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What People Desire, Feel Conflicted About, and Try to Resist in Everyday Life

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Abstract

In the present study, we used experience sampling to measure desires and desire regulation in everyday life. Our analysis included data from 205 adults, who furnished a total of 7,827 reports of their desires over the course of a week. Across various desire domains, results revealed substantial differences in desire frequency and strength, the degree of conflict between desires and other goals, and the likelihood of resisting desire and the success of this resistance. Desires for sleep and sex were experienced most intensively, whereas desires for tobacco and alcohol had the lowest average strength, despite the fact that these substances are thought of as addictive. Desires for leisure and sleep conflicted the most with other goals, and desires for media use and work brought about the most self-control failure. In addition, we observed support for a limited-resource model of self-control employing a novel operationalization of cumulative resource depletion: The frequency and recency of engaging in prior self-control negatively predicted people's success at resisting subsequent desires on the same day.

Keywords

desire, self-control, motivation, experience sampling, ego depletion, motivation, behavioral assessment

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Human beings sustain life by acting on their desires. Yet to act on every desire is sometimes to court disaster, as illustrated by vivid examples ranging from the biblical story of Adam and Eve to the perennial scandals of politicians and other newsmakers. Social norms, morals, and the contingencies of physical health dictate that many desires should be resisted: For example, Schroeder (2007) estimated that 40% of deaths in Western societies are caused by the long-term consequences of acting on desires for such substances as tobacco, sex, alcohol, recreational drugs, and unhealthy food.

Although motivation is the basic driving force underlying all animal behavior, humans have evolved an advanced and sensitive capacity to restrain and override motivations (Baumeister, 2005; Mischel, Cantor, & Feldman, 1996). Self-regulation is important for both theoretical and practical reasons. However, the majority of research on self-regulation occurs in the laboratory (Hagger, Wood, Stiff, & Chatzisarantis, 2010; Vohs & Baumeister, 2011). Furthermore, little is known about what types of urges are felt strongly (or only weakly), what urges conflict with other goals, and how successfully people resist their urges. This knowledge can inform understandings of self-control, behavioral change, and addiction.

The main goal of the present work was to assess and compare the base rates with which various desires are experienced and resisted in people's natural environments. We used experience-sampling methodology (Csikszentmihalyi & Larsen, 1987; Mehl & Conner, 2012) to assess the frequency and intensity of desires, the conflict between desires and other goals, and the frequency with which desires are resisted and enacted in everyday life. Whereas previous self-regulation research has focused mainly on specific types of desire, such as eating, drinking, and sex, in isolation from each other, we assessed the major desire domains within the same study. Such benchmark information may not only reveal important differences among desire domains but also help to identify previously underresearched topics of self-regulation.

The capacity for self-control may be relatively recent in evolutionary terms and therefore fragile, as suggested by evidence that engaging in self-control appears to tax a limited

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resource that, when low, makes subsequent self-control difficult (e.g., Baumeister, Bratslavsky, Muraven, & Tice, 1998; Vohs, Baumeister, & Ciarocco, 2005). To our knowledge, the present study is the first to test the nature and prevalence of such resource-depletion effects “in the wild,” that is, outside of the laboratory. We investigated whether the frequency and temporal closeness of attempts at resisting desire affects people’s success at resisting subsequent desires on a given day.

Method

Sample

The sample consisted of 208 participants (66% female, 34% male; age range = 18–55 years, $M = 25.24$ years, $SD = 6.32$) from the city and surrounding area of Würzburg, Germany. Of these participants, 73% were university students in 49 different fields of study (only 13 were psychology students). The remaining participants were either employed (13.9%), trainees (3.4%), high-school students (1.9%), unemployed (1.4%), on parental leave from work (1%), or retirees (1%), with the remaining 4.3% belonging to various other categories.¹ Data from 3 participants were lost, leaving a final sample of 205 participants.

Procedure

Participants were given BlackBerry smart phones, which they carried for 7 consecutive days. Each day, participants received seven signals asking them for information about their desires. These signals were distributed over the course of 14 hr. Participants were given approximately \$28 at the start of the study and additional incentives if they responded to more than 80% of the signals. On average, participants responded to 92.2% of the signals, which is a very high response rate.

