work or school ($n = 44$; 5.24%) via either wanting to be on time to work or attend class (promotion focus; $n = 39$) or to avoid being late or skipping (prevention focus; $n = 5$).

As predicted, we found evidence of interpersonal goals. We found that interpersonal goals were roughly grouped into four categories. First was an approach goal of communicating assertively ($n = 25$; 2.98%), which were situations where people wanted to ask for something

(e.g., “I have the goal to talk to my dad about finding an apartment to live in next year,” or “I wanted to ask for a day off from my boss.”) or clearly say no to someone else’s request (e.g., “My friends had asked me to go out, and I actually didn’t feel that I wanted to. The use of self-control would have been to say no, and stay in for the night”). The next two categories involved goals of increasing contact with friends or family ($n = 15$; 1.79%) or decreasing contact with others (e.g., “I have been trying to cut a person who has been a bad influence out of my life.”; $n = 12$, 1.43%). Finally, we also found a relatively common goal related to managing interpersonal conflict ($n = 59$; 7.02%). These included prevention-focus goals ($n = 36$) of wanting to avoid lashing out (e.g., “When my girlfriend and I broke up, I said some really mean and terrible things to her. If I had used self-control, I would not have said those things to her.”) as well as promotion goals ($n = 23$) of wanting to speak calmly and rationally during conflict (e.g., “I wanted to watch what I said to a certain person who frustrates me. I have been making an effort to show more patience.”).

Temptations. In total, 870 of the scenarios had clearly codable temptations. Our first notable finding in the realm of temptations was the high frequency of the “not do goal” code (described above in the Method section; $n = 150$, 17.24%). These were scenarios when a person basically said that they had a goal, but didn’t want to do it. They weren’t “tempted” away by something more desirable, they just felt the need to do something else besides the goal. For example, “The situation was that I needed to laundry. My impulse was just to put it off as long as I possibly could. I actually waited until I literally had no clothes to wear to class” or “I have been really unhappy with my body, so I tell myself that when I get home from dropping off my kids at school, I am going to exercise. However, I end up with something else that seems more important, like laundry, cleaning, or even just settling a fussy 2 year old.” These often involved

a lot of excuses, including the things that people tell themselves like “I made the excuse I had too much homework” or “The problem is I feel like I don’t have a lot of time, which isn’t necessary true.” Or “I know I shouldn't skip, but it's a night class and my motivation decreases once it starts to get darker.”

The “not do goal” temptations could be construed as avoidance temptations—these are temptations to avoid engaging in the action that would lead to the long term goal. In addition to these, we also found specific (albeit few) avoidance temptations involving emotional avoidance ($n = 8$; .92%), often in the context of interpersonal situations. For example, one person indicated their goal was to “Talk to my brother about a family issue” but that the temptation was “to avoid talking to him because I do not want to feel uncomfortable.” A related avoidance temptation was coded as avoiding a difficult conversation ($n = 10$; 1.15%). For example, “I need to talk to my boss about having more than two days over winter break. But instead I avoided her all day and made ‘small talk.’” Avoidance of uncomfortable feelings was not explicitly stated in many of these interpersonal situations where the goal was to approach and the temptation is to avoid, but it was implied in all of them.

Of course, most of the temptations were approach temptations—things that people desired *to do*. The most common was food, including both eating delicious (but often unhealthy) foods ($n = 173$; 19.89%), and eating more than desired ($n = 33$; 3.79%), reflecting both type and quantity of food as separate temptations. Other common temptations were movies and TV ($n = 87$; 10%), sleep ($n = 77$; 8.85%), spending time with friends or family ($n = 68$; 7.82%), phone and internet browsing ($n = 36$; 4.14%), and spending money on fun but unnecessary things ($n = 62$; 7.13%; note that the latter might have been heightened because of the study taking place around the holiday season). The interpersonal temptation of arguing, yelling or criticizing (e.g.,

“start a stupid texting war with my boyfriend”) was also fairly common ($n = 61$; 7.01%). Some scenarios described temptations of other leisure activities such as playing video games ($n = 22$; 2.53%), lying around and doing nothing (e.g., “to be lazy and rest”; $n = 16$; 1.84%), or reading for pleasure ($n = 5$; .57%). Temptations involving substances such as drinking alcohol ($n = 20$; 2.30%), smoking cigarettes or using tobacco products ($n = 17$; 1.95%), or doing drugs ($n = 4$; .70%) were relatively less common. We also retained several temptations that were not particularly common but seemed as though they may be useful as categories, including several interpersonal temptations involving other people such as flirting (e.g., “smile and flirt with this very attractive, younger employee”; $n = 2$; .23%), sex and physical intimacy ($n = 6$; .69%), gossiping (e.g., “to share juicy gossip about others”; $n = 2$; .23%), contacting someone toxic who the person had attempted to cut out of their lives (e.g., “wanting to talk to someone because I was bored”; $n = 6$; .69%), helping or pleasing others (e.g., “Just let them play because it was easier for me to be able to do other things”; $n = 4$; .46%). We retained the category of enacting physical violence towards others ($n = 1$; .11%) despite the single scenario, as we recognize physical violence remains a significant public health challenge (e.g., domestic violence). We assume that this temptation is likely low frequency but also subject to social desirability.

