High Self-Control Individuals Prefer Meaning over Pleasure

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The link between self-control and success in various life domains is often explained by people avoiding hedonic pleasures, such as through inhibition, making the right choices, or using adaptive strategies. We propose an additional explanation: High self-control individuals prefer spending time on meaningful activities rather than pleasurable ones, whereas the opposite is true for individuals with high trait hedonic capacity. In Studies 1b and 1b, participants either imagined ($N = 449$) or actually engaged in activities ($N = 231$, pre-registered) during unexpected free time. They then rated their experience. In both studies, trait self-control was positively related to the eudaimonic experience (e.g., meaning) of activities and unrelated to their hedonic experience (e.g., pleasure). The opposite was true for trait hedonic capacity. Study 2 ($N = 248$) confirmed these findings using a repeated-choice paradigm. The preference for eudaimonic over hedonic experiences may be a key aspect of successful long-term goal pursuit.

Keywords: self-regulation, motivation, goals, personality

Many people pursue personal goals such as to stay fit, be successful in their career, or lead healthy relationships. All these goals have in common that their achievement or maintenance requires repeated steps of action which involve some level of mental or physical effort (Duckworth, 2011; but see Gillebaart & De Ridder, 2015). Research on self-control has long studied what makes individuals successful in the pursuit of these types of goals and claimed that people with high *trait self-control* are particularly good at initiating goal-directed action, being persistent, and inhibiting impulses directed at immediate gratification (Hoyle & Davisson, 2016; Tangney et al., 2004). But perhaps self-control is less about what people do and rather about how they want to feel. Here we propose and show that trait self-control is associated with a preference for doing things that feel meaningful over things that are just fun or comfortable. This preference may contribute to high self-controlled individuals' success in various areas of life, such as work or studies, finances, romantic relationships, and health (de Ridder et al., 2012; Duckworth et al., 2019; Moffitt et al., 2011).

Early conceptualizations defined self-control as an inherent capacity that allows people to delay gratification (Mischel et al., 1989), inhibit impulses (Hofmann et al., 2009), and control unwanted desires or temptations (Kotabe & Hofmann, 2015; Tangney et al., 2004). More recent conceptualizations center around motivational explanations and assume that self-control is not about the constant inhibition of desires but rather about choosing what is the most valuable behavior within a given situation and moment (Berkman et al., 2017; Sullivan et al., 2015). This might be the option that maximizes future rewards (e.g., exercise), or an option that maximizes well-being in the present (e.g., relax on the sofa). Other argue that self-control is about having the right habits or strategies in place that support goal-directed action (Adriaanse et al., 2014; Galla & Duckworth, 2015; Hennecke & Bürgler, 2020). For example, individuals with high self-control may avoid the sweet aisle in the supermarket to stick to their diet goals or study in the library to avoid getting distracted. Rather than sticking through difficult situations, they structure their environment in a way that

makes goal pursuit not only more successful but also feel effortless (Gillebaart & De Ridder, 2015).

The feeling of effort was long an essential aspect of various definitions of self-control (Duckworth, 2011) and sometimes even equated with it (e.g., 'control effort', Hofmann & Kotabe, 2012). This is perhaps also why self-control research has focused on effort as a (negative) feeling associated with the pursuit of long-term goals. However, the pursuit of goals can also be accompanied by positive feelings, especially when things go well. For example, making progress towards goals generates positive affect, especially if the rate of progress exceeds individuals' expectations (Carver & Scheier, 1990). Further, research in the eating domain shows that making difficult healthy choices generate feelings of pride, as long as people appraise their choice as an act of self-control (Becker et al., 2019). Lastly, research in positive psychology shows that pursuing activities for eudaimonic (versus hedonic) motives feels meaningful and valuable (Huta & Ryan, 2010). Eudaimonic motives are defined as seeking to use and develop the best in oneself or acting in accordance with one's principles, which is conceptually related to the pursuit of personal goals. Hedonic activities, those that are pursued for pleasure or comfort, are more strongly associated with positive affect and less with meaning (Huta & Ryan, 2010). In summary, these lines of research paint a more positive picture of how people might experience the (successful) pursuit of their personal goals.

We argue that people with high self-control are more oriented towards these eudaimonic experiences: Given a free choice, people with high self-control are more likely to choose activities that feel meaningful or valuable over activities that are "just" fun. If this preference exists (and we will show that it does), then a different picture of people with high self-control emerges: They are not individuals who are good at avoiding pleasure, but who prefer feelings of meaning and higher-order value instead (i.e., eudaimonic experiences). Although the self-control literature assumes that people in general prefer hedonic pleasures and struggle to avoid them for the sake of future rewards, some people may prefer the 'high

road' to begin with. This could in addition to other mechanisms like habits and strategies also explain why self-control feels effortless for them (Gillebaart & Schneider, 2024). Crucially, this preference might provide them with an additional advantage for successful goal pursuit by motivating goal-directed action. In this regard, the preference could be a consequence of high self-control but also a precursor.

