

Yes, But Are They Happy? Effects of Trait Self-Control on Affective Well-Being and Life Satisfaction

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Abstract

Does trait self-control (TSC) predict affective well-being and life satisfaction—positively, negatively, or not? We conducted three studies (Study 1: $N = 414$, 64% female, $M_{\text{age}} = 35.0$ years; Study 2: $N = 208$, 66% female, $M_{\text{age}} = 25.24$ years; Study 3: $N = 234$, 61% female, $M_{\text{age}} = 34.53$ years). The key predictor was TSC, with affective well-being and life satisfaction ratings as key outcomes. Potential explanatory constructs including goal conflict, goal balancing, and emotional distress also were investigated. TSC is positively related to affective well-being and life satisfaction, and managing goal conflict is a key as to why. All studies, moreover, showed that the effect of TSC on life satisfaction is at least partially mediated by affect. Study 1's correlational study established the effect. Study 2's experience sampling approach demonstrated that compared to those low in TSC, those high in TSC experience higher levels of momentary affect even as they experience desire, an effect partially mediated through experiencing lower conflict and emotional distress. Study 3 found evidence for the proposed mechanism—that TSC may boost well-being by helping people avoid frequent conflict and balance vice-virtue conflicts by favoring virtues. Self-control positively contributes to happiness through avoiding and dealing with motivational conflict.

Self-control is defined as the ability to override or change one's inner responses, as well as to interrupt undesired behavioral tendencies (such as impulses) and refrain from acting on them. As such, it is among humankind's most valuable assets. Individual differences in self-control bear out this value: Low self-control is implicated in a large range of individual and societal problems, including unhealthy eating, lack of exercising, academic failure and underachievement, procrastination, substance abuse, impulse buying, and delinquent behavior (Duckworth & Seligman, 2005; Friese & Hofmann, 2009; Gottfredson & Hirschi, 1990; Moffitt et al., 2011; Patton, Stanford, & Barratt, 1995; Vohs & Faber, 2007). A meta-analysis surveying over 100 studies recently confirmed the benefits of high trait self-control (TSC) in work, school, adjustment, interpersonal relationships, and management of problem desires (de Ridder, Lensvelt-Mulders, Finkenauer, Stok, & Baumeister, 2012).

Despite the abundance of evidence regarding the benefits of TSC, its possible links to subjective well-being have received surprisingly little attention. People high in TSC have fewer problems, as indicated by a variety of measures of psychopathology and maladjustment (Tangney, Baumeister, & Boone,

2004). However, there appears to be a dearth of studies exploring the possible relationship between TSC and subjective well-being. The present investigation tested competing hypotheses about possible links among TSC and various measures of happiness.

There are multiple ways of conceptualizing and measuring happiness. Two have been widely influential (Diener, 1984), and our investigation sought to assess both. One of these is based on the idea of happiness and sadness as transient emotional states. By this definition, happiness or well-being consists of feeling good and not feeling bad. This sort of happiness is assumed to fluctuate across moments and situations. To assess global well-being, researchers simply aggregate across time. Happiness is thus considered to consist of relatively many positive emotions and relatively few negative ones. It is chiefly an affective measure. We call this form of happiness

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momentary affect or, in the aggregate, *accumulated affect*. In Study 1, for instance, we also had participants rate their affect over longer periods of time, including a 4-week summary and “in general.”

The other form of happiness is typically called *life satisfaction*. It consists of the person’s appraisal of the relative quality of his or her life. Although this construct undeniably contains some degree of affect, it is far more cognitive than a simple report of one’s current feeling state, leading some researchers to label it “cognitive well-being” (Diener, Suh, Lucas, & Smith, 1999; Luhmann, Hofmann, Eid, & Lucas, 2012). Life satisfaction is a summary view of the person’s life overall. Methodologically, measures of life satisfaction require the participant to integrate his or her own life and experiences and evaluate them. In contrast, accumulated affect measures are integrated by researchers, and participants must merely report how they feel at any given moment.

Multitrait-multimethod studies consistently find that affect and life satisfaction reports are empirically distinct (Lucas, Diener, & Suh, 1996; Luhmann, Hawkey, Eid, & Cacioppo, 2012). There is some relationship between the two, but the causal nature of this has been debated, with several competing models having been proposed (Busseri & Sadava, 2011). It is reasonable to assume that accumulated affect is one cause of life satisfaction (Kim-Prieto, Diener, Tamir, Scollon, & Diener, 2005; Kuppens, Realo, & Diener, 2008). The basic assumption here is that people use their affective experiences as a source of information when they are asked to evaluate their lives (Kahneman, 1999; Schwarz & Strack, 1999). However, other evidence indicates that life satisfaction is more than just the sum of affective experiences. For instance, people think of specific activities and events when asked about their affective states, whereas they consider their broad life circumstances when asked about their life satisfaction (Luhmann, Hawkey, et al., 2012). Our efforts to measure both life satisfaction and momentary (and accumulated) affect enabled us to test hypotheses about how these might be interlinked and how TSC would differentially influence them.

Possible Effects of Self-Control on Happiness

We entertained several competing hypotheses about how TSC would influence happiness. The most elegant was that being high on TSC would be negatively related to momentary or aggregated affect but positively related to life satisfaction. TSC essentially reflects a capacity to resist impulsive temptations and work toward long-term goals. Frequent self-denial would cause one to miss out on many momentary pleasures but could facilitate achievement of important goals. To caricature this view, a person with high self-control lives a grim, joyless life marked by dutiful self-discipline—but is able to take satisfaction in moral rectitude and culturally valued achievement. We label this the Puritan hypothesis, in honor of the straitlaced

killjoys whose toils in the wilderness founded one of the world’s great civilizations.

Alternatively, one could predict that TSC might improve one’s aggregated momentary emotions. These effects might come by both direct (controlling one’s emotions so as to minimize or escape bad feelings and promote good ones) and indirect (e.g., managing to behave appropriately, which thereby reduces stress, guilt, and other bad feelings) routes. The aggregated positive feelings might then add up to a broad satisfaction with life. Consistent with that view, there is some evidence that assessments of life satisfaction are at least partly based on one’s accumulated affective states (e.g., Kim-Prieto et al., 2005). This view would predict that a positive link between TSC and life satisfaction would be mediated by momentary affect.