Self-Control Challenges. After coding the goals and temptations separately, we then turned to examining common self-control challenges, or pairs of concrete action goals and temptations. Note that in this section, we report counts only (not percentage) as we were not trying to look at proportions, merely how the pairs tended to occur. Results revealed that some of the concrete action goals had consistent 1-to-1 relationships with specific temptations. These were almost exclusively the avoidance goals. For example, 54 scenarios involved the concrete action goal of spending money wisely along with the temptation of spending money on fun but

unnecessary things. In other words, the temptation and the goal were in the same domain (e.g., money) where the self-control challenge was a conflict between wanting to approach something (e.g., spend money on something fun) and also wanting to resist or avoid that exact same thing (e.g., save money, restrict spending). Similarly, avoiding substance use was associated with temptations to use that substance ($n = 34$), wanting to get up and out of bed to be productive was associated with the temptation to sleep ($n = 11$), the goal of reducing or avoiding media was associated with the temptation to use a cell phone or browse the internet ($n = 9$), the goal of managing interpersonal conflict (typically by refraining from lashing out at someone else) was associated with the temptation to yell, argue or criticize ($n = 56$), and people who wanted to avoid unhealthy foods had the temptation to eat those same foods ($n = 100$). In sum, the goal to avoid or reduce a particular behavior was associated with the temptation to approach or engage in that behavior.

On the other hand, the approach goals were much more variable in terms of the types of temptations that went along with them. For example, exercise was one of the most common concrete action goals, but was associated with a variety of temptations. The most common was “not do goal” ($n = 43$), but also spending time with friends or family ($n = 8$), lying around/doing nothing ($n = 10$), sleep ($n = 18$), or movies/TV ($n = 17$). In other words, the common temptations were companionship, or less effortful ways to spend time, in addition to simply holding the temptation to not exercise. In fact, the same pattern appeared for other approach goals that are effortful and not particularly pleasant—housework, work attendance, and work tasks. In all of these, “not do goal” appeared as a common temptation, and the other temptations were less effortful ways to spend time than the goal itself. For the action goal of housework, it was “not do goal” ($n = 28$) and movies/TV ($n = 17$), for work attendance it was sleep ($n = 27$)

followed by “not do goal” ($n = 6$), and for completing work tasks the temptations were various, including “not do goal” ($n = 41$), movies/TV ($n = 41$), spending time with friends or family ($n = 29$), phone/internet browsing ($n = 15$), video games ($n = 11$), sleep ($n = 9$), and alcohol or drugs ($n = 5$).

To make sense of these goals with temptations in different domains, we attempted to create superordinate categories of desires (Table 3). Within this framework, the temptations and goals now clearly coincide--the concrete action goals and temptations are typically in the same overarching category. For example, the “not do goal” temptation was associated with time-related goals—these goals are things people must put time (and often effort) into doing such as exercise, housework, sleep, but time can be spent doing any number of things, many of which are more “fun” than the goal-related task.

Table 3. *Superordinate categories of goals and temptations.*

Category	Outcome/Distal Goals	Concrete Action Goals	Temptations
Consumption	<ul style="list-style-type: none"> • Weight management • [Be healthy] 	<ul style="list-style-type: none"> • Food amount • Food type choice • Substance use (reduce/avoid) 	<ul style="list-style-type: none"> • Alcohol • Drugs • Food • Tobacco
Interpersonal	<ul style="list-style-type: none"> • Help someone else accomplish something • Manage others' perceptions • Relationship (maintain/obtain/sever) 	<ul style="list-style-type: none"> • Assertive communication • Help others • Interpersonal conflict management • Interpersonal contact choice 	<ul style="list-style-type: none"> • Arguing, yelling or criticizing • Avoid a difficult conversation • Contact former friend • Flirt • Gossip • [Help or please others] • Hit or physically injure someone
Intrapersonal	<ul style="list-style-type: none"> • Emotional management • Prevent physical illness or complication • [Be a good person] • [Keep faith] 	<ul style="list-style-type: none"> • Emotion management • Faith activities 	<ul style="list-style-type: none"> • Sexual pleasure • Avoid negative emotions
Ways to Spend Time	<ul style="list-style-type: none"> • Habits: Productivity • [Be healthy] 	<ul style="list-style-type: none"> • Exercise • Housework 	<ul style="list-style-type: none"> • “Not do goal” • Hang with friends or family

	<ul style="list-style-type: none"> • [Academic success] • [Improve career] • [Improve living situation] 	<ul style="list-style-type: none"> • Media avoid/Reduce • Reading • [Sleep] • Stay/Come home • Work Attendance • Work Tasks 	<ul style="list-style-type: none"> • [Help or please others] • Lying around/doing nothing • Movies/TV • Phone/Internet browsing • Reading for pleasure • [Sleep] • Video games
Financial	<ul style="list-style-type: none"> • Save \$/Make \$ 	<ul style="list-style-type: none"> • Spend \$ wisely 	<ul style="list-style-type: none"> • Spend \$ on fun but unnecessary things
Achievements	<ul style="list-style-type: none"> • [Academic success] • Buy something specific • [Improve career] • [Improve living situation] 		
Values	<ul style="list-style-type: none"> • [Be a good person] • [Be healthy] • [Keep faith] • [Knowledge] 		