Experience-sampling measures

At each signal, participants indicated whether they were currently experiencing a desire (explained as a craving, urge, or longing to do certain things) or whether they had just experienced a desire within the last 30 min. If they answered affirmatively, they next indicated the type of the desire from a list of 15 domains: eating, nonalcoholic drinks, alcohol, coffee, tobacco, other substances, sex, media use, spending, work, social contact, sports participation, leisure, sleep, hygiene. Participants could also answer “other” if their desire did not fall into one of these domains.² Participants indicated the strength of the desire on a scale from 0 (*no desire at all*) to 7 (*irresistible*). They also rated the degree to which the desire conflicted with other personal goals, on a scale from 0 (*no conflict at all*) to 4 (*very high conflict*), and the nature of the conflicting goals (from a list of 20 options; see Fig. S2 in the Supplemental Material). They also indicated whether they attempted to resist the desire (yes vs. no) and whether they

enacted the desire at least to some extent (yes vs. no).³ Up to three desires could be reported on any measurement occasion ($M = 1.14$). Participants gave 10,558 responses and reported a total of 7,827 desire episodes.

Resource-depletion score

To investigate potential resource-depletion effects over the course of the day, for each desire episode, we examined how often participants had already resisted a desire on the same day. Because the limited-resource model holds that more recent resistance attempts should have a greater impact than those distant in time (Baumeister, Vohs, & Tice, 2007; Hagger et al., 2010), we weighted each resistance attempt according to the number of time blocks separating the previous attempt from the episode to be predicted. For instance, when predicting whether participants enacted a behavior in Block 7 (the last block of the day), we gave a weight of 6 (the highest possible weight) to a resistance attempt occurring in the previous time block; a resistance attempt occurring in the first time block of the day received a weight of 1 (the lowest nonzero weight). We summed these weighted incidents of resistance to create Level 1 depletion scores (i.e., one depletion score per measurement occasion). Because depletion scores could not be calculated with regard to desires occurring in Block 1 of the data set, these cases were treated as missing.

Multilevel analysis strategy

Multilevel modeling (Raudenbush & Bryk, 2002) was used to predict the strength, conflict with goals, resistance, and enactment of each desire at Level 1, controlling for gender (weighted effects-coded) and age (mean-centered) at Level 2. Desire domain was effects-coded to allow for a statistical comparison of each domain (except the base domain “other”) with the grand mean (Cohen, Cohen, West, & Aiken, 2003). The binary variables of resistance and enactment were analyzed using logistic multilevel regression (Raudenbush & Bryk, 2002) and displayed using probabilities derived from the estimated log odds. To estimate self-regulatory failure rates per domain, we estimated the likelihood of resistance by including resistance and its interaction with each domain, controlling for desire strength. To investigate whether resource depletion affected self-control success, we regressed enactment on the resource-depletion score and its interaction with resistance, controlling for desire domain, desire strength, time of day, gender, and age.

Results

Figure 1 illustrates desire frequency, desire strength, conflict between desires and goals, and self-regulatory success for each domain (Table S1 in the Supplemental Material shows results for the data and significance tests). Different desires varied in frequency, $\chi^2(14, N = 7,827) = 6,972, p < .001$. Most