Last, it was possible that high TSC would improve momentary affect but not life satisfaction. High self-control might include holding unrealistically high standards and feeling that one has failed to live up to them. Thus, the person would feel good in the moment but when reflecting on life as a whole feel disappointed.

Managing Goal Conflict

Nearly everyone has goals, and reaching goals contributes to happiness. Insofar as self-control facilitates goal achievement, it should increase happiness. But perhaps the matter is not so simple as that. Most people have multiple goals, and these sometimes come into conflict. How the person manages these conflicts may contribute to both momentary affect and life satisfaction. Indeed, we share the general assumption that life satisfaction is substantially based on appraisal of how well one is achieving one’s goals in life, and so trading off one goal for another can have different effects on momentary affect versus general satisfaction. Procrastination, for example, may yield momentary pleasures, insofar as one enjoys the present rather than working on a difficult task—but in the long run, life satisfaction may be maximized by working hard on difficult goals rather than frittering away time on transient pleasures. Using trait self-control to overcome procrastination might thus support the Puritan pattern of promoting high life satisfaction at the expense of momentary affect.

We reasoned that self-control’s impact on happiness could be partly mediated by how it affects the process of balancing conflicting goals. The most obvious aspect is that people high in TSC are more likely than others to achieve various goals and positive outcomes (de Ridder et al., 2012; Moffitt et al., 2011), which would suggest that they would be happier than people lacking self-control. More important, perhaps, is that self-regulation is inherently about managing conflict between competing motivations (Baumeister & Vohs, 2007), and so people with high self-control should be exceptionally good at managing goal conflicts. They should be able to formulate plans that enable them to fulfill more of their goals than other people—and to follow through on carrying out those plans.

A particular problem for many people involves what we label “vice-virtue conflicts,” that is, conflicts between highly valued and disvalued goals. Smoking cigarettes, for example, is goal-directed behavior, but the smokers may assign low value to smoking (thus considering it a vice), whereas virtuous abstinence would promote the highly valued goal of health. Good self-control facilitates favoring virtuous abstinence over the vice of smoking (Muraven, 2010). One way this may happen is that people with good self-control are better than others at managing their daily activities so as to avoid exposure to problematic temptations (vices). Hofmann, Baumeister, Förster, and Vohs (2012) found that people high in self-control in fact experienced fewer problematic desires than other people. As a result, such individuals ended up resisting desires less frequently than others—contrary to predictions based on the theory that self-control is about resisting desires and so high self-control would entail frequently resisting desires. There was no reason to think that people high in TSC are immune to feeling temptation. More likely, they structured their activities so as to minimize exposure to situations containing problematic temptations.

The goal conflict idea seems most compatible with the hypothesis that high TSC should boost both momentary affect and life satisfaction. It could, however, fit the Puritan hypothesis if resolving goal conflicts in favor of long-term goals entails a loss of short-term pleasures. In that case, momentary affect might suffer while life satisfaction would be high.

Overview of the Present Studies

We conducted three studies to test our hypotheses about TSC and happiness. The first was a one-shot survey that simply examined intercorrelations among TSC, life satisfaction, and momentary affect. The second was an experience sampling study that followed participants for a week, enabling us to aggregate a great many momentary affect reports and relate them to global measures of TSC and life satisfaction, including measures of desire-goal conflict and emotional distress. The third study focused specifically on the role of goal balancing in explaining the relation between self-control and happiness.

STUDY 1: INITIAL EVIDENCE

Study 1 was an online survey that provided a preliminary test of our competing hypotheses about TSC, life satisfaction, and momentary affect. As a one-shot survey, it measured happiness on only one occasion. The measure of self-control was a trait one, assumed to be relatively stable, and so the one-shot nature of the design would not presumably compromise the measure of self-control. Life satisfaction is how one views one’s life in general, and although this may fluctuate to some extent across time and circumstances, measuring it while people are completing a survey would presumably catch them in a relatively reflective moment and therefore should also be relatively free

from biasing factors that might stem from being in the midst of important life activities. To overcome the problem of having momentary affect only at the moment of completing the survey, we asked participants to rate their emotional states over longer periods of time and in general.

Method

Participants. Four hundred fourteen adults (64% female; $M_{\text{age}} = 35.0$ years, $SD = 12.5$) completed the survey online.

Materials and Procedure. Participants first completed a well-validated 13-item Trait Self-Control Scale (Tangney et al., 2004; $\alpha = .88$). Participants used a scale ranging from 1 (*not at all like me*) to 5 (*very much like me*) to indicate their general self-control tendencies on items such as “I am good at resisting temptation” and “I do certain things that are bad for me, if they are fun [recoded].” Next, emotion and life satisfaction reports were assessed using 5-point scales (1 = *not at all*; 5 = *very much*). Participants completed the five-item Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985; $\alpha = .92$). A sample item is “To what extent do you feel satisfied with your life?” Participants also reported their emotional state using the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), with $\alpha = .90$ for positive affect and $\alpha = .92$ for negative affect. Participants reported how they felt in reference to one of four randomly assigned time frames: today, last week, last two months, and overall (for details, see Luhmann, Hawkley, et al., 2012). Ancillary analyses showed that results did not differ by time frame, and therefore we present results collapsed across the four groups.

Results

The results supported the hypothesis that higher TSC is related to higher subjective well-being. TSC was positively correlated with life satisfaction and positive affect, and negatively correlated with negative affect (Table 1).

We built a mediation model to test whether the effect of TSC on life satisfaction is (at least partially) mediated through affect. Using both positive and negative affect as putative mediators, we tested for indirect effects using asymmetric 95% confidence intervals that were based on 5,000 bootstraps

Table 1 Study 1: Descriptive Statistics, Reliability, and Intercorrelations for Trait Measures

Variable	M	SD	1	2	3
1. Trait self-control	3.35	0.74	—		
2. Life satisfaction	3.02	1.08	.24	—	
3. Positive affect	3.31	0.83	.27	.52	—
4. Negative affect	2.04	0.91	-.35	-.45	-.24

Note. $p < .001$ for all correlation coefficients.