Note: items in [parentheses] are repetitions of items listed elsewhere in the table; some goals and temptations likely fall under multiple categories

Discussion

Our intention for this primarily qualitative study was to examine the categories of goals and temptations people experience in daily life to develop a taxonomy of common self-control challenges (which is essentially summarized in Table 3). In doing so, we expected to find reports of interpersonal self-control challenges and avoidance temptations, with the hope of furthering research on self-control by identifying areas in need of future study.

This study operated from the flip standpoint of Hofmann and colleagues (2012)—they examined instances of desires, and then evaluated when those desires conflicted with personal goals. We examined instances of conflicts between desires and personal goals, and from that examined types of desires. Despite these differences in emphasis, there was overlap in our findings. In particular, the prior work found that food, social contact, media use, and sleep were among the highest frequency temptations (Hofmann, Vohs et al., 2012), and our data indicate the

same, even when participants had to generate their own temptation situations. However, our data did not include desires for coffee, sports participation, hygiene or non-alcoholic drinks at high enough frequency levels to suggest separate categories. The conflicting goals reported by participants in Hofmann and colleagues paper (2012) were likewise consistent, with high proportions of health-related goals (e.g., exercise, healthy eating) and achievement goals (e.g., academic success, professional success).

We also found significant instances of interpersonal self-control challenges, where people had goals of managing conflict, enhancing time with friends or family, or communicating assertively. In general, the categories of interpersonal goals were similar to the domains of interpersonal competence developed for individual difference assessment (Buhrmester et al., 1988). These interpersonal goals were associated with temptations to argue or criticize, or to avoid having uncomfortable conversations. Interpersonal goals and temptations were relatively common, verifying our prediction that interpersonal situations are rife with self-control challenges.

We also found evidence of avoidance temptations. These were instances of people wanting to avoid discomfort, either generally or because an interpersonal interaction would be likely to make them uncomfortable. Clinicians have long identified habitual experiential avoidance, or a lack of willingness to experience uncomfortable feelings, thoughts or behaviors, as an important process contributing to psychopathology (Chawla, & Ostafin, 2007). This work confirms that at a more micro level, pulls to avoid discomfort can disrupt goal pursuit, consistent with the idea that short-term mood prioritization can undermine self-control (Tice & Bratlavsky, 2000). These avoidance temptations are evident clinically and theoretically, but thus far seem to be understudied in the self-control literature.

Beyond the categories we hypothesized, a few additional points are worth noting. First is that the avoidance goals were typically associated with approach temptations in the same content area—reflecting a kind of “I shouldn’t do X, but I really want to do X!” conflict indicative of inhibitory self-control (de Ridder et al., 2011; Stroebe, Van Koningsburggen, Papies, & Aarts, 2013). In contrast, the approach goals were associated with a variety of temptations, more akin to “I should do Y, but I’d really rather do any number of other things,” suggestive of initiatory self-control (de Ridder et al., 2011). Within the framework we articulated in Table 3, the variety of temptations associated with these initiatory goals makes sense, and likewise suggests that these temptations could be goals themselves in other contexts.

Second, we intentionally retained some temptations that were low-frequency in this sample, such as flirting and gossiping. We recognized that these are not going to be temptations everyone will experience. In fact, for some people these behaviors could serve long term goals—flirting may facilitate obtaining a relationship or sexual pleasure, gossiping can strengthen or create bonds of friendship. In these cases, flirting and gossiping would not be considered temptations, because they are not counter to a person’s long term goal (Fujita, 2011). Yet, if people have goals associated with fidelity or integrity, then flirting and gossiping may be temptations. Moreover, it may be that these are examples of temptations that occur more often than people were able to recall or willing to acknowledge as temptations in a narrative study.

Study 2

As the major function of this project was to develop a taxonomy of goals and temptations to be used in future work, we wanted to verify the approximate frequency of the goals and temptation categories constructed in Study 1. We thus conducted a brief follow-up study to assess the desires identified by this taxonomy in terms of how often people report experiencing

each of these desires, and if people would classify these desires similarly as we have here (in terms of goals versus temptations). This follow-up study thus allowed us to empirically examine some of the discussion points broached above, namely if some of the behaviors (particularly those in the “ways to spend time category”) can be construed as both goals *and* temptations, as well as if some of the low-frequency categories from the narrative were acknowledged more readily when in the context of simply having to endorse rather than generate. In addition to the central goal of verifying the taxonomy categories, we also wished to provide construct validation of these as self-control domains by assessing how engagement in these self-control behaviors may be positively (e.g., goals) and negatively (e.g. temptations) associated with trait self-control.