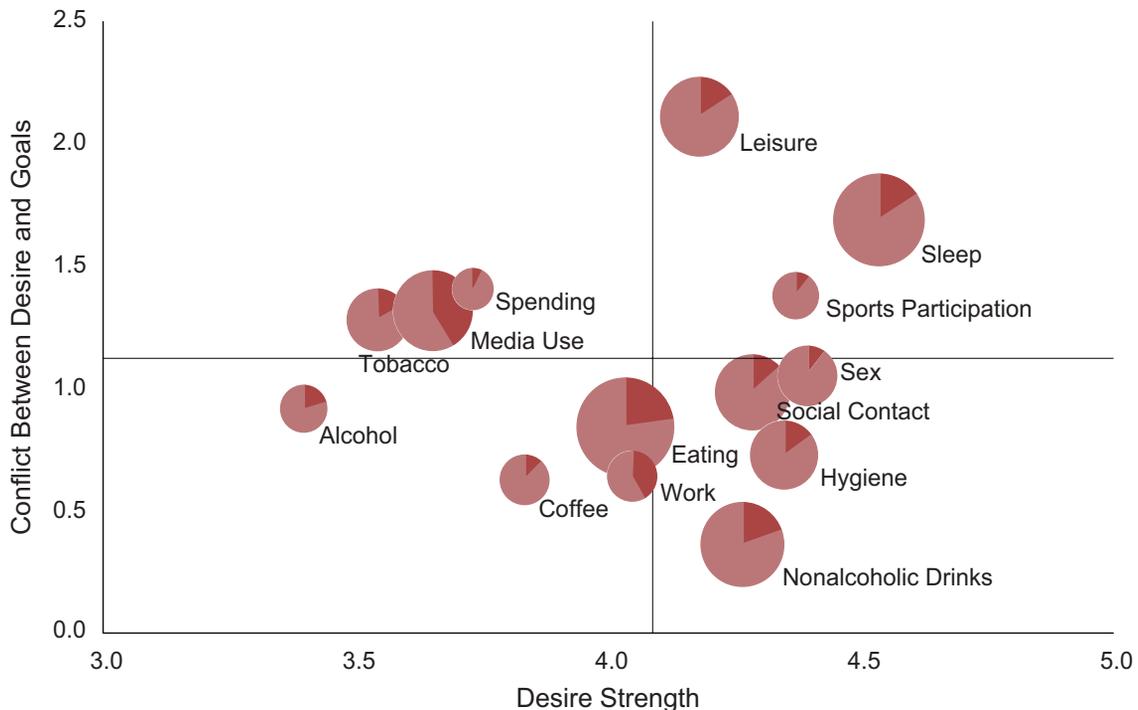


Fig. 1. Degree to which participants' desires conflicted with their goals as a function of the strength of the desire. The crossing horizontal and vertical lines indicate the grand means for conflict and strength in this sample. Results are shown for 14 different desire domains (the category "other" is not shown); the sizes of the pie charts represent the relative frequency of the desire. In each pie chart, the lighter portions indicate the probability of successfully controlling the desire (i.e., not enacting the desired behavior when attempting to resist it), whereas the darker portions indicate the probability of self-control failure.

frequent were desires to eat, drink, and sleep. Desires for leisure, social contact, and media use also were reported frequently. Figure 2 shows that the frequency with which desires were reported varied by time of day, $\chi^2(224, N = 7,827) = 1,166, p < .001$. Some desires were more frequently experienced in the morning (e.g., for coffee) or in the evening (e.g., for alcohol, media, social contact). Desire frequency also varied over the course of the week, $\chi^2(1652, N = 7,827) = 2,644, p < .001$. Figure 3 presents a descriptive snapshot of weekly desire trends. For instance, the urge to consume alcohol was most prominent on Saturday nights, desire for coffee peaked—quite characteristically—on Monday mornings, and desire to spend money peaked on Saturdays (in Germany, shops are closed on Sundays). Perhaps surprisingly, the desire for sleep was frequent throughout the day, rather than concentrated in morning or evening.

As Figure 1 shows, desire strength was significantly above average for sleep, sex, hygiene (e.g., to use the bathroom), sports participation, social contact, and nonalcoholic drinks. Despite the stereotype of powerfully addictive cravings, desires for tobacco and alcohol had the lowest average desire strength. Above-average levels of conflict with other goals were associated with desires for leisure activities and sleep, followed by desires for spending, sports participation, media use, and tobacco. Thirst, when not specifically aimed at alcohol, was the least conflicted desire. The 7,573 conflicting goals reported by participants were grouped into six categories:

- Health-related goals (22.9%), which consisted of bodily fitness ($n = 670$), healthy eating ($n = 554$), reducing risk of health damages ($n = 341$), healthy drinking ($n = 157$), and reducing risk of infections ($n = 14$);
- Abstinence-restraint goals (9.1%), consisting of saving money ($n = 331$), ending a dependence ($n = 155$), remaining abstinent ($n = 138$), and fidelity ($n = 64$);
- Achievement-related goals (28.1%), comprising academic achievements ($n = 1,489$), professional achievements ($n = 407$), and sport achievements ($n = 229$);
- Social goals (10.6%), consisting of social appearance ($n = 487$), social recognition ($n = 166$), moral integrity ($n = 117$), and socializing ($n = 30$);
- Time-use goals (28.9%), which consisted of using time efficiently ($n = 1,221$), not delaying and getting things done ($n = 927$), and leisure and relaxation ($n = 38$);
- Other (0.5%, $n = 38$).

Although there were a number of prominent self-regulatory conflicts, such as between food desires and health-related goals, the links between everyday desires and opposing goals were very multifaceted and complex (see Fig. S2 in the Supplemental Material for a connection graph illustrating these conflicts).

Self-control is often used to resist desires, especially when people experience conflict (Baumeister & Heatherton, 1996;

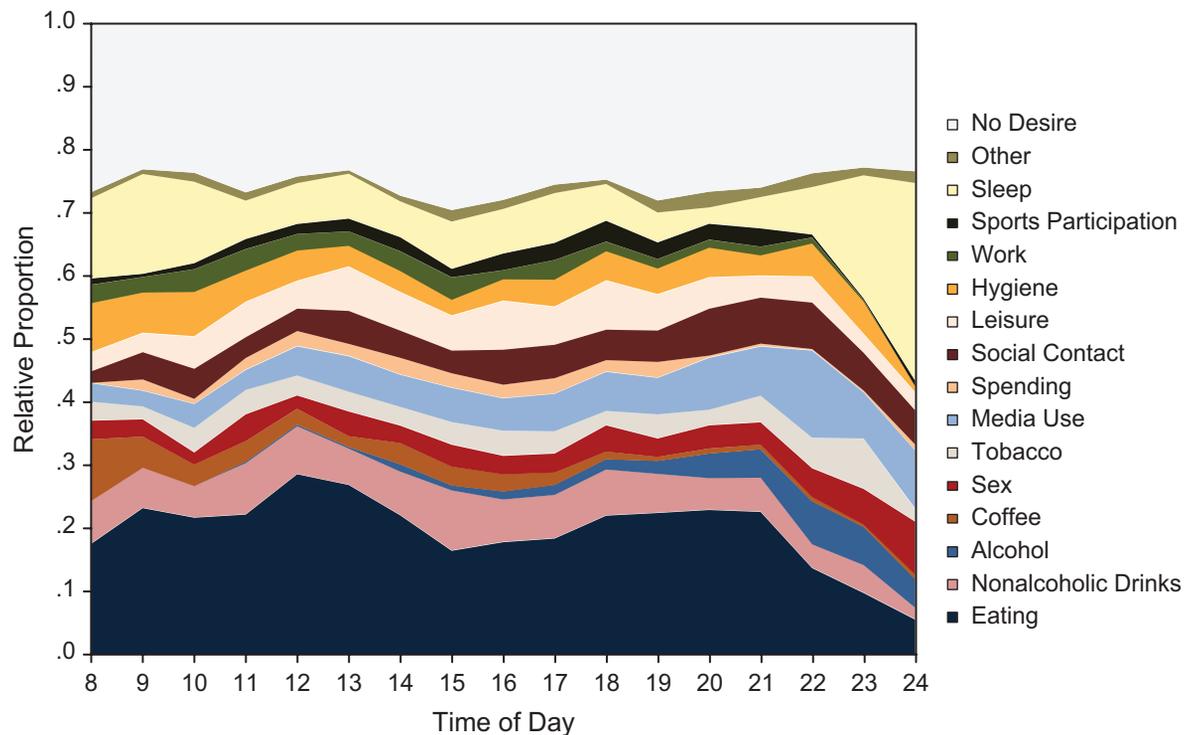


Fig. 2. Frequency distribution of 15 desires as a function of the time of day (in the 24-hr time format). Proportions are presented as a stacked area chart, in which the cumulative proportion of all reported desires (including no-desire reports) within a given time period is always 1.0. The thickness of each color layer indicates how frequently a given desire was reported, relative to the total number of reports furnished in a given hourly time segment (hourly time segments began on the half hour; e.g., reports from 9:30 to 10:29 were used to compute the results for 10:00).