While individuals with high trait self-control prefer eudaimonic experiences others may prefer hedonic experiences. Indeed, research suggests that people also differ in their capacity to enjoy "simple pleasures". People high in *trait hedonic capacity* are more successful in deriving pleasure from hedonic activities because they are less likely to experience intrusive thoughts about conflicting long-term goals (Bernecker & Becker, 2021). Trait hedonic capacity is not only independent of trait self-control but also serves as independent predictor of well-being (Bernecker & Becker, 2021). Building on these findings, we aimed to examine whether trait hedonic capacity is associated with a preference for activities that are pleasurable (rather than meaningful). For instance, people high in trait hedonic capacity may prefer reading a novel for enjoyment over reading the newspaper to broaden their knowledge. This idea is supported by some initial empirical evidence: In an experience-sampling study, students with higher trait hedonic capacity considered more of their daily activities as "leisure/pleasure" than "work/effort" (Bernecker et al., 2023). The opposite was the case for trait self-control, which predicted a higher percentage of daily activities being considered as "work/effort". However, a limitation of this study was that participants were asked to make a discrete choice between "work/effort" or "leisure/pleasure", which neglects the possibility that an activity could potentially be both (Guobyte et al., 2023; Huta & Ryan, 2010). Further, the results cannot be clearly attributed to people's motivational preferences because they might engage in activities due to external demands (e.g., work hours, social obligations). The present research addresses both limitations by giving people a free choice of how they want to spend unexpected time.

The Present Research

Three studies examined whether trait self-control and trait hedonic capacity predict whether people prefer eudaimonic or hedonic experiences. In Study 1a, participants made hypothetical choices on how to spend a few hours of unexpected time. In Study 1b, participants actually spent one hour as they preferred. In both studies, participants reported what they did and rated their expected/actual eudaimonic and hedonic experiences. In Study 2, participants repeatedly chose between activities based on the experience they would provide (e.g., eudaimonic vs. hedonic). In the context of these studies, where people engaged in relatively mundane activities, eudaimonic experiences refer to a feeling of purpose or value of the activity, rather than a feeling of connection with the world or others.

Study 1a was exploratory. In Study 1b (https://aspredicted.org/7ggj-nm9s.pdf)[1], we pre-registered a positive relationship between trait self-control and eudaimonic experiences (H1), and between trait hedonic capacity and hedonic experiences (H2). In Study 2 (https://aspredicted.org/6dy2-qpn2.pdf), we pre-registered that higher trait self-control is associated with a preference for eudaimonic (over hedonic) activities (H1), and higher trait hedonic capacity with a preference for hedonic (over eudaimonic) activities (H2). All study materials, data, and code are available on the Open Science Framework: https://osf.io/k672f/.

Studies 1a and 1b

Both studies tested if people with high trait self-control prefer spending time with meaningful activities, while those with high trait hedonic capacity prefer pleasurable ones. Since Study 1b replicates Study 1a conceptually, we will present methods and results for both studies in parallel.

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[1] Diverging from the pre-registration, we changed the order of hypotheses and renamed 'hedonic value' to 'hedonic experience' and 'long-term value' to 'eudaimonic experience' to align with prior research on the positive experience of activities (Huta & Ryan, 2010). There is a typo in the amount of time granted for activities, which should read 60 minutes instead of 6045 minutes.

Method

Samples

Sample descriptions and characteristics for both studies are provided in Table 1.

Table 1

Sample Descriptions and Characteristics for Studies 1a, 1b, and 2

Study	Sample Size	Gender Distribution	Age M(SD)	Age Range	Recruitment Platform	Language Requirement	Attention Check	Power (1-β)
1a	449	216 male, 225 female, 8 na	45.95 (15.61)	18 to 74	Respondi	Fluent in German	Yes	.99
1b	231	116 male, 111 female, 4 diverse	32.62 (10.43)	19 to 73	Prolific	Fluent in German	Yes	.96
2	248	120 male, 124 female, 4 diverse	34.27 (11.11)	21 to 74	Prolific	Fluent in German	Yes	.99

Note. Power is determined based on a small effect of $f^2 = .05$, $\alpha = .05$.

Procedures

In Study 1a, participants were asked to imagine having a few hours of unexpected time and were asked what they would choose to do (Rodriguez et al., 2021). They could name up to 4 activities (1: $n = 449$, 2: $n = 374$, 3: $n = 316$, 4: $n = 221$).

In Study 1b, participants had 1 hour of unexpected time. They were instructed:

You now have 60 minutes at your free disposal. This time is part of the 75 minutes of the study and is therefore fully compensated. During this time, you can do whatever you feel like doing (e.g., reading, watching TV, eating) and/or whatever needs to be done (e.g., housework, phone call, work).

They were asked to set a timer and then return to the survey. To match Study 1a, they could report up to 4 activities (1: $n = 224$, 2: $n = 218$, 3: $n = 192$, 4: $n = 138$). Seven participants did not return before the survey timed out.