A few small adjustments were made to the taxonomy to increase the utility of the categories for quantitative research. For the goals, we initially had only one category related to emotions, which was the goal to manage emotions. Upon discussion and review of the qualitative data, we recognized that “manage emotions” involved both regulation and attempts to change emotions as well as accepting emotions that were present. Thus, we split this broad category into two behaviors, “regulate emotions” and “accept emotions.” Second, some of the behaviors were listed in both the goal and temptation sections in Study 1 (e.g., reading for pleasure). To avoid redundancy, we included the behavior only once in Study 2, although some behaviors were mentioned multiple times if we also assessed an avoidance behavior. For example, avoiding eating too much was a goal category and eating too much was a temptation category. After making these changes, this study included 20 goal categories and 17 temptation categories (see Tables 4 and 5 below).

Method

Participants. Participants were 222 individuals recruited via Amazon’s Mechanical Turk, with a mean age of 35.04 ($SD = 10.42$, Range 18 to 70), 42.6% women, 76.2% White. Data collection for this study took place during the end of December (post-Christmas) in 2017.

Procedure. After completing the 13-item Brief Self Control Scale (BSCS; Tangney, Baumeister, & Boone, 2004) as a measure of trait self-control, participants were presented with the list of goal and temptation behaviors and were asked “How often do you DO this behavior” with the response choices of 0 (*Never*), 1 (*Rarely-Less than once per month*), 2 (*Occasionally – A few times per month*), 3 (*Frequently – a few times per week*) and 4 (*Very frequently – Daily or Multiple times per day*). The order of behaviors was randomized. After the list of specific behaviors, participants were also asked about the frequency of avoiding their obligations. They were told that “This sometimes involves being tempted toward something more interesting (e.g., tempted to watch Netflix instead of doing laundry) but it might also mean just a desire to avoid the behavior associated with the goal. In this case, the temptation would be to do anything *besides* the goal. How often do you find yourself tempted to just avoid the tasks associated with your goals?” The possible response options here were the same 0 to 4 scale.

After participants completed frequency information, they were given a definition of temptation as “Temptations are things that you are drawn toward, but that you know you shouldn’t do because they will derail you from your long term goals.” Participants were given examples of both approach temptations (e.g., unhealthy foods) and avoidance temptations (e.g., avoiding doing laundry), and participants were reminded that they could be tempted to do something but not actually do it. This information was followed by a comprehension check question where participants were asked to identify the correct definition of temptation. The definition and manipulation check items were presented because participants have, in past

studies, demonstrated a lack of understanding of the term temptation ([removed for blind review]). If they got the manipulation check wrong, they were guided back to the temptation instructions and asked to re-re-read and complete the manipulation check again.

Participants were then shown the list of goal and temptation behaviors again and asked to indicate whether, for them, each behavior was associated with a long term goal, if the behavior represented a temptation, if the behavior was both a goal and a temptation (i.e., sometimes a goal, sometimes a temptation) or if the behavior was simply not relevant to them. For these items, the approach and avoidance behaviors were grouped separately. These distinctions were made because describing avoidance temptations is more complex than approach temptations and we wanted to be able to provide clear response options (e.g., “an *avoidance temptation* is something I probably should do, but I’m tempted to avoid”). After identifying each behavior as a goal, temptation, both or neither, participants were told the study was over and asked to indicate whether they actually paid attention to the study or not.

Results

We excluded the 10 people who indicated they did not actually pay attention to the items in the study. We also excluded 3 people who failed the temptation manipulation check even after revisiting the definition the second time, and 8 people who completed the study in a short enough duration that suggested they did not pay attention (shorter than 8 minutes, which was 1.5 standard deviations below the mean duration). Thus, our final sample size was 202 (average age 35.59, $SD = 10.56$, Range 18 to 70, 43.1% women, 74.8% White).

Descriptives. Goal results are presented in Table 4, organized by the percentage of respondents who indicated the behavior was a goal in descending order. The approach goals that were endorsed by the most people were spending money wisely, eating healthy, exercising,

attending work or school, doing housework and completing work or school tasks. In addition, most of the approach goals were endorsed as “goals” by the majority of participants, with the exception of reading for pleasure, spending time at home and engaging in faith activities, which were endorsed by less than 50% of the sample as a clear goal. Two of these, reading for pleasure and staying home, also had relatively high percentages in the “both” column, suggesting these are both goals and temptations for about a third of respondents. In addition, most of the approach goals were associated with relatively high frequency, suggesting people are doing these behaviors at least weekly.

The avoidance goal percentages are lower than approach, and this is likely because the wording of the avoidance goal questions was more confusing, particularly as related to avoidance temptations (see below for discussion). Still, the goal of avoiding eating too much was endorsed by a majority of the participants, and the other avoidance goals were still endorsed by at least a third of the sample.