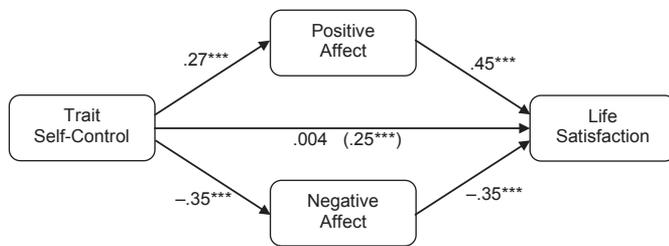


Figure 1 Study 1: Mediation analysis of the effect of trait self-control on general life satisfaction via positive and negative affect. The total effect, before taking into account the mediating variables, is given in parentheses. *** $p < .001$.

(MacKinnon, 2008). Results indicated that the effect of TSC on life satisfaction was fully mediated by positive affect (standardized indirect effect: $\beta = 0.12$, 95% CI [0.08, 0.17]) and negative affect (standardized indirect effect: $\beta = 0.12$, 95% CI [0.08, 0.16]; Figure 1). The direct effect of TSC on life satisfaction was $\beta = 0.004$ and nonsignificant, indicating complete mediation.

Discussion

Study 1 yielded two main results. First, TSC was positively correlated with both life satisfaction and pleasant affect. These fit the hypothesis that being good at self-control is linked to both life satisfaction and positive emotion, as well as to a relative absence of negative emotion. Second, the link between TSC and life satisfaction was mediated by affective experiences. These findings fit the hypothesis that having high self-control improves life satisfaction by way of increasing positive emotions and decreasing negative emotions. These findings contradict the Puritan hypothesis about self-control and other suggestions that TSC detracts from enjoyment of life. Instead, feeling good rather than bad may be a core benefit of having good self-control, and being well satisfied with life is an important consequence.

STUDY 2: SELF-CONTROL AND DESIRE-GOAL CONFLICTS

Although Study 1 found that affective experiences mediated the positive effect of TSC on life satisfaction, those findings could be criticized because it assessed affect with respect to different time frames and at the time of life satisfaction ratings. It remained entirely unclear whether people's affective experiences that occur during the course of daily life and routine would correspond closely (or at all) to how they happened to feel when filling out a one-shot online survey.

Hence, a main goal of Study 2 was to compile a substantial amount of information about people's everyday emotional experiences. To accomplish this, we turned to a large experience sampling study, in which people reported on their states of desire and affect at randomly chosen moments throughout

their daily lives. In previous work, we collected such information from a community sample followed over the course of a week (Hofmann, Baumeister, et al., 2012). That study had been designed to assess how often and how strongly people experience a large range of desires over the course of their day, how conflicted they feel about those various desires, how often they attempt to resist (problematic) desires, and whether they enacted or inhibited a given desire. Thus, this database contained information about both unproblematic and problematic desire pursuits—problematic in the sense that a focal desire may stand in opposition to important, often long-term goals such as health, abstinence-restraint, achievement, time management, and social goals. Previous analyses had found that high-TSC individuals experienced lower average levels of conflict and, therefore, needed to exert self-control less often in their daily lives (Hofmann, Baumeister, et al., 2012). Here, we go beyond these initial findings by further scrutinizing the relationship between TSC and momentary affect as well as life satisfaction. Specifically, we sought to replicate the relationship among TSC, affective experiences, and life satisfaction identified in Study 1. In line with earlier writings on the connection between motivational conflict, stress, and well-being (Emmons & King, 1988; Epstein, 1982; Lazarus & Folkman, 1984; Riediger & Freund, 2008), we further hypothesized that the effects of TSC on affect and life satisfaction would be at least partially accounted for by lower levels of desire-goal conflict and concomitant psychological stress ensuing from such motivational conflicts.

Method

Participants. Two hundred eight adults (66% female; $M_{\text{age}} = 25.24$ years, $SD = 6.32$) participated as part of a larger study. Participants were reimbursed with €20 initially (approximately \$28) and received a number of additional incentives if they completed more than 80% of signals. On average, participants responded to and completed 92.2% of signals. Experience sampling data from three participants were lost due to technical problems. The final sample consists of 205 participants.

Materials and Procedure. Participants were provided with smartphones (Blackberry 7290) for one week. Each day for a week, seven signals were distributed throughout a time window of 14 hours (for more details, see Hofmann, Baumeister, et al., 2012). When signaled, participants indicated whether they were experiencing a current desire or had experienced a desire within the last 30 minutes. Desires were defined as subjective experiences that entail a sense of wanting or longing to do or consume certain things. If they indicated no desire, the assessment period was over, whereas follow-up questions ensued if they indicated a current or recent desire. First, participants indicated the desire content. They then reported the strength of the desire on a scale ranging from 0 (*no desire at all*) to 7 (*irresistible*), the degree to which the

desire conflicted with one or more of their other goal(s) on a scale ranging from 0 (*not at all*) to 4 (*very strongly*), whether they were resisting or had attempted to resist the desire (*yes* or *no*), and whether they had enacted the desire-related behavior (*yes* or *no*). Participants were asked about their momentary affective well-being on a 7-point scale ranging from 1 (*very bad*) to 7 (*very good*). In 60% of occasions, a number of further questions were activated on a random basis. Then, participants provided further information on their current level of stress on a scale ranging from 0 (*not at all*) to 4 (*very much*). They also indicated situational circumstances such as location, presence of other people, and alcohol consumption not in the focus of the present manuscript (see Hofmann, Baumeister et al., 2012). Approximately three days after the experience sampling phase, participants provided demographic data and completed questionnaires, among them the TSC Scale (Tangney et al., 2004; $\alpha = .80$) and the Satisfaction With Life Scale (Diener et al., 1985; $\alpha = .87$).

Results

Data Analysis Strategy. The main analyses of interest were a set of path analyses relating TSC to affective and cognitive well-being. Because both TSC and cognitive well-being were measured at the person level only, a multilevel mediation analysis (from Level 2 to Level 1 to Level 2) was not possible. We therefore aggregated all Level 1 measures (affective well-being, conflict, stress) into composite scores and conducted all analyses on the person level using Mplus (Muthén & Muthén, 2004). Indirect effects were estimated using the model indirect command, based on 5,000 bootstrapping samples.

Table 2 shows the zero-order correlations among measures. Higher TSC was associated with both higher aggregated momentary affective well-being, $r = .30, p < .001$, as well as higher life satisfaction, $r = .34, p < .001$. As in Study 1, affect reports and life satisfaction were correlated but also clearly distinct, $r = .34, p < .001$. As predicted, TSC was marginally

significantly associated with aggregated stress levels, $r = -.13, p = .057$. Moreover, desire-goal conflict was correlated with more negative affect, $r = -.35, p < .001$, but not life satisfaction, $r = .006, p = .94$.