Measures

Activity experience. Participants rated each activity on 2 items that reflected the *hedonic experience* (i.e., "How pleasant/pleasurable is/was the activity?", Guttman reliabilities λs > .82/.86) and 2 items that reflected the *eudaimonic experience* of the activity (i.e., "How meaningful/valuable is/was the activity", Guttman reliabilities λs > .78/.84). Items were rated on a 7-point Likert scale from 1 = *not at all* to 7 = *very much*.

Trait self-control. We assessed trait self-control with the Brief Trait Self-Control Scale (Bertrams & Dickhäuser, 2009; Tangney et al., 2004), which consists of 13 items (e.g., "I am good at resisting temptation") rated on a 5-point scale from 1 = *not at all* to 5 = *very much* (Cronbach's α = .81/.86). Higher scores on the overall scale reflect higher trait self-control.

Trait hedonic capacity. Trait hedonic capacity was assessed with the Trait Hedonic Capacity Scale (Bernecker & Becker, 2021). The scale was validated in a series of laboratory and field studies and consists of 10 items measuring *hedonic success* (e.g., "I am good at pursuing my desires") and the experience of *intrusive thoughts* (e.g., "I often think about my duties even while I am enjoying a good moment", reverse coded). Items were rated on a 5-point scale from 1 = *not at all* to 5 = *very much* (Cronbach's α = .86/.89). Higher scores on the averaged scale reflect higher trait hedonic capacity.

Post-decision satisfaction. Only in Study 1b, we used 7 items to assess how people felt about how they had spent their overall time (i.e., guilt, regret, remorse, dissatisfaction, satisfaction, joy, pride, 1 = *not at all* to 5 = *very much*).

Results

Descriptive Analyses

From participants' responses, we identified and coded the 22 most named activities in Study 1a. In Study 1b, we had to add 6 categories not named in Study 1a (with 3 categories of

Study 1a not being mentioned in Study 1b; see *Table S1* and *S2*). The categories covered 80.3% of activities named in Study 1a and 97.3% in Study 1b. Examples of activities scoring highest on hedonic experience were baking, eating, relaxing/recovering, being in contact with family/friends, and taking a walk (in that order). Examples of activities scoring highest on eudaimonic experience were studying/working, gardening, doing household, and exercising.

Table 2 shows the zero-order correlations for Study 1a and 1b. Trait hedonic capacity and trait self-control were positively correlated in both studies, as were activities' hedonic and eudaimonic experience in Study 1a (hypothetical), but not Study 1b (real).

Main Analyses Study 1a and 1b

We will present results of Study 1a and 1b in parallel. Analyses of Study 1a should be regarded exploratory, whereas analyses of Study 1b were confirmatory testing pre-registered hypotheses except for analyses regarding post-decision satisfaction.

Traits and activity experience. First, we ran a multiple regression model predicting individuals' average eudaimonic experience by both traits and controlled for hedonic experience, age, and gender due to the positive association between experiences (see Table 2), and gender differences in trait hedonic capacity (Bernecker & Becker, 2021). All continuous predictors were z-transformed for ease of interpretation. Results are summarized in Table 3. Supporting H1, trait self-control was positively related to individuals' eudaimonic experience in both studies. Trait self-control explained 3% of variance in Study 1a and 5% in Study 1b.

Second, we ran a similar regression model predicting individuals' hedonic experience. Supporting H2, trait hedonic capacity was significantly positively related to individuals' hedonic experience in both studies. Trait hedonic capacity explained 4% of variance in hedonic experience in Study 1a and 3% in Study 1b. In summary, trait self-control and trait hedonic capacity both positively relate to people's eudaimonic versus hedonic experiences in activities chosen to spend unexpected time.

Table 2

Descriptive Statistics and Zero-Order Correlations for Study 1a (N = 449) and Study 1b (N = 231)

	Study 1a		Study 1b					
Variable	*M*	*SD*	*M*	*SD*	1	2	3	4
1. Trait Hedonic Capacity	3.26	0.72	3.08	0.71		.16*	.23**	.12
						[.03, .29]	[.10, .35]	[-.02, .24]
2. Trait Self-Control	3.05	0.59	3.11	0.67	.28**		.03	.28**
					[.19, .36]		[-.10, .16]	[.15, .39]
3. Hedonic Experience	5.73	1.16	4.66	1.15	.27**	.16**		.03
					[.18, .35]	[.07, .25]		[-.10, .16]
4. Eudaimonic Experience	5.36	1.30	5.31	1.15	.19**	.26**	.36**	
					[.10, .28]	[.18, .35]	[.28, .44]	

Note. Correlations for Study 1a are shown below the diagonal and for Study 1b above the diagonal. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014). * indicates $p < .05$. ** indicates $p < .01$.

Table 3

Multiple Linear Regression Models Predicting Activities' Hedonic and Eudaimonic experience for Study 1a (N = 449) and Study 1b (N = 231).