Table 4. *Study 2 frequencies of goal categories and classification of goal category behaviors.*

Approach/ Avoid	Behavior	Depiction of Behavior				Frequency of Behavior
		Not relevant %	Goal %	Temptation %	Both %	<i>M (SD)</i>
Approach Goals	Spend money wisely	1.5	90.6	3.5	4.5	3.19 (.76)
	Eat healthy	2.0	88.6	3.5	5.9	2.60 (.99)
	Exercise	3.5	88.6	1.5	6.4	2.25 (1.10)
	Attend work or school on time (e.g., go to class)	7.4	85.6	2.0	5.0	3.42 (.96)
	Do housework	5.0	84.2	2.0	8.9	2.92 (.82)
	Complete work/school tasks (including homework)	7.4	82.7	2.0	7.9	3.29 (.98)
	Help others	7.9	79.7	4.0	8.4	2.70 (.88)
	Spend time with important people in my life	6.4	78.7	2.5	12.4	3.04 (.89)
	Accept emotions	10.4	75.2	3.5	10.9	2.92 (.92)
	Manage conflicts with friends and/or family	13.4	74.3	5.0	7.4	2.11 (.99)
Communicate assertively	10.4	71.3	5.0	13.4	2.20 (.97)	

	Regulate emotions	13.9	70.8	3.5	11.9	2.50 (.99)
	Increase or maintain sleep (e.g., go to bed earlier, sleep instead of watching TV, etc.)	10.9	65.3	6.9	16.8	2.37 (1.01)
	Read for pleasure	16.3	49.0	5.9	28.7	2.22 (1.18)
	Spend quality time at home instead of going out	16.3	44.1	8.9	30.7	3.19 (.81)
	Engage in faith activities (e.g., read religious text, attend services)	67.8	22.8	2.5	6.9	.81 (1.21)
Avoidance	Intentionally avoid eating too much	13.4	58.9	23.8	4.0	2.29 (1.20)
Goals	Try to get <i>less</i> sleep (e.g., avoid hitting snooze, get up on time)	18.8	45.5	21.8	13.9	1.75 (1.21)
	Intentionally avoid toxic people	34.2	42.6	17.3	5.9	2.78 (1.08)
	Try to avoid or reduce media (phone, TV, video games)	16.3	39.1	17.8	26.7	1.61 (1.15)
	Avoid substances or work on reducing use (e.g., smoking, alcohol, drugs)	42.6	37.6	15.8	4.0	2.60 (1.37)

Temptations are presented in Table 5. Highly endorsed temptations involve eating (eating unhealthy foods or eating too much), spending money, doing nothing, gossiping, drinking alcohol, and avoiding difficult conversations. Notably, many of the activities that are in the “ways to spend time” category (Table 3) were endorsed as either temptations or both goals *and* temptations—watching movies or TV, playing video games, using a phone or the internet, and sexual activities.

Table 5. *Study 2 frequencies of temptation categories and classification of temptation category behaviors.*

Approach/ Avoid	Behavior	Depiction of Behavior				Frequency of Behavior
		Not relevant %	Goal %	Temptation %	Both %	<i>M</i> (<i>SD</i>)
Approach	Eat unhealthy foods	7.9	1.0	84.7	6.4	2.21 (.91)
Temptations	Eat too much	20.3	0.00	75.2	4.5	1.61 (.95)
	Spend money on fun but unnecessary things	11.9	1.5	71.3	15.3	1.56 (.82)
	Lie around and do nothing	12.4	1.5	64.4	21.8	1.66 (1.02)
	Gossip about others	41.6	.5	53.5	4.5	1.09 (.90)
	Drink alcohol	40.6	.5	53.0	5.9	1.27 (1.11)

	Contact someone who you know is bad for you (e.g., former friend or partner)	46.5	.5	50	3	.56 (.86)
	Watch movies or TV	6.9	5.4	47.0	40.6	2.95 (.90)
	Play video games	22.3	4.5	44.1	29.2	1.98 (1.33)
	Use your phone or the internet	10.4	3.5	42.6	43.6	3.70 (.76)
	Use nicotine products (cigarettes, dip, vaping)	53.5	.5	42.1	4.0	1.08 (1.60)
	Argue with, yell at or criticize others	55.0	1.0	37.6	6.4	.89 (.83)
	Flirt	47.0	6.4	29.7	16.8	1.15 (1.16)
	Use drugs	67.3	0	28.7	4.0	.36 (.84)
	Sexual activities	16.3	22.8	23.3	37.6	2.29 (1.13)
	Hit or physically injure someone	79.2	1.0	17.8	2.0	.20 (.63)
Avoidance	Avoid a difficult conversation (e.g., avoid confronting a friend, avoid asking for money)	14.4	18.8	54.5	12.4	1.61 (.98)
Temptations	Do whatever you need to do to avoid feeling bad (avoid or escape from negative emotions)	13.4	48.5	20.3	17.8	1.69 (1.04)

Relationship to Self-Control. Although the major function of Study 2 was to verify the categories, the inclusion of quantitative data also allowed us to validate the utility of these categories in a few other ways. First, for each person we calculated an average frequency score for all of the behaviors classified as goals, and another frequency score for all the behaviors classified as temptations (i.e., the behaviors in Tables 4 and 5). A paired samples *t*-test revealed that people report engaging in goal behaviors ($M = 2.51$, $SD = .44$) more often than temptation behaviors ($M = 1.55$, $SD = .40$), $t(201) = 21.69$, $p < .001$, $d = 1.52$.