To investigate the relationship between TSC and affective/cognitive well-being, we first built a simple mediation model involving TSC, aggregated affect, and life satisfaction. Results showed that the positive relationship between TSC and life satisfaction was partially mediated via aggregated affect, as the total indirect effect was strongly significant, $\beta = .08, p = .007$.

In a next step, we added conflict between the experienced desire and other goals as an explanatory variable for the link between TSC and aggregated affective well-being. The results for the full path analysis conflict are presented in Figure 2. As expected, lower levels of desire-goal conflict among those high in TSC partially accounted for the positive relationship between TSC and aggregated affect, $\beta = .05, p = .028$. Furthermore, the indirect effect from TSC to life satisfaction via desire-goal conflict and momentary affect was reliable, $\beta = .02, p = .043$. A final supplementary mediation analysis including stress indicated that stress partially accounted for the link between conflict and momentary affect, $\beta = -.10, p = .011$, with conflict retaining a unique residual effect on momentary affect, $\beta = -.20, p = .005$.

Table 2 Study 2: Descriptive Statistics, Reliability, and Intercorrelations for Trait and Aggregate Measures

Variable	M	SD	1	2	3	4
1. Trait self-control	3.06	.59	—			
2. Desire-goal conflict	1.11	.64	-.18	—		
3. Momentary affective well-being	4.68	.64	.30	-.35	—	
4. Momentary stress	0.87	.56	-.13	.41	-.37	—
5. Cognitive well-being (SWLS)	4.75	1.14	.34	.01	.34	-.05

Note. $N = 205$. SWLS = Satisfaction With Life Scale. All correlation coefficients greater than .13 in absolute magnitude are significant at $p < .05$.

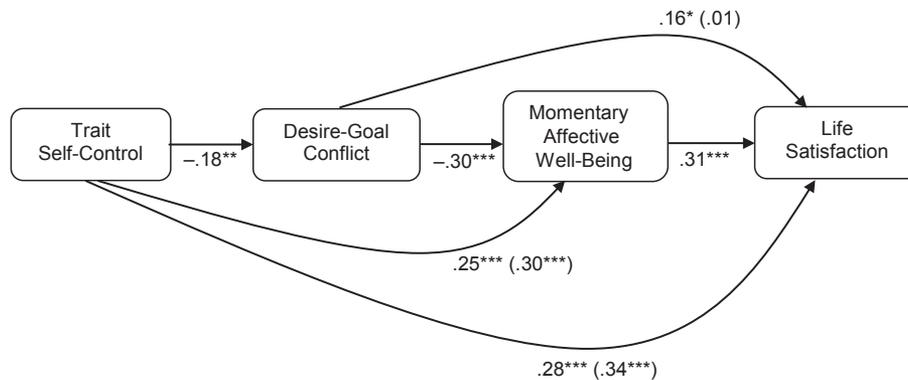


Figure 2 Study 2: Mediation analysis of the effect of trait self-control on cognitive well-being mediated through aggregated desire-goal conflict and momentary affective well-being. Conflict and affective well-being were assessed over the course of one week with experience sampling. Coefficients in parentheses denote total effects; those outside the parentheses denote residual direct effects. * $p < .05$; ** $p < .01$; *** $p < .001$.

Discussion

Study 2 provided much stronger evidence than Study 1 that TSC affects both momentary affect and life satisfaction. Whereas Study 1 measured affect once, Study 2 was able to aggregate participants' reports of their momentary affective states across a week of observations, sampling them randomly across a broad range of daily waking activities (whenever they had desires). People with higher TSC had more positive and fewer negative emotions overall.

Again, and crucially, accumulated (momentary) affect mediated the link between TSC and life satisfaction. These findings suggest that one reason that people with good self-control are generally satisfied with their lives is that they have a relative preponderance of positive affect compared to people with poor self-control as they go about their daily lives. To be sure, the mediation in Study 2 was only partial, as opposed to the full mediation found in Study 1. Partial mediation seems a priori more plausible than full mediation, insofar as there are multiple contributors to life satisfaction, and as we have noted, global life satisfaction and momentary affect have been shown in past work to be separate, distinct constructs. It is possible that the one-shot nature of Study 1's measures allowed the two happiness measures to influence and perhaps slightly contaminate each other, thereby bolstering the apparent correlation between them. Study 2 measured momentary affect on many occasions and life satisfaction on a different occasion.

We also acknowledge the possibility that the partial rather than full mediation occurred because life satisfaction and affect measures referred to different segments of experience. The life satisfaction measure was taken once and involved an appraisal of life as a whole. The momentary affect measures were taken many times—but only when desires were felt. Possibly, including affective states occurring in the absence of current desire could have improved the mediation, though we know of no reason why that should be true.

Study 2 also identified desire-goal conflict and ensuing emotional distress as possible mechanisms for why people low in self-control are less happy than those with high self-control. Conflict and its effect on stress partially mediated the link between TSC and affective well-being. This fine-grained analysis suggests that high self-control may facilitate momentary happiness by helping people behave in ways that reduce mental conflict and thus prevent emotional distress. One possible explanation is that people with good self-control proactively navigate their world in ways so as to avoid temptation through situation and stimulus control (Hofmann, Baumeister, et al., 2012), preventing conflict from occurring in the first place. A second, complementary, possibility is that individuals high in self-control deal more effectively with the motivational conflicts they encounter. In other words, people good at self-control may manage to strike a better balance between mutually incompatible motivations and therefore experience less conflict and more happiness as they go about juggling their various inclinations and goal strivings. Bad self-

controllers, in contrast, may fall short of striking their ideal balance more often, leading to adverse consequences for feelings and life satisfaction. The final study was specifically designed to test this proposed goal-balancing effect.

STUDY 3: STRIKING THE RIGHT BALANCE

Study 2 found that perceived conflict was a substantial component of the links among TSC, momentary emotional states, and life satisfaction. Building off of prior work (Hofmann, Baumeister et al., 2012), we found that one reason that people high in TSC reported greater well-being was that they had fewer conflicts between their current desires and their other goals. This helped them experience less stress and more positive emotion than people with low TSC, accounting for the improvement in life satisfaction.