	Hedonic Experience						Eudaimonic Experience					
	b	*95% CI*	*SE*	*t*	β	*p*	*b*	*95% CI*	*SE*	*t*	β	*p*
Study 1a: Hypothetical Activities												
Intercept	5.58	[4.94; 5.69]	0.07	74.62			5.29	[4.57; 5.42]	0.08	62.90		
Age	0.09	[-0.02; 0.20]	0.05	1.65	.08	.101	0.10	[-0.02; 0.22]	0.06	1.66	.08	.098
Gender (male vs. female)	0.27	[0.06; 0.46]	0.11	2.53	.12	.012	0.10	[-0.14; 0.34]	0.12	0.86	.04	.393
Eud./Hed. Experience[a]	0.34	[0.23; 0.44]	0.05	6.38	.29	<.001	0.38	[0.27; 0.50]	0.06	6.38	.29	<.001
Trait Self-Control	0.01	[-0.09; 0.12]	0.05	0.27	.01	.785	0.25	[0.13; 0.36]	0.06	4.15	.19	<.001
Trait Hedonic Capacity	0.26	[0.15; 0.37]	0.05	4.76	.22	<.001	0.08	[-0.04; 0.20]	0.06	1.25	.06	.211
Study 1b: Real Activities												
Intercept	4.74	[4.52; 4.95]	0.11	43.47			5.09	[4.88; 5.30]	0.10	48.78		
Age	0.05	[-0.11; 0.20]	0.08	0.61	.04	.541	0.09	[-0.05; 0.24]	0.08	1.22	.08	.222
Gender (male vs. female)	-0.19	[-0.50; 0.12]	0.16	-1.19	-.08	.234	0.40	[0.10; 0.69]	0.15	2.64	.17	.009
Gender (male vs. diverse)	0.11	[-1.03; 1.26]	0.58	0.19	.01	.847	1.46	[0.37; 2.54]	0.55	2.64	.17	.009
Eud./Hed. Experience[a]	0.01	[-0.15; 0.17]	0.58	0.10	.01	.921	0.01	[-0.14; 0.16]	0.08	0.10	.01	.921
Trait Self-Control	-0.01	[-0.17; 0.15]	0.08	-0.12	-.01	.905	0.26	[0.11; 0.41]	0.07	3.55	.23	<.001
Trait Hedonic Capacity	0.22	[0.07; 0.38]	0.08	2.80	.20	.006	0.09	[-0.06; 0.25]	0.08	1.17	.08	.245

Note. Bonferroni-corrected level of significance, *p* = .005. Gender coded as 0 = male, 1 = female, 2 = diverse. [a] Eud./Hed. Experience refers to hedonic experience in the model predicting eudaimonic experience and vice versa.

Preference versus experience. We explored in Study 1a and tested in Study 1b, whether differences in experiences can be explained by what activity people engaged in (e.g., studying, reading). In a first step, we used the activity coding described earlier and explored whether certain activities were more likely to be chosen by people high or low in trait self-control/trait hedonic capacity. To do that, we tested whether people choosing a certain activity (e.g., reading) had higher or lower than average scores in trait self-control or trait hedonic capacity. We averaged the z-score of trait self-control and trait hedonic capacity for people choosing a certain activity and then tested these scores against $\mu = 0$ (resembling the sample mean) in one-sample *t*-tests. To have sufficient power to find a medium-sized effect ($\beta = .95$, Cohen's $d = .50$), we ran those *t*-tests only for the activities that were mentioned by at least $n = 54$ participants and Bonferroni-corrected the *p*-value accordingly. In Study 1a, none of the 7 tests was significant, *t*s < 1. Likewise in Study 1b none of the 3 tests we ran was significant, *t*s < 1.70. Thus, activities were not associated with certain trait levels.

If the association between traits and experiences cannot be explained by the activity it suggests that people with different trait levels experience the 'same' activity in a different way. To explore that possibility, we subtracted each activities' sample mean in hedonic and eudaimonic experience from individuals' scores. The resulting residual scores captured how much more or less eudaimonic or hedonic an individual rated a certain activity compared to other participants who chose the same activity. We then predicted these residual scores by participants' traits in a fixed-effects multilevel model (i.e., across 1 to 4 activities per individual) using the lme4 package (Bates et al., 2015). To have reliable sample means we excluded activities mentioned by less than 15 individuals, which was the case for 3 activities in Study 1a and 12 activities in Study 1b.

Results of Study 1a showed that people higher in trait self-control rated activities as more eudaimonic than other participants, $b = 0.16$, 95% CI [0.06; 0.26], $SE = .05$, $t = 3.08$, $p = .002$, and so did participants with higher trait hedonic capacity, $b = 0.23$, 95% CI [0.13;

0.34], *SE* = .05, *t* = 4.37, *p* < .001. Participants with higher trait hedonic capacity also rated activities as more hedonic than other participants, *b* = 0.19, 95% CI [0.11; 0.27], *SE* = .04, *t* = 4.49, *p* < .001, whereas trait self-control was not significantly related to this residual score, *b* = 0.08, 95% CI [-0.00; 0.16], *SE* = .04, *t* = 1.88, *p* = .061.