We also calculated the correlations between the frequencies of goal behaviors, frequency of temptation behaviors, frequency of the single “not do goal” item, and scores on the Brief Self-Control Scale (Tangney et al, 2004), an often-used measure of trait self-control (see Table 6). Results revealed no significant correlation between the average frequencies of goal and

temptation behaviors. However, greater endorsement of “not doing a goal” was correlated with doing temptation behaviors more frequently. In addition, higher trait self-control was associated with greater frequency of goal behaviors, lower frequency of doing temptation behaviors, and lower frequency of “not do goal.”

Table 6. *Correlations between frequencies of goals and temptations and trait self-control.*

Measure	(1)	(2)	(3)	<i>M (SD)</i>
(1) Avg. Frequency of Goal Behaviors	--			2.51 (.44)
(2) Avg. Frequency of Temptation Behaviors	-.13	--		1.55 (.40)
(3) Frequency of “Not Do Goal”	-.19**	.40**	--	1.98 (.95)
(4) BSCS Total	.44**	-.47**	-.54**	44.79 (10.54)

* $p < .05$, ** $p < .01$. Note: BSCS = Brief Self-Control Scale (Tangney et al., 2004)

Discussion

The purpose of Study 2 was to validate the goal and temptation categories by assessing whether the high-frequency scenarios brought up in the qualitative Study 1 were also endorsed with high frequency in a quantitative study. The results suggest that the most common goals generated by participants in Study 1 were also the most common goals endorsed in Study 2, and furthermore these common goals are engaged in with relatively high frequency. Similarly, commonly generated temptations from Study 1 were also endorsed as temptations in Study 2, with eating-related temptations as the most ubiquitous. The behaviors that were rarely mentioned as temptations in the initial study were also endorsed by fewer people in Study 2 (e.g., using drugs, flirting, hitting people).

Despite the considerable validation of the goal and temptation categories in this study, there were several goals identified by over 2/3 of the participants in Study 2 that were not generated very often in the initial study: helping others, spending time with friends and family, accepting emotions, communicating assertively, regulating emotions and increasing sleep. All of these except sleep are either interpersonal or emotional. Our interpretation is that these are goals that people recognize as goals when asked, but people may not generate these as easily as goals that can be “checked off” like doing laundry or exercising. Stated differently, these approach goal behaviors endorsed highly in Study 2 are behaviors that serve long term values of emotional health and social support, which may be implicit goals until attention is brought to them.

We also found that although most of the behaviors were denoted as either goals or temptations, some of the behaviors were classified as both goals *and* temptations by over 15% of the sample. These behaviors included increasing sleep, reading for pleasure, spending time at home, spending money on fun things, doing nothing/relaxing, watching movies or TV, playing video games, using the phone or internet, flirting and sexual activities. The majority of these behaviors fall into the “ways to spend time” superordinate category in Table 3, which make sense as behaviors that are sometimes goals and sometimes temptations. Many of these are leisure activities which improve quality of life and may be associated with self-care, and these same behaviors may be temptations in the context of less desirable long term goals (e.g., doing a school project that is required but not appealing, doing housework, etc.).

Beyond the fact that this quantitative study was conducted online, the central limitation to this study was in the framing of avoidance goals and temptations. Tables 4 and 5 reveal that the classification of avoidance behaviors into categories was not as clean as for the approach goals and temptations. Our belief is that despite our best efforts to ensure that participants understood

the definition of temptation, and that we phrased the questions as clearly as possible, the avoidance items remained more difficult to understand. This was particularly relevant for avoidance temptations. Consider the item “sleep too much (hit snooze, sleep in).” Recognizing this as an avoidance goal is relatively easy if someone recognizes that they might need to reduce their sleeping tendencies to get to work or school on time. However, disentangling how sleeping in could be an avoidance temptation is more difficult—this would be a situation in which sleeping more is advantageous and consistent with a goal, but the person is tempted to *not* sleep in—tempted to get up earlier. Although it is theoretically possible that sleeping more could be an avoidance temptation, we suspect that participants did not spend the mental effort to truly think this through when responding to the avoidance goal and temptation classification items. Further attention to how to ask participants about avoidance temptations may be important in future work.

One final strength of Study 2 is that we were able to confirm that greater frequency of engagement in behaviors classified as goals and lower frequency of engagement in behaviors classified as temptations is associated with self-control. In addition, frequency of engagement in temptations was also correlated with “not doing a goal” which was a common form of temptation identified in Study 1. These correlational findings provide additional convergent validity evidence for the taxonomy, and suggest the utility of these goal and temptation categories in understanding self-control conflict situations in future empirical research.

General Discussion

These two studies together provide initial development and validation of a taxonomy of self-control challenge situations. Between the qualitative (Study 1) and quantitative (Study 2) approaches, we are confident that this project reveals categories of goals and temptations that are

commonly experienced in daily life. Consistent with our predictions on the forefront, we found evidence of interpersonal goals (and temptations) associated with self-regulation, and we also found evidence of avoidance temptations, a phenomena we have encountered as clinicians but rarely seen in the empirical literature. We provide initial validation of the taxonomy such that these behaviors were associated with self-control at the trait level in Study 2. Beyond these general findings, the richness of the data in these studies (particularly Study 1) provides additional opportunities to consider some of the nuances related to how people describe and/or endorse the self-control challenges they face in daily life.