Study 3 pursued the issue of motivational conflict and examined conflict between goals. Participants identified various important conflicting goals in their lives and then rated aspects of these goals and conflicts. Pursuing and achieving goals is undoubtedly an important source of happiness, but many goals conflict with each other—so that achieving one detracts from achieving another. One of the core functions of self-regulation is to adjudicate among competing goals, such as deciding which one gets priority (Carver & Scheier, 1981; Higgins, 1996). Therefore, it seemed plausible that one benefit of high TSC would be skill and success at managing goal conflicts. Study 3 tested that hypothesis in several ways. First, we predicted that people high in TSC would report more success than others in resolving their goal conflicts in the optimal manner. Second, we predicted that they would encounter goal conflicts less frequently. The latter hypothesis was based on the recently emerging view that one important benefit of high self-control lies in setting up one's life to prevent or minimize motivational conflict (Baumeister & Tierney, 2011; de Ridder et al., 2012; Hofmann, Baumeister, et al., 2012).

In the context of the present investigation, we reasoned that effective management of conflicting goals would be an important contributor to happiness and life satisfaction. Someone who failed to manage goal conflicts effectively might lurch from one activity to another, undoing efforts to reach one goal by pursuing another and then also failing to achieve that one because of switching to yet another. In contrast, someone with good self-control might maintain focus on the more important goal even when tempted to set it aside so as to pursue something else. Long-term well-being, as reflected in measures of life satisfaction, therefore should be facilitated by the use of good self-control to effectively manage goal conflicts. Study 3 was designed to test this hypothesis using mediational analyses.

Not all goal conflicts are created equal, of course. We distinguished two major types (along a continuum) that would need to be resolved in different ways. Participants rated each

goal as to whether satisfying that goal would entail doing a “good” versus a “bad” thing. For each pair of goals in conflict, we then calculated the difference between each goal’s evaluation on that dimension. One type of goal conflict, indicated by small or no difference, would be a conflict between two goals that were essentially equally valued. For example, many people struggle with work-family conflicts, insofar as obligations to perform one’s job may conflict with family duties and obligations, and both job and family are highly valued. Self-control in those circumstances is difficult because one does not easily know what is the right thing to do and must therefore come up with a basis for deciding not to do one thing in order to do something that is nearly equally important.

The second type of goal conflict is between two goals of substantially different value. We label these “vice-virtue conflicts” because by the person’s own ratings, the choice is between doing something good and doing something (relatively) bad. These conflicts do not have the problem that plagues the equal goal conflicts because the person easily discerns what is better to do (i.e., do good rather than bad). The difficulty presumably lies elsewhere, in that the temptation to do the bad thing is linked to impulses and desires that are perhaps highly alluring. Familiar examples—desires to smoke tobacco, eat delicious high-calorie foods, or drink too much alcohol—may conflict with healthy lifestyle goals. At the moment of decision, the bad desire may be felt much more keenly than the virtuous one, and self-control somehow has to find some basis for performing the less immediately appealing action.

We reasoned that self-control is a tool more than a reason, and so it should be more helpful with vice-virtue conflicts than with conflicts between equally valued goals. That is, self-control should be useful in helping oneself to resist temptation so as to pursue the path of virtue. With conflicts between equal goals, self-control may be of little or no help because the challenge is to come up with reasons rather than to resist temptations.

Method

Participants. Two hundred thirty-four adults (61% female; $M_{\text{age}} = 34.53$ years, $SD = 11.98$) completed the study online in return for monetary compensation.

Procedure. Participants were instructed to identify three important goal conflicts that they routinely experience. Nineteen goal domains, derived from a recently developed goal taxonomy (Stauner, Stimson, & Ozer, 2011) as well as common goals as reported in a recent study (Hofmann, Vohs, & Baumeister, 2012), were provided as examples (see Appendix A). Participants then answered questions about each goal conflict and provided information on how they balance between goals. Lastly, they completed trait measures pertaining to self-control and happiness.

Goal Conflict Measures. For each goal conflict, participants rated the extent to which the goals conflict with one another (1 = *not at all*; 7 = *very*) and the frequency with which they conflict (1 = *less than once per month*; 7 = *more than 3 times per day*). Participants evaluated each of the opposing goals in terms of whether they imply doing a “good or bad thing” (1 = *bad*; 7 = *good*). We computed an evaluative difference score for each goal conflict by subtracting the score for the more negatively evaluated goal from the score for the more positively evaluated goal. Thus, evaluative difference scores ranged from 0 (equal goal conflict) to a maximum of 6 (indicating a very strong vice-virtue conflict).

Balancing Measures. Participants rated how much during the past week they pursued one goal versus the other (−3 = *always followed goal 1*; 3 = *always followed goal 2*) as well as how they would ideally pursue each goal in relation to the other goal (−3 = *always follow goal 1*; 3 = *always follow goal 2*), with a value of zero indicating equal time pursuing both goals. We calculated an *ideal-actual balancing score* by (a) recoding conflicts with an evaluative difference score greater than zero such that positive values indicate pursuit in favor of the more positively valued (i.e., “good”) goal, and by (b) subtracting the ideal balancing score from the actual balancing score. Thus, the closer to zero, the more participants reported pursuing goals in tune with how they would ideally like to pursue these competing goals. Positive values on the discrepancy measure indicate that the more positively evaluated goal is pursued more often than is considered ideal, whereas negative values indicate that the more negatively evaluated goal is pursued more often than is considered ideal.

After information on all three goals was provided, participants completed an overall rating of balancing by rating how happy they are with their overall ability to balance goal conflicts on a scale from 1 (*not at all happy*) to 7 (*very happy*). A multilevel analysis confirmed that this summary rating reflected well the average of participants’ ideal-actual balancing scores measured at the goal conflict level, $r = .65, p < .001$.

Trait Measures. As in Study 1, affect was assessed with the PANAS (Watson et al., 1988; $\alpha = .81$). Participants also completed the Satisfaction With Life Scale (Diener et al., 1985; $\alpha = .93$) and the Brief Trait Self-Control Scale (Tangney et al., 2004; $\alpha = .84$).