Mischel et al., 1996). Above-average rates of resistance were found for sleep, sex, leisure, spending, and eating (Table S1 in the Supplemental Material). Resistance rates were below average with regard to desires for social contact, alcohol, nonalcoholic drinks, media use, and work.

For each domain, we estimated self-regulation failure rates, defined as the proportion of desires enacted despite participants' having attempted to resist. Not all desires were resisted equally well (Fig. 1): Self-control failure rates were highest for desires to engage in media activities, with 42% of those desires enacted even when people had attempted to resist. Resisting the desire to work was likewise prone to fail. In contrast, people were relatively successful at resisting sports participation, sexual urges, and spending impulses. These findings seem surprising given the salience in modern culture of disastrous failures to control sexual impulses and urges to spend money.

In support of the strength model of self-regulation, our findings showed that resource depletion moderated the relation between the resistance and enactment of desires, $b_{\log} = 0.03$, $p = .04$, such that resistance became less effective for high levels of resource depletion (Fig. 4). The specificity of the depletion effect was demonstrated by simple-slopes analyses showing that higher levels of resource depletion predicted

more behavioral enactment—but only for the desires that people actively attempted to resist, $b_{\log} = 0.03$, $p = .01$. Depletion scores did not predict enactment of behaviors that reflected nonresisted desires, $b_{\log} = 0.00$, $p = .74$.

Ancillary analyses showed that the resource-depletion effect was unaffected by the average daily number of desires reported per participant. The average number of desires had no main effect on enactment, $b = -0.04$, $p = .24$, and did not moderate the main effect of depletion, $b = -0.0031$, $p = .33$, nor the crucial interaction between resistance and depletion, $b = 0.0016$, $p = .81$. However, the average number of desires moderated the main effect of resistance, $b = -0.16$, $p = .01$. The negative effect indicates that people who reported a higher number of desires were better on average at inhibiting their desires than people who reported a lower number of desires. Though speculative, this finding may indicate a “training effect,” such that people who generally experience a lot of desires may get better at resisting them over time.

Moreover, the crucial Resistance \times Depletion interaction remained significant when restricting the analysis to only those desire occasions for which no desire from the same domain had been reported earlier on the same day (66% of the data set), $b_{\log} = 0.05$, $p = .02$, which supports the claim that self-regulatory resources are nonspecific. Last, depletion