These findings replicated in Study 1b but with a more distinct pattern for both traits: Higher trait self-control was related to higher-than-average ratings of activities' eudaimonic experience, *b* = 0.14, 95% CI [0.03; 0.25], *SE* = .06, *t* = 2.51, *p* = .013 (trait hedonic capacity was not, *b* = 0.11, 95% CI [-0.00; 0.22], *SE* = .06, *t* = 1.90, *p* = .058). Higher trait hedonic capacity was related to higher-than-average ratings of activities' hedonic experience, *b* = 0.21, 95% CI [0.09; 0.34], *SE* = .06, *t* = 3.44, *p* < .001 (trait self-control was not, *b* = 0.09, 95% CI [-0.03; 0.21], *SE* = .06, *t* = 1.44, *p* = 150). In summary, trait self-control and trait hedonic capacity were related to higher-than-average experiences of activities as eudaimonic versus hedonic.

Exploratory Analyses of Study 1b

In Study 1b, we explored whether traits related to how people felt about how they had spent their time. Pearson correlations suggest that both traits were negatively related to negative feelings regarding their choice (i.e., guilt, regret, remorse, and dissatisfaction) and positively related to satisfaction (see Table S3 in the online supplement). Only trait hedonic capacity was positively related to joy, trait self-control was not. Pride was not associated with either trait self-control or trait hedonic capacity. In sum, although both traits were related to different experiences during activities, the evaluation of how they spend their time was similar.

Brief Discussion

In two studies, participants either imagined choosing activities or freely engaged in activities to spend unexpected time. Trait self-control was linked to experiencing activities as more eudaimonic, while trait hedonic capacity was linked to experiencing activities as more

hedonic. However, traits were not linked to specific activities chosen (e.g., exercising, relaxing) but to a greater sense of meaning or pleasure regardless of the activity. This might be due to the abstract coding of activities which did not capture important differences or different goals for the same activity (e.g., exercising to stay fit vs. for fun). Alternatively, these findings might reflect how people construe experiences independently of the activity itself. Regardless, these findings do not conclusively show whether traits are related to preferences for certain experiences. Although participants chose activities themselves, experiences were only measured after the fact. In Study 2, we aimed to test if people with higher trait self-control or trait hedonic capacity would choose activities based on how they expect them to feel.

Study 2

In an online study, participants engaged in hypothetical repeated choices of spending unexpected free time with activities framed as eudaimonic (e.g., 'meaningful') versus hedonic (e.g., 'pleasurable'). We pre-registered that the higher trait self-control, the more people would prefer eudaimonic (vs. hedonic) activities (H1) and the higher trait hedonic capacity, the more people would prefer hedonic (vs. eudaimonic) activities (H2).

Method

Sample

The sample description and characteristics are provided in Table 1.

Procedure

Participants first completed trait self-control and trait hedonic capacity measures and were then asked to imagine having a few hours of unexpected time and to choose repeatedly between different activities. They were told that each activity would be described with one word that would indicate how the activity usually makes people feel. For each of the 20 trials, they would see the instruction, "You unexpectedly have a few hours free NOW. Which

activity (A or B) would you prefer?" on the top of the screen. Below this, they saw two options with one activity being described by one word referring to a eudaimonic experience (e.g., "A is meaningful") and one option with one word referring to a hedonic experience (e.g., "B is pleasurable"). We fully counterbalanced whether hedonic activities were presented as A or B and as the option to the left or right. Following this task, participants completed two more trait measures for exploratory purposes and were debriefed and thanked.

Measures

Trait measures. We assessed trait self-control (α = .86) and trait hedonic capacity (α = .87) with the same measures as in Study 1a and 1b. For exploratory purposes, we additionally assessed grit with the German version of the Short Grit Scale named the BISS-8 (Schmidt et al., 2019), consisting of two subscales: perseverance of effort (4 items, α = .78) and consistency of interest (4 items, α = .80). Further, we assessed conscientiousness with the German version of TIPI which consists of two items per personality factor (Spearman-Brown r = .63; Muck et al., 2007).

Activity preference. We assessed activity preference with 20 trials in which participants chose between two activities described with one word each: one that referred to a eudaimonic experience (i.e., meaningful, worthwhile, fulfilling, productive, important, purposeful, inspiring, elevating, motivating, enriching) and one that referred to a hedonic experience (i.e., pleasurable, pleasant, soothing, amusing, indulgent, enjoyable, relaxing, entertaining, restful, full of relish, satisfying). The words were derived from the four items administered in Study 1 and 2 as well as research on hedonic and eudaimonic experiences (Huta & Ryan, 2010; Huta & Waterman, 2014). Each trial represented a random pair of the 10 hedonic and 10 eudaimonic words without replacement. This was repeated twice such that each word appeared twice but likely in a different pairing. As a dependent measure, we calculated the proportion of hedonic choices (hedonic = 1, eudaimonic = 0) within the 20 trials for each participant (M = 0.56, SD = .28, $Range$ = 0.0-1.0).