Results

Descriptive Data. Participants reported on three experienced conflicts, yielding a total of 702 conflicts. Of these, 45 were judged to be nonsensical by two independent raters. Therefore, 657 conflicts were retained for analyses. The mean evaluative difference per goal conflict was 1.98 ($SD = 1.82$), meaning that the two goals mentioned were, on average, about two points apart on the value scale. About a third of the conflicts ($n = 193$;

Table 3 Study 3: Multilevel Analyses Probing the Relationship Between TSC and Magnitude of Goal Conflict, Conflict Frequency, Goal Evaluation Difference, and Balancing

Variable	B	SE	p	Low TSC Mean	High TSC Mean
Magnitude of conflict	-.07	.10	.459	5.53 _a	5.43 _a
Conflict frequency	-.22	.10	.022	4.51 _a	4.19 _b
Evaluation difference	-.27	.11	.016	2.17 _a	1.78 _b
Balancing discrepancy	.33	.12	.007	-.75 _a	-.27 _b
Actual balancing	.38	.10	<.001	-.19 _a	.36 _b
Ideal balancing	.06	.09	.523	.55 _a	.64 _a

Note. $N = 234$ participants (Level 2). TSC = trait self-control. The number of analyzed goal conflicts on Level 1 was 657. Low and high TSC outcomes were estimated at one standard deviation below and above the mean of TSC, respectively. Estimated row means with different subscripts a and b differ at $p < .05$.

29.4%) were between goals that participants rated as equally good or bad (i.e., a difference of zero).

TSC and Goal Conflict. Because goal conflicts were nested within participants, we used multilevel modeling (e.g., Hox, 2010). Level 1 (goal conflict level) was composed of ratings of extent of conflict, conflict frequency, value of each goal, and ideal-actual discrepancy of goal balancing. Level 2 (person level) was composed of TSC (grand-mean centered). High- and low-TSC individuals did not differ with regard to the average self-reported magnitude of goal conflict, indicating that both high- and low-TSC individuals followed instructions equally and reported strong conflicts that were comparable in magnitude (Table 3).

As predicted, TSC was associated with the frequency with which the conflict was experienced, with high (+1 standard deviation) TSC individuals reporting that the conflicts they mentioned occurred less frequently on average than the conflicts mentioned by low (-1 standard deviation) TSC individuals. High-TSC individuals reported fewer vice-virtue conflicts on average, as indicated by the negative regression coefficient relating TSC to the evaluative difference score (Table 3). Taken together, this pattern of findings provides evidence that people high in TSC experience fewer goal conflicts overall, and, among those, fewer instances of vice-virtue conflicts.

TSC and Balancing. Balancing refers to how the person handles goal conflict. TSC predicted that high-TSC individuals would indicate balancing behavior that was closer to their ideals than would low-TSC individuals (Table 3). To investigate whether this effect depended on the type of goal conflict, we analyzed how TSC and goal evaluation differences interact to predict balancing discrepancy scores. To do so, we entered goal evaluation difference as a Level 1 continuous predictor and modeled its cross-level interaction with TSC as a Level 2 predictor. The average balancing discrepancy score (at the mean of TSC and goal value differences) was negative, $B = -.49$, $p < .001$, indicating that, on average, more negatively evaluated goals were pursued more often than people considered ideal. The conditional main effect of TSC on balancing discrepancy (at the mean level of goal value differences) was $B = .24$, $p = .052$, and the conditional main effect of goal value differ-

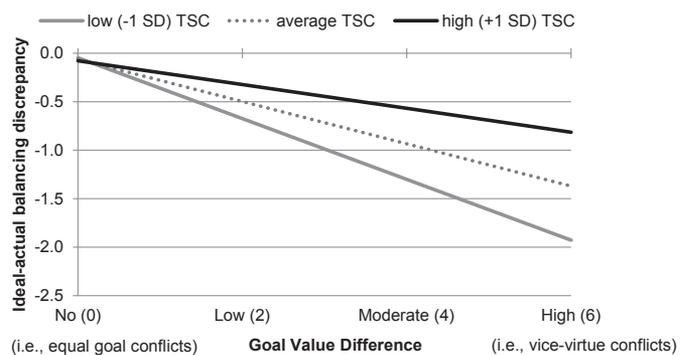


Figure 3 Study 3: TSC and the management of goal conflicts. The graph shows the moderator effect of trait self-control on the relation between goal value differences (no = equal goal conflict; 6 = highest possible value asymmetry, i.e., “vice-virtue” conflict) and how much people report their actual way of balancing is close to ideal (discrepancy of zero) versus less than ideal (i.e., increasing negative discrepancy scores).

ences on balancing discrepancy (at the mean level of TSC) was $B = -.22$, $p < .001$. Most important, there was a significant Evaluation Difference \times TSC interaction, $B = .13$, $p = .013$, indicating that differences between high- and low-TSC individuals became more pronounced as goal evaluation differences increased (Figure 3). Among people low in TSC, larger deficiencies in balancing goal conflicts were found to the extent the goals differed in value (i.e., vice-virtue conflicts). We used simple slope testing to estimate the effect of TSC at four levels of increasing goal evaluation differences: 0 (indicating equal goal conflict), 2, 4, and 6 (indicating low, moderate, and strong value differences between goals). The difference between high- and low-TSC individuals was negligible for equal goal conflicts, $B = .02$, $p = .90$, whereas it became increasingly pronounced for low, moderate, and high evaluative differences (low: $B = .24$, $p = .048$; moderate: $B = .50$, $p < .001$; high: $B = .76$, $p < .001$). Thus, the advantage of high TSC was mainly found with vice-virtue conflicts.

Because balancing scores reflect the difference between actual and ideal balancing, it was possible that either actual or ideal scores could account for the effects of TSC. Does high TSC entail changes to ideal standards or to actual behavior?

Our findings point to the latter. There was no effect of TSC on how people ideally wished they would handle goal conflicts, $B = .06, p = .52$. In contrast, TSC was associated with better actual balancing (e.g., pursuing virtue rather than vice), $B = .38, p < .001$. Thus, it seems that people with high TSC have a better fit between how they actually manage multiple goals and how they ideally would like to manage multiple goals, which is achieved by adjusting their behavior to favor the virtuous goals over the vices.