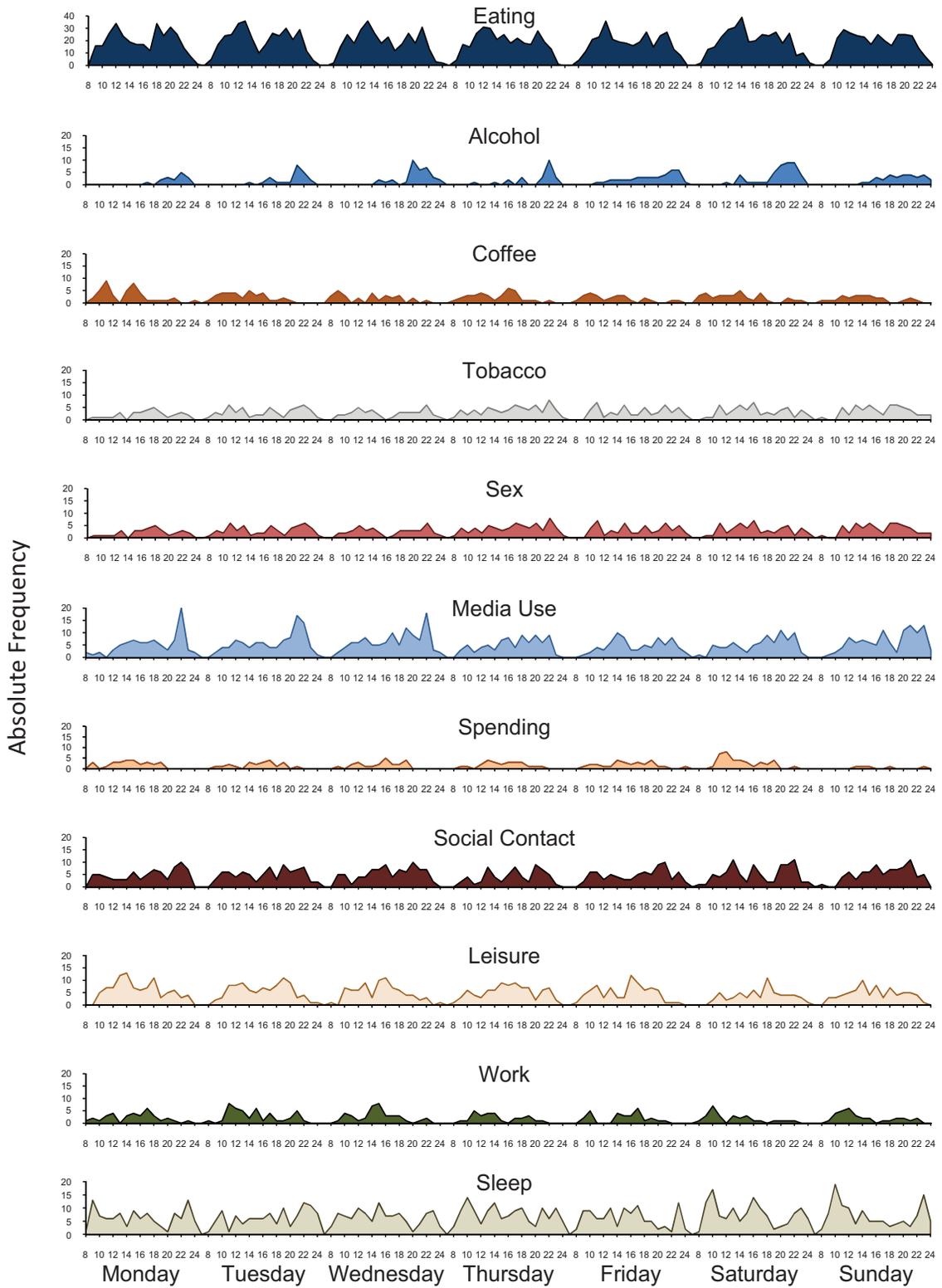


Fig. 3. Weekly frequency distributions of selected desires. The numbers along the x-axes refer to time of day in the 24-hr time format.

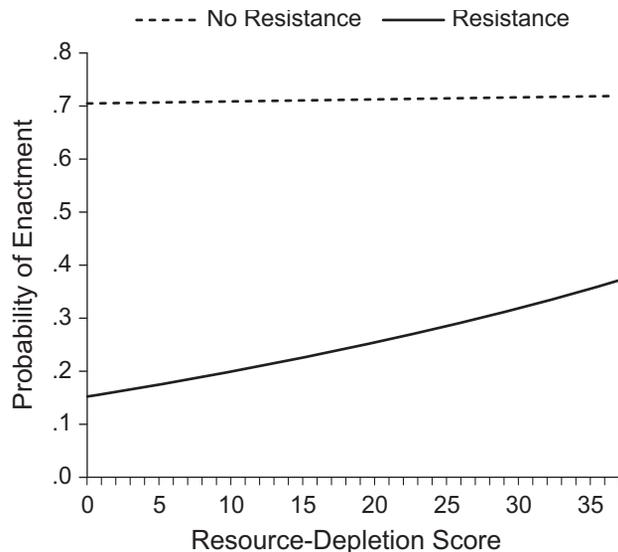


Fig. 4. Probability with which participants enacted a given desire as a function of resource-depletion score, separately for occasions on which people did and did not attempt to resist the desire. The resource-depletion score reflects the number of previous resistance attempts (regardless of desire content) on the same day. Previous resistance attempts were weighted such that more recent resistance attempts received more weight than more temporally distant resistance attempts.

scores did not correlate with the likelihood of attempting to resist a desire, $b_{\log} = 0.009, p = .18$. This null finding suggests that resource depletion primarily affected people's ability, rather than motivation, to engage in self-control.