Results and Discussion

As pre-registered, a multiple regression analysis was conducted to examine the relationship between trait self-control, trait hedonic capacity, and the proportion of hedonic choices, while controlling for age and gender (1 = male, 2 = female, and 3 = diverse). The overall model was statistically significant, $F(5, 242) = 3.46$, $p = .005$, $R^2 = .067$, indicating that approximately 6.7% of the variance in the proportion of hedonic choices was explained by the four predictors. In line with our hypotheses, trait self-control was a significant negative predictor indicating lower proportion of hedonic choices, $\beta = -0.24$, $b = -0.09$, $SE = 0.02$, $t = -3.66$, $p < .001$, whereas trait hedonic capacity was a significant positive predictor indicting higher proportion of hedonic choices, $\beta = 0.18$, $b = 0.07$, $SE = 0.02$, $t = 2.70$, $p = .007$. Age and gender did not significantly predict the proportion of hedonic choices. Both effect sizes were small with trait self-control explaining 5% of variance and trait hedonic capacity 3%. Exploratory analyses ruled out grit and conscientiousness as possible third variables (see online supplement).

General Discussion

Findings of three studies suggest that given a free choice, people with high trait self-control prefer spending time with activities that feel meaningful rather than pleasurable. The opposite was the case for people with high trait hedonic capacity. We observed this when people rated the eudaimonic and hedonic experiences of activities they imagined choosing (Study 1a), in actual activities they engaged in (Study 1b), as well as in a choice paradigm that directly compared eudaimonic and hedonic activities (Study 2). Given that long-term goal congruent actions have a generally higher potential to be experienced as eudaimonic (see Study 1a/b), our findings might help explain why individuals with high self-control are more likely to act in line with their long-term goals. Further, traits predict a higher-than-average experience of the "same" activities as pleasurable or meaningful, which suggests additional processes that help individuals get the experiences they want. Together these findings offer

new ways of explaining why individuals with high self-control are more successful in aligning their behavior with their long-term goals and experience self-control as effortless.

Theoretical contribution

Recent models of self-control argue that self-control is not about the strict inhibition of hedonic desires, but rather a matter of choosing the option that is most valuable in a given situation (e.g., exercise vs. relax, Berkman et al., 2017). Others argue that self-control is a question of applying the right strategies or building adaptive habits (Galla & Duckworth, 2015; Gillebaart & Schneider, 2024; Hennecke & Bürgler, 2020). Our research contributes to these ideas in several ways. First, high self-control individuals seem to prefer spending their time in a way that feels meaningful rather than pleasurable, which might help them make the "right" decision more often (Berkman et al., 2017), that is, choose the option that is in line with their long-term goals and values. Further, this preference might also help explain why individuals with high self-control experience less vice-virtue conflicts in everyday life (Hofmann et al., 2014) and experience self-control as effortless (Gillebaart & Schneider, 2024). The preference for meaning over pleasure was present even when participants were spending 'free time' that was fully compensated—a situation that should have allowed them to prioritize pleasure (Fishbach & Dhar, 2005).

Second, with much of the self-control research focusing on effort as a negative feeling associated with self-control, our research puts a new emphasize on the positive immediate experience of working towards long-term goals. Previous research and theorizing suggested that goal pursuit, especially when successful, is associated with positive affect (Carver & Scheier, 1990). In addition, people may also feel that they are doing something that is meaningful and valuable to them personally. Eudaimonic experiences may therefore serve as "motivational placeholder" for activities' future rewards and thereby reinforce engagement in goal-directed action. This offers a new way of explaining why trait self-control predicts

success in various life domains and a new way of promoting self-control by helping people to create or enhance eudaimonic experiences.

Open research questions

Our findings also raise interesting questions for future research. First, future research should investigate whether eudaimonic and hedonic experiences have different and perhaps additive motivational value to reinforce behavior (e.g., studying, exercising, pro-environmental behavior). If we want people to engage in these behaviors, should we make them more pleasurable, more meaningful, or both? Prior research suggests that hedonic experiences during an activity (e.g., enjoyment of exercising) is a stronger predictor of persistence than goal importance (e.g., importance of health/fitness; Woolley & Fishbach, 2015, 2017). However, importance reflects a rather cognitive evaluation of the goal not the activity, whereas enjoyment reflected an affective experience. These results might therefore look different when considering people's eudaimonic experiences during goal-directed activities.

Further, some of our findings suggest that individuals with high trait self-control not only prioritize meaningful activities over pleasurable ones but also derive more meaning from the same activities compared to others. We propose several potential explanations. Firstly, individuals with high self-control may engage in conscious appraisal or framing of activities in a way that motivates them. This cognitive process may involve interpreting activities to align with their long-term goals and or their hedonic goals, thereby enhancing the perceived meaningfulness or pleasure of these activities. For example, a person might view exercise not just as a physical activity but also to achieve better health and well-being. Therefore, he or she may find it more meaningful. If another person does exercise for fun, this person may find it more pleasurable. Secondly, it is possible that those trait-congruent appraisals require less effort for individuals with high self-control. Research suggests that high self-control is associated with better emotional regulation and cognitive flexibility (Nakhostin-Khayyat et

al., 2024; Paschke et al., 2016), which may facilitate the effortless integration of meaningful perspectives into daily activities. This could imply that for these individuals, perceiving activities as meaningful is more of a default tendency rather than a deliberate effort. More research is needed to study whether and how traits shape experiences of the very same activity. Knowledge about how people could (learn to) construct positive feelings in everyday activities is relevant for intervention that aims at behavior change (Shiota et al., 2021).