TSC, Overall Balancing Performance, and Cognitive and Affective Well-Being. On the level of zero-order correlations at the person level, as expected, higher TSC was associated with higher self-reported balancing performance, and with higher levels of affective positivity and life satisfaction (see Table 4). To investigate whether balancing performance accounts for at least parts of the relation between TSC and life satisfaction, and whether the possible link between balancing performance and life satisfaction can further be accounted for via positive and negative affect, we performed a path analysis in Mplus (Muthén & Muthén, 2004). Variables were z-transformed prior to analysis. Again, indirect effects were estimated based on 5,000 bootstrapping samples.

As can be seen in Figure 4, the overall total effect of TSC on life satisfaction was significant, $\beta = .35, p < .001$. Balancing performance partially mediated this effect, $\beta = .15, p < .001$

for the total indirect effect. The relationship between TSC and life satisfaction was further accounted for by considering positive and negative affect as proximal mediators (see Study 1). Specifically, both positive and negative affect mediated the effect from TSC to life satisfaction, via balancing performance (total indirect effect for positive affect: $\beta = .012, p = .056$; total indirect effect for negative affect: $\beta = .028, p = .005$). In addition, negative affect, $\beta = .070, p = .008$, but not positive affect, $\beta = .015, p = .158$, accounted for additional variance in the relation between TSC and life satisfaction that was not mediated via balancing performance.

Discussion

Study 3 investigated the positive effect of trait self-control on well-being via its effect on reducing and managing goal conflict. Although people at different levels of TSC reported much the same difficulties and intensities of goal conflicts, they differed as to frequency and type. High TSC was associated with fewer vice-virtue conflicts. Thus, people high in TSC seem less prone to find themselves in circumstances in which they are tempted to do bad things and must exert themselves to resist those temptations.

Moreover, and crucially, high TSC was associated with a relatively lower reported frequency of experiencing goal conflicts. Further supplementary analyses showed that conflict frequency was not related to positive affect, $B = .00, p = .97$, but it was significantly related to negative affect, $B = .23, p = .001$, as well as to life satisfaction, $B = -.16, p = .019$. Again, one interpretation of this finding is that people use self-control to set up their lives so as to avoid problems. It is presumably impossible to organize one’s life so that goals never conflict. (Sure enough, none of our participants said they never experienced goal conflicts, or balked at listing three recurrent ones.) But someone with good self-control can apparently manage his or her life so that these conflicts arise relatively infrequently. These findings provide further support for the view that good self-control facilitates managing one’s life so as to avoid and minimize problems.

Table 4 Study 3: Descriptive Statistics, Reliability, and Intercorrelations for Trait Measures

Variable	M	SD	1	2	3
1. TSC	3.30	.73	—		
2. Overall satisfaction with balancing	4.10	1.39	.27	—	
3. Affective well-being (PANAS)	3.86	1.65	.35	.50	—
4. Cognitive well-being (SWLS)	3.49	.67	.35	.58	.57

Note. $N = 234$. TSC = trait self-control; PANAS = Positive and Negative Affect Scales; SWLS = Satisfaction With Life Scale. All correlation coefficients are significant at $p < .001$.

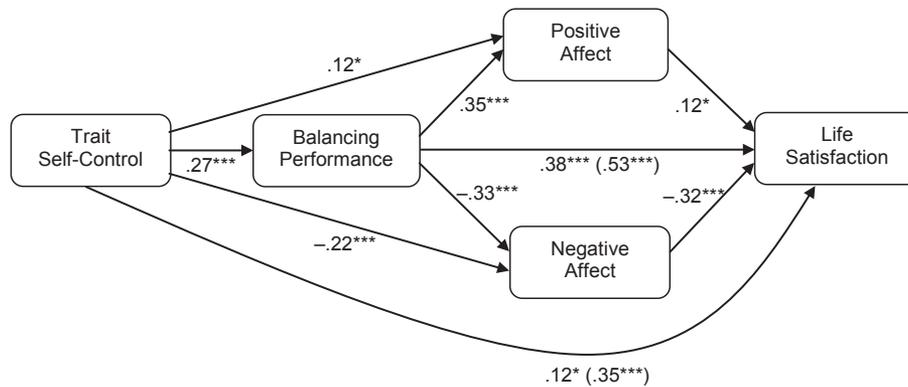


Figure 4 Study 3: Mediation effect of trait self-control on life satisfaction via overall balancing of important goal conflicts, and positive and negative affect. * $p < .05$; ** $p < .01$; *** $p < .001$.

Further benefits of self-control emerged when we asked participants to rate how they usually managed each conflict and how they ideally wished they would manage it. The gap between ideal and reality was considerably smaller for people with high as compared to low TSC. These findings dovetail well with laboratory findings on state self-control, which typically find that as the capacity for self-control becomes depleted, behavior tends to shift toward the less optimal, more impulsive sort (e.g., Baumeister, Bratslavsky, Muraven, & Tice, 1998; Hofmann, Rauch, & Gawronski, 2007; Vohs & Heatherton, 2000). Put more simply, people with high TSC are better than others at balancing goals that are in conflict.

Study 3 also found that effectiveness at managing goal conflict (as indicated by relatively small ideal-actual discrepancies in reports of how one dealt with conflicting goals) partly mediated the link between TSC and happiness. Specifically, high TSC contributed to good balancing of conflicting goals, which in turn led to high life satisfaction. We did also find that positive and negative affect (especially the latter) improved the mediation. The implication is that one way in which TSC contributes to life satisfaction is by improving management of goal conflict and thereby improving one's momentary affective experiences.

As predicted, we also found that TSC interacted with the type of goal conflict. People at different levels of TSC did not show any discernible differences as to how well they reported balancing equally valued goals. As the gap between the valuation of the two goals widened, however, TSC had a stronger and stronger impact. High levels of TSC thus mainly helped people deal effectively with vice-virtue conflicts. We had theorized that self-control is useful for doing what one knows is right when tempted to do otherwise—rather than for finding reasons to choose between two equally valued goals. The findings clearly supported that prediction.

GENERAL DISCUSSION

In recent years, an increasing volume of research has established assorted benefits of good self-control for educational and occupational success, interpersonal relationships, mental and physical health, socially desirable behavior, personal adjustment, and longevity (Baumeister & Tierney, 2011; de Ridder et al., 2012; Moffitt et al., 2011; Tangney et al., 2004). But does self-control make you happy? Existing theories might predict people would be happier with either more or less self-control—or they might predict no difference. Prior empirical work had remained largely mute as to that question.