Distal and/or Concrete Goals?

The narrative data in Study 1 revealed the variety of ways in which people depict their goals, from goals indicative of how a person wants “to be,” to more distal goals that typically involve multiple steps or effort over time, to concrete behavioral goals in a given situation (Carver & Scheier, 2011; Scholer & Higgins, 2011). Do these different goal framings influence self-control? Our one analysis examining self-control success suggested that a higher proportion of the success scenarios included distal (more abstract) goals, recognizing that these also included concrete actionable goals. Perhaps articulation of both actionable goals (Gollwitzer & Sheeran, 2006; Mann, de Ridder, & Fujita) and more abstract high-level construals of goals (Fujita, 2008) can both facilitate self-control. Recent empirical research supports this idea, such that having students articulate achievement-related values in addition to concrete goals improved GPA compared to articulating goals only (Chase et al., 2013). Future empirical work could examine the distal goal categories alongside the concrete behaviors, and examine how these different types of goals may become differentially activated based on context.

Framing of Goals and Temptations

The scenarios of Study 1 also exemplify how people vary in regulatory orientations of their goals (Higgins, 1997), particularly the concrete action goals, where many varied in regulatory focus (e.g., promotion versus prevention). Examining the combination of goals and temptations from both approach and avoidance tendencies could result in a framework such as depicted in Table 7.

Table 7. *Theorized combinations of approach and avoidance goals and temptations.*

		Goal	
		Approach goal	Avoidance goal
Temptation	Approach temptation	(A1) Goal is to eat carrots; temptation is to eat pie (B1) Goal is to be patient with spouse; temptation is to yell at spouse (C1) Goal is to exercise; temptation is to watch a sporting event on TV	(A2) Goal is to avoid eating pie; temptation is to eat pie (B2) Goal is to avoid lashing out at spouse; temptation is to yell at spouse (D1) Goal is to reduce drinking by participating in therapy; temptation is to watch a sporting event on TV airing during therapy time
	Avoidance temptation	(C2) Goal is to exercise; temptation is to not exercise or delay exercising (E) Goal is to ask boss for a raise; temptation is to avoid the difficult conversation and saying nothing	(D2) Goal is to reduce drinking by participating in therapy; temptation is to avoid therapy work

Note: (A) and (B) are examples that each have the same temptations but with the goals framed from promotion or prevention standpoints; the framing of the goal changes the quadrant of the self-regulation challenge. (C) represents an approach goal, with the temptation framed as either a competing desire or an avoidance desire; the focus of the temptation changes the quadrant of the self-regulation challenge. (D) represents an avoidance goal, with the temptation framed as either a competing desire or an avoidance desire; the focus of the temptation changes the quadrant of the self-regulation challenge (E) is an example of an approach goal with a temptation to avoid the goal situation

This table provides several examples of how self-control challenges could be characterized. Interestingly, regulatory focus could actually change the quadrant of the self-control challenge. For example, scenario A1 presents a goal to eat carrots, where the temptation is to eat pie; this is a promotion focused goal and thus construed as an approach-approach conflict—two conflicting desires. However, framed from a prevention standpoint (A2), even with the same temptation (e.g., to eat pie), when the goal is framed as a goal to avoid pie, now we are in the realm of an approach-avoidance conflict. The temptation is the same, but framing of the goal shifts the nature of the conflict. Regulatory fit theory proposes that goal framing works best when it “fits” with a person’s regulatory orientation (Higgins, 1997). However, other research indicates that framing goals as approach or promotion goals tends to be associated with greater well-being than construing goals from an avoidance or prevention framework (Coats et al., 1996; Elliot, Sheldon & Church, 2006; Roskes, Elliot, & De Dreu, 2014). For simplicity sake we did not include regulatory orientation into Study 2, and we recognize that more work is needed to ascertain the relative strengths and weaknesses of goal framing in the context of the same temptation.

One major lesson we gleaned from this project is that a temptation doesn’t actually have to be something tangible. Yes, sometimes people are “lured” by a specific temptation, such as the classic biblical example of Eve being tempted by the luscious apple. In contrast, a number of people also indicated feeling pushed *away* from their goals, and not necessarily toward anything in particular. These kind of temptations include academic procrastination (Klingsieck, 2013) and provide support for the new concept of health behavior procrastination (Kroese & de Ridder, 2016) such that people intentionally put off or delay activities that they ultimately want to accomplish. In addition, there were subtle differences in how people presented the “not do goal”

in Study 1. Some people talked about how they wanted to do anything but the goal, searching for something else to occupy their time, whereas other people just mentioned their temptation was to avoid the goal itself. Looking at Table 7, scenarios C2 and scenario E exemplify the “not do goal” idea—where C2 presents the goal to exercise with the temptation to avoid exercise. A different person with the same goal may think of the temptation from an approach framework (scenario C1). If someone says that their goal is to exercise, but their temptation is to watch a sporting event on TV, this could reflect a targeted example of the “not do goal” where the person articulated something more preferable than the goal, or it could truly represent an approach-approach conflict where both activities are highly valued. Are these different? We are not sure; this is an area ripe for future research. In general, the “not do goal” concept and related avoidance temptations are consistent with failures in initiatory self-control (de Ridder et al., 2011), and suggest that further understanding of initiatory and inhibitory self-control is warranted, potentially by considering the approach or avoidance framing (Table 7).