Limitations

This study used data from western-industrialized countries, therefore, whether findings generalize to other, non-western populations remains an open question. Further, we used the Brief Self-Control Scale (Tangney et al., 2004), because this measure has demonstrated considerable overlap with important life outcomes (de Ridder et al., 2012; Tangney et al., 2004). Our results may therefore not generalize to other measures of self-control that emphasize different aspects (e.g., Hoyle & Davisson, 2016). Moreover, all studies were cross-sectional; therefore, we cannot conclude a causal order of self-control leading to a preference for meaning over pleasure or vice versa. Both directions are possible, and third variables could be responsible for their association. To determine if there is a causal relationship, experimental studies should manipulate eudaimonic experience or (perceived) self-control.

Conclusion

For decades, researchers have been fascinated by trait self-control due to its effect on various positive life outcomes. Our findings suggest that the success of individuals with high trait self-control may not solely be attributed to successfully avoiding pleasure, but to wanting meaning instead. This preference might help them choose goal-directed actions more often because they promise more meaning than hedonic endeavors. Further research is needed to explore whether and how this preference for meaning over pleasure contributes to their success in life.

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Author Contributions

KB contributed to study conceptualization, data collection, data preparation, data analysis, report writing - original. DB contributed to report writing – editing and reviewing. AG contributed to report writing – editing and reviewing.

References

Adriaanse, M. A., Kroese, F. M., Gillebaart, M., & De Ridder, D. T. D. (2014). Effortless inhibition: habit mediates the relation between self-control and unhealthy snack consumption. *Frontiers in Psychology*, *5*(444), 1–6. https://doi.org/10.3389/fpsyg.2014.00444

Bates, D., Mächler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software, 67*(1), 1-48. https://doi.org/10.18637/jss.v067.i01

Becker, D., Jostmann, N. B., Hofmann, W., & Holland, R. W. (2019). Spoiling the pleasure of success: Emotional reactions to the experience of self-control conflict in the eating domain. *Emotion*, *9*(8), 1377–1395. https://doi.org/10.1037/emo0000526

Berkman, E. T., Hutcherson, C. A., Livingston, J. L., Kahn, L. E., & Inzlicht, M. (2017). Self-Control as Value-Based Choice. *Current Directions in Psychological Science, 26(5),* 422-428. https://doi.org/10.1177/0963721417704394

Bernecker, K., & Becker, D. (2021). Beyond self-control: Mechanisms of hedonic goal pursuit and its relevance for well-being. *Personality and Social Psychology Bulletin*, *47*(4), 627–642. https://doi.org/10.1177/0146167220941998

Bernecker, K., Becker, D., & Guobyte, A. (2023). If the party is good, you can stay longer— effects of trait hedonic capacity on hedonic quantity and performance. *Motivation and Emotion, 47*(4), 711–725. https://doi.org/10.1007/s11031-023-10021-6

Bertrams, A., & Dickhäuser, O. (2009). Messung dispositioneller Selbstkontroll-Kapazität: Eine deutsche Adaptation der Kurzform der Self-Control Scale (SCS-K-D). *Diagnostica*, *55*(1), 2–10. https://doi.org/10.1026/0012-1924.55.1.2

Carver, C. S., & Scheier, M. F. (1990). Origins and Functions of Positive and Negative Affect: A Control-Process View. *Psychological Review*, *97*, 19–35.

de Ridder, D. T. D., Lensvelt-Mulders, G., Finkenauer, C., Stok, F. M., & Baumeister, R. F. (2012b). Taking stock of self-control: A meta-analysis of how trait self-control relates to a wide range of behaviors. *Personality and Social Psychology Review*, *16*(1), 76–99. https://doi.org/10.1177/1088868311418749

Duckworth, A. L. (2011). The significance of self-control. *Proceedings of the National Academy of Sciences of the United States of America*, *108*(7), 2639–2640. https://doi.org/10.1073/pnas.1019725108

Duckworth, A. L., Taxer, J. L., Eskreis-Winkler, L., Galla, B. M., & Gross, J. J. (2019). Self-control and academic achievement. *Annual Review of Psychology*, *70*, 373–399.

Fishbach, A., & Dhar, R. (2005). Goals as excuses or guides: The liberating effect of perceived goal progress on choice. *Journal of Consumer Research, 32*(3), 370–377. https://doi.org/10.1086/497548

Galla, B. M., & Duckworth, A. L. (2015). More than resisting temptation: Beneficial habits mediate the relationship between self-control and positive life outcomes. *Journal of Personality*, *109*(3), 508–525. https://doi.org/http://dx.doi.org/10.1037/pspp0000026

Gillebaart, M., & De Ridder, D. T. D. (2015). Effortless self-control: A novel perspective on response conflict strategies in trait self-control. *Social and Personality Psychology Compass*, *2*(10), 88–99. https://doi.org/10.1111/spc3.12160

Gillebaart, M., & Schneider, I. K. (2024). Effortless self-control. *Current Opinion in Psychology, 59*, 101860. https://doi.org/10.1016/j.copsyc.2024.101860

Guobyte., A. Bernecker, K., Becker, D. (2023). Blended goals: Consequences of mixing work into pleasure for hedonic success. 19th General Meeting of the European Association of Social Psychology. Krakow, Poland.