The present series of studies offers a tentative answer: High self-control does make you happy. We measured both momentary affect and life satisfaction. The former refers to how positively one feels right now (or aggregates thereof), whereas the latter refers to an integrative appraisal of how one regards and evaluates one's life as a whole. Across all three studies, TSC was positively related to both measures. Contrary to the Puritan hypothesis and other views of self-control as grim sacrifice and

stern self-discipline, people with high TSC typically felt better than others even in the present moment, as well as being more satisfied with their lives in general. Study 2 was particularly enlightening in this regard because it collected and analyzed reports of how people felt at a great many randomly chosen moments as they went about their daily lives. Thus, it is not simply that people with higher, versus lower, TSC are in a better mood when taking time out from their daily activities to reflect on life as a whole by filling out a questionnaire. We asked them to report their mood as part of a larger investigation on desire, so it is particularly notable that high-TSC people were in a better mood even when experiencing longing, a signal of an unfulfilled need.

We found, also, that the benefits of high self-control in terms of momentary affect were associated with life satisfaction. Our most rigorous and extensive data (Study 2) found that momentary affect partly mediated the relationship between TSC and life satisfaction. The finding of partial rather than full mediation should not be surprising. Almost certainly, there are multiple pathways by which self-control produces greater satisfaction with life, including better interpersonal relationships, better health, and better achievement. But improving one's mood on a regular basis seems to be one important pathway from exerting good self-control to being well satisfied with your life in general.

Study 2 was also consistent with the hypothesis that goal conflict and its effects on stress are one important mechanism by which individual differences in TSC translate into momentary affect. Experiencing more frequent goal conflicts drains momentary happiness presumably because inner mental turmoil is an aversive, stressful state that signals to the individual that the current state of affairs is suboptimal (Emmons & King, 1988). Even though conflict can trigger more effortful thinking, which can lead to successful resolution of the conflict (Hofmann, Baumeister, et al., 2012), it is still an aversive mental state. Studies 2 and 3 both showed that high-TSC individuals experience relatively fewer instances of such conflicts, presumably through proactive strategies or habits of situation and stimulus control.

Avoiding motivational conflict is not always possible, however. Study 3 was designed to test how well people high versus low in self-control balance their existing goal conflicts. High-TSC individuals clearly outperformed low-TSC individuals in finding a proper balance when it came to managing vice-virtue conflicts. Their advantage apparently came from altering their behavior to conform to their ideals rather than lowering their self-standards. This, presumably, is precisely what self-control is for, namely, to make oneself do what is best in the long run rather than yielding to costly temptation. We also found that better balancing of goal conflict, as in resolving those conflicts in favor of virtue rather than vice, was related not only to higher life satisfaction but also to higher affective well-being. This too contradicted the Puritan hypothesis.

These conclusions have to be interpreted in light of the fact that our data were correlational and therefore do not allow

causal claims. While it is plausible that TSC contributes to subjective well-being, we cannot rule out that subjective well-being has a causal effect on TSC. In fact, studies suggest that subjective well-being can predict life outcomes. For instance, frequent positive affect is prospectively associated with better health, higher income, marital stability, and occupational success (Diener & Chan, 2011; Lyubomirsky, King, & Diener, 2005). Similarly, high life satisfaction is prospectively associated with an increased likelihood to get married and become parents and with a decreased likelihood to become unemployed or separate from one's spouse (Luhmann, Lucas, Eid, & Diener, 2013). It is plausible that TSC is an important mechanism that explains the link between subjective well-being and these kinds of positive life outcomes. Specifically, subjective well-being might serve as an emotional resource that boosts people's capacity for self-control by diminishing its depleting effects. Experimental work has shown that positive emotion can improve self-control performance (Tice, Baumeister, Shmueli, & Muraven, 2007). Therefore, an important avenue for future research is to establish the (possibly bidirectional) causal relationship between TSC and subjective well-being in longitudinal and experimental studies.

CONCLUSION

Many people search for the key to happiness and satisfaction with life. We guess that many searchers overlook self-control because its reputation is associated with drudgery and self-denial rather than with pleasure and joy. Yet, our data clearly indicate that people who have more trait self-control feel happier and are gladder about their life. We also found that many benefits of high self-control are linked to handling and avoiding conflicts among goals. The person with high trait self-control regulates daily life so as to avoid some goal conflicts, through planning and proactive control (prudence). The person who sets up life and its routines to avoid inner conflict between goals is better off in the sense that he or she ends up feeling fewer bad emotional states and is generally happier. Nonetheless, trait self-control does not prevent conflict, even relatively severe conflict. Everyone has conflicts, but having more trait self-control reduces their frequency and enables one to manage them better. This effect was especially true of vice-virtue conflicts, which are at the heart of many daily dilemmas that will add up over time. Thus, having good trait self-control cannot get one out of all difficulties, but it provides the wherewithal to do the right thing.

In conclusion, trait self-control was positively related to happiness and life satisfaction, an effect that was observed across samples and methods. This robustness suggests that one way to use self-control is to improve one's well-being.

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APPENDIX A

Goal Domain Examples Provided in Study 3

Perform well at college/school, lose weight/get in shape, find a partner/get married, socialize, help others/be a good person, perform well at work, play sports/exercise, save money, follow religious tenets, gain power/recognition, remain abstinent from a drug, end a drug dependency, remain faithful to partner, seek variety/stimulation, eat great-tasting food, enjoy life/have fun, purchase new items, satisfy sexual desire, pursue leisure/relaxation

APPENDIX B

Goal-Related Items Used in Study 3

Goal Conflict

Think closely about the conflict between your goals to [Goal 1] and to [Goal 2]. To what extent do these two goals conflict with one another for you?

Goal Conflict Frequency

How often do you experience this conflict between your goals to [Goal 1] and to [Goal 2]?

Goal Value

To what extent do you think that pursuing [Goal 1/Goal 2] implies doing a good thing?

Actual Balance

Think back to this past week. How much did you tend to pursue your goal to [Goal 1] versus your goal to [Goal 2]?

Ideal Balance

Next, think about how you would ideally like to spend your time. How often would you pursue your goal to [Goal 1] versus your goal to [Goal 2]?

Overall Balancing Performance

Thinking back to the goal conflicts you reported, how happy would you say you are at your ability to balance your goal conflicts OVERALL?