Discussion

Desire, conflict, and resistance are frequent and pervasive features of daily life. Although modern civilization may involve advanced and sophisticated forms of behavior, we found that the desires felt most frequently pertained to basic bodily needs, such as eating, drinking, and sleeping. The desire for social contact was also prominent, reflecting the need to belong (Baumeister & Leary, 1995). These desires were not only the most commonly felt but also some of the most strongly felt.

In contrast, acquired tastes, including even those for supposedly addictive substances such as tobacco, alcohol, and coffee, were below average in subjective strength. These findings challenge the stereotype of addiction as driven by irresistibly strong desires. Given the range of desires we sampled, it was surprising that those for sleep and leisure emerged as the most problematic (i.e., conflicted) desires. These results suggest a pervasive tension between natural inclinations to rest and relax and the multitude of other obligations, including work.

The present findings also show that not all desires were resisted equally well: Desires to work and use media were especially prone to be enacted despite resistance. Resisting the desire to work when it conflicts with other goals, such as

socializing or leisure activities, may be difficult because work can define people's identities, dictate many aspects of daily life, and invoke penalties if important duties are shirked. Media desires, such as social networking, checking e-mails, surfing the Web, or watching television (see Fig. S3 in the Supplemental Material for the full distribution of media desires), might be hard to resist in light of the constant availability, huge appeal, and apparent low costs of these activities. Media-consumption behaviors might, however, turn into strong habits or forms of pathological media abuse (LaRose, 2010; Song, LaRose, Eastin, & Lin, 2004). Whether under-regulation of media use causes serious problems for modern Westerners is an intriguing issue.

The idea that self-control failure can be linked to a limited resource has been well documented in laboratory studies (Hagger et al., 2010), but to our knowledge this is the first investigation to establish that it is a phenomenon prevalent in everyday life. Using a novel indirect operationalization that capitalized on people's reports of their desires throughout the day, we found that the more frequently and recently participants had resisted any earlier desire, the less successful they were at resisting any other subsequent desire. This effect was robust across the average number of daily desires and across thematically unrelated domains. These findings indicate that people become more vulnerable to succumbing to (even unrelated) impulses that arise later in the day, to the extent they restrained themselves earlier from enacting their desires. These results also suggest that the aftereffects of using self-control accumulate over longer time spans than previously thought.

Together, the present data depict modern life as a welter of assorted desires marked by frequent conflict and resistance, the latter with uneven success. Whereas most resistance attempts are successful, a significant minority of attempts at self-control do fail, depending on the kind of desire people attempt to control and on people's self-control history over the course of the day. Extrapolating from our findings, we conclude that the average adult spends approximately 8 hours per day feeling desires, 3 hours resisting them, and half an hour yielding to previously resisted ones.

Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

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Supplemental Material

Additional supporting information may be found at <http://pss.sagepub.com/content/by/supplemental-data>

Notes

1. Preliminary analyses indicated that students and nonstudents mentioned desires with remarkably similar relative frequency (see Fig. S1 in the Supplemental Material available online). In addition, including student status (yes vs. no) as a dummy variable moderated effects only with regard to a narrow subset of domains for the analysis of desire strength and conflict between desires and other goals (indicated in Table S1 in the Supplemental Material), and not at all for the analysis of desire resistance and enactment. We therefore concluded that the two subsamples were largely comparable and have reported the results for the full sample.
2. Because desires for “other substances” were mentioned very infrequently ($n = 24$ occurrences), they were added to the category “other” for analyses.
3. This study also included the assessment of personality differences and of situational factors not in the focus of interest here. These data are reported in Hofmann, Baumeister, Förster, and Vohs (2011).

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