Hennecke, M., & Bürgler, S. (2020). Many roads lead to Rome: Self-regulatory strategies and their effects on self-control. *Social and Personality Psychology Compass, 14*(e12530). https://doi.org/10.1111/spc3.12530

Hofmann, W., Friese, M., & Strack, F. (2009). Impulse and self-control from a dual-systems

   perspective. *Perspectives on Psychological Science*, *4*(2), 162–176.

   https://doi.org/10.1111/j.1745-6924.2009.01116.x

Hofmann, W., & Kotabe, H. (2012). A general model of preventive and interventive self-

   control. *Social and Personality Psychology Compass*, *6*(10), 707–722.

   https://doi.org/10.1111/j.1751-9004.2012.00461.x

Hofmann, W., Luhmann, M., Fisher, R. R., Vohs, K. D., & Baumeister, R. F. (2014). Trait

   self-control and well-being. *Journal of Personality, 82*(2), 265-277.

   https://doi.org/10.1111/jopy.12050

Hoyle, R. H., & Davisson, E. K. (2016). Varieties of self-control and their personality

   correlates. In *Handbook of self-regulation: Research, theory, and applications* (pp. 396–

   413).

Huta, V., & Ryan, R. M. (2010). Pursuing pleasure or virtue: The differential and overlapping

   well-being benefits of hedonic and eudaimonic motives. *Journal of Happiness Studies*,

   11(6), 735–762. https://doi.org/10.1007/s10902-009-9171-4

Kotabe, H. P., & Hofmann, W. (2015). On integrating the components of self-control.

   Perspectives on Psychological Science, *10*(5), 618–638.

   https://doi.org/10.1177/1745691615593382

Mischel, W., Shoda, Y., & Rodriguez, M. L. (1989). Delay of gratification in children.

   Science, *244*(4907), 933–938. https://doi.org/10.1126/science.2658056

Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., Houts,

   R., Poulton, R., Roberts, B. W., Ross, S., Sears, M. R., Thomson, W. M., & Caspi, A.

   (2011). A gradient of childhood self-control predicts health, wealth, and public safety.

   Proceedings of the National Academy of Sciences of the United States of America,

   108(7), 2693–2698. https://doi.org/10.1073/pnas.1010076108

Muck, P. M., Hell, B., & Gosling, S. D. (2007). Ten-Item Personality Inventory--German Version (TIPI-G) [Database record]. APA PsycTests. https://doi.org/10.1037/t07017-000

Nakhostin-Khayyat, M., Borjali, M., Zeinali, M., & et al. (2024). The relationship between self-regulation, cognitive flexibility, and resilience among students: A structural equation modeling. *BMC Psychology, 12*(337). https://doi.org/10.1186/s40359-024-01843-1

Paschke, L. M., Dörfel, D., Steimke, R., Trempler, I., Magrabi, A., Ludwig, V. U., Schubert, T., Stelzel, C., & Walter, H. (2016). Individual differences in self-reported self-control predict successful emotion regulation. *Social Cognitive and Affective Neuroscience, 11*(8), 1193–1204. https://doi.org/10.1093/scan/nsw036

Rodriguez, J. E., Holmes, H. L., Alquist, J. L., Uziel, L., & Stinnett, A. J. (2021). Self-controlled responses to COVID-19: Self-control and uncertainty predict responses to the COVID-19 pandemic. *Current Psychology*, *July*. https://doi.org/https://doi.org/10.1007/s12144-021-02066-y

Schmidt, F. T. C., Fleckenstein, J., Retelsdorf, J., Eskreis-Winkler, L., & Möller, J. (2019). Measuring grit: A German validation and a domain-specific approach to grit. *European Journal of Psychological Assessment, 35*(3), 436–447. https://doi.org/10.1027/1015-5759/a000407

Shiota, M. N., Papies, E. K., Preston, S. D., & Sauter, D. A. (2021). Positive affect and behavior change. *Current Opinion in Behavioral Sciences*, *39*, 222–228.

Sullivan, N., Hutcherson, C., Harris, A., & Rangel, A. (2015). Dietary self-control is related to the speed with which attributes of healthfulness and tastiness are processed. *Psychological Science, 26*(2), 122-134. https://doi.org/10.1177/0956797614559543

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality*, *72*(2), 271–324. https://doi.org/10.1111/j.0022-3506.2004.00263.x

Woolley, K., & Fishbach, A. (2015). The experience matters more than you think: People value intrinsic incentives more inside than outside an activity. *Journal of Personality and Social Psychology*, *109*(6), 968–982. https://doi.org/10.1037/pspa0000035

Woolley, K., & Fishbach, A. (2017). Immediate rewards predict adherence to long-term goals. *Personality and Social Psychology Bulletin*, *43*(2), 151–162. https://doi.org/10.1177/0146167216676480