Examples of avoidance-avoidance challenges were difficult to generate in the context of the “everyday” goals and temptations identified here. The avoidance-avoidance concept was most prominent in the context of an intense avoidance goal, such as the goal to quit smoking or reduce drug use; goals that involve physiological as well as psychological components while still falling under the general domain of self-control (Köpetz, Lejuez, Wiers, & Kruglanski, 2013). Consider someone who has an avoidance goal to reduce drinking, and is undergoing therapy for alcohol abuse but is also tempted away from doing the therapy-related work or even attending therapy (Table 7). That person could frame the temptation as an approach desire (e.g., D1, to watch a sporting event that is happening during therapy time) or as an avoidance temptation, where the temptation is simply to avoid therapy (D2). Whether the former is simply an excuse

that supports the “real” temptation of avoidance is an intriguing question open to future work. In addition, we recognize that the taxonomy derived here allows for intense temptations but likely focuses on weaker ones. Strong temptations are advantageous from a research standpoint; it is easier to see effects in the context of strong urges, such as by studying smokers or chronic dieters who struggle with temptations toward fatty foods (Strobe et al., 2013). If, however, many self-control challenges are these low-level temptations, finding ways to study them will be important, including ascertaining other contexts in which avoidance-avoidance situations might occur.

Limitations

The current set of studies has several limitations. We cannot be certain that these categories compose a complete taxonomy of self-control challenges; there were certainly idiosyncratic goals and temptations described in Study 1. Still, considering that Study 2 verified that these categories are relatively common, we remain confident that this taxonomy generated the most common self-regulation situations.

In addition, we recognize that generalizability of these findings (in terms of frequency) is limited as both studies took place broadly during the holiday season (e.g., Study 1 immediately after Thanksgiving and Black Friday, Study 2 immediately after Christmas) where food and spending challenges were likely elevated. Additional work, such as via ecological momentary assessment (Hofmann, Vohs et al., 2012) would be helpful in further examination of the goals and temptations identified here in terms of frequency of experience, particularly around avoidance temptations and interpersonal situations.

Another limitation is that Study 1 focused explicitly on self-control failures. We did this intentionally, as we felt that asking about self-control failure would be easier for participants than asking broadly about “challenges” or successes, as failures loom larger than positive

outcomes (Baumeister, Bratlavsky, Finkenaur, & Vohs, 2001). Our prediction is that the goal and temptation categories derived from a “challenge” study would be the same as the taxonomy developed here. However, it is possible that asking about self-control challenges, or emphasizing successes, could reveal a slightly different set of goals and temptations, and may be more amenable to ascertaining natural framing strategies that contribute to self-control success. In particular, future work would benefit from examining predictors of successes, such as with regulatory orientation (e.g., are promotion or prevention focus goals associated with greater success?) or level of abstraction (e.g., does including a distal goal along with a concrete action goal facilitate success?).

Strengths and Future Directions

One of the goals of our project was to develop a taxonomy of self-control challenges that people encounter in daily life, without assuming that we—the researchers—could generate an entire list of goals and temptations that matter to people. In our qualitative study, we intentionally recruited from multiple samples, including psychology subject pool students and adults across the US who were more diverse in terms of geography and age—the latter of which we felt was particularly important, as people’s priorities shift with age (Cartensen, Isaacowitz, & Charles, 1999). We capitalized on the benefits of qualitative work—to allow people to speak for themselves with less structure and limits imposed on participants—and verified our findings quantitatively with the ultimate goal of influencing future laboratory and/or experience sampling research on self-control. As intended, we are left with several questions that can be addressed by future work, many of which were discussed already. How can future work model interpersonal self-control situations? How can lab studies assess avoidance temptations? How can lab and/or experience sampling studies model the “not do goal” temptation? Future researchers could also

adopt an individual differences approach to examine traits and characteristics that predict the “not do goal” temptation or interpersonal self-control challenges.

In general, our work dovetails nicely with prior work on self-control in daily life (Hofmann, Vohs et al., 2012) in that the taxonomy developed here overlaps with researcher-generated lists of desires and personal goals, and naturalistically reflects differences in regulatory fit (Higgins, 1997), construal level (Fujita, 2008) and domains of interpersonal competence (Buhrmester et al, 1988). In addition, this work provides clear empirical support for the newly developed concept of health behavior procrastination (Kroese & de Ridder, 2016) and the concepts of initiatory and inhibitory self-control (de Ridder et al., 2011). The sets of goals and temptations described here can spur additional laboratory and experience sampling research on self-control, as it is clear that self-control challenges are experienced by virtually all people, and that these challenges permeate our daily lives.

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