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Getting a grip on yourself or your environment: Creating opportunities for strategic self-control in behavioral public policy

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Abstract

In recent years, self-control research has shifted from a focus on effortful inhibition towards an understanding of self-control as strategically navigating one's environment by ignoring or avoiding situations that may challenge self-control. Yet despite increased attention to strategic self-control, an explicit consideration of perceived control over the environment as a potentially critical driver of self-control strategies is lacking. Recognizing the crucial role of perceived control, this article reviews research highlighting the interplay between self-control and control over one's surroundings. We first examine research on new conceptualizations of self-control that go beyond effortful inhibition of impulses. We then turn to research that addresses the role of perceived control over the environment, arguing that an emphasis on strategic self-control requires a profound understanding of how perceptions of control determine options for employing self-control strategies. We conclude with a discussion of promising new directions for behavioral public policies. These policies should better acknowledge the importance of perceived control by creating arrangements that help people in getting more control over their surroundings. This new perspective will take away concerns about an excessive individual frame

that holds individuals responsible for self-control failures in unsupportive environments.

1 | INTRODUCTION

Self-control, generally defined as prioritizing a long-term goal over instant gratification of a competing desire with immediate lure (Baumeister & Vohs, 2004), has been shown to be important for many good outcomes in life (De Ridder et al., 2012; Moffit et al., 2011; Tangney et al., 2004). The notion of a motivational conflict between 'want to' (e.g., eat junk food) and 'should' (e.g., eat healthy; Milkman et al., 2008) is central to the concept of self-control. This implicates that effortful inhibition of impulsive 'want to' response tendencies is required to resist the ubiquitous temptations of food, shopping, social media, and other vices (Akst, 2011). Whereas this view has dominated the field for decades, recent years have witnessed growing debate about self-control (e.g., De Ridder & Gillebaart, 2017; Duckworth et al., 2016; Gillebaart & de Ridder, 2015; Goschke & Job, 2023; Kotabe & Hofmann, 2015; Milyavskaya et al., 2019). Propositions for novel conceptualizations differ in scope and direction but they share the idea that self-control involves more than effortful inhibition of impulses and may be more effortless (Fujita, 2011; Gillebaart & de Ridder, 2015), preventive (rather than reactive; Hofmann & Kotabe, 2012) or strategic (Duckworth et al., 2016; Hennecke & Bürgler, 2020) than hitherto assumed. Even the notion of conflict as the essential feature of self-control with someone strongly wanting to do something and at the same time preventing herself from doing it has been contested (Goschke & Job, 2023). These novel insights are thought-provoking because they suggest that there may be more to self-control than just 'regulating the self by the self' (Baumeister & Vohs, 2004). As a result, these new understandings of self-control pay more attention to the question how people can strategically navigate tempting environments rather than resist their impulses in the heat of the moment.

However, these new conceptualizations do not address the critical issue of when and how people turn to strategic self-control (we will use 'strategic self-control' as an umbrella term encompassing notions of effortless and preventive self-control). Here, we propose to take a next step in self-control research and examine in what way perceiving control over one's environment may support the employment of strategies that make it easier to get a grip on one's surroundings. We argue that an emphasis on strategic self-control requires consideration of the critical question whether people perceive some control over what is happening in their lives beyond their own private experiences. We also argue that the incorporation of perceived control in self-control research may have major implications for the design of behavioral public policies. Whereas current behavioral policy making tends to rely on improving self-control by teaching skills and strategies to deal with tempting environments (De Ridder, Gillebaart, & Friese, 2020; Duckworth et al., 2018), a stronger focus on perceived control over the environment may critically take away concerns about an excessive individual frame that holds individuals responsible for their self-control failures in the absence of supporting environments (Chater & Loewenstein, 2022). Before addressing these implications for behavioral public policy, we will first discuss contemporary research on self-control and perceived control over the environment.

2 | BEYOND EFFORTFUL

In recent years, there has been growing attention to understanding self-control beyond effortful inhibition of impulses. Building on meta-analytic evidence that successful self-control may operate by forming and breaking habits (De Ridder et al., 2012), the quintessential nature of self-control as performing repeated acts of restraint has

been contested (De Ridder & Gillebaart, 2017; cf. Fujita, 2011). Multiple studies now have demonstrated that people with good self-control are able to achieve good outcomes by relying on routines (Adriaanse et al., 2014; De Ridder, Van der Weiden, Gillebaart, Benjamins, & Ybema, 2020; Galla & Duckworth, 2015; Gillebaart & Adriaanse, 2017; Yanaoka et al., 2022). The focus on routines has paved the way for considering self-control as a strategy insofar that relying on routines may be considered a tactic that comprises other ways of dealing with self-control dilemmas rather than simply inhibiting an unwanted response. In line with these insights, the strategic nature of self-control has been foregrounded, positing that people good at self-control have adopted smart strategies that allow them to ignore, disregard or otherwise circumvent tempting situations which would otherwise challenge their self-control capacity (Baldwin et al., 2022; Fujita et al., 2020; Gillebaart & de Ridder, 2015). For example, a large-scale experience sampling study revealed that people who described themselves good at self-control tend to experience fewer desires (Hofmann et al., 2012). Additional work has confirmed that people high in trait self-control are better at avoiding tempting situations than people low in self-control (Ent et al., 2015) and at arranging their environments so as to reduce the experience of obstacles to successful goal pursuit (Leduc-Cummings et al., 2022). Consistent with this notion, research has revealed that people high in self-control are better able to identify self-control conflicts at an earlier point in time, which allows them to deal proactively with these dilemmas (Gillebaart et al., 2020; Gillebaart et al., 2016). In keeping with the idea that people high in self-control are better able to arrange their environments in such a way that they don't need to turn to 'reactive' self-control (i.e., inhibit impulsive responses to a temptation), the process model of self-control (Duckworth et al., 2016) distinguishes between situational and cognitive self-control strategies. Situational strategies are employed early in an unfolding self-control conflict by choosing or changing situations in ways that weaken undesirable impulses (e.g., taking another route to work to avoid passing by the bakery that sells delicious cakes) whereas cognitive strategies are employed later in time to attenuate an already present self-control conflict (e.g., by attentional deployment or reappraisal). Subsequent research has revealed that situational strategies may contribute more to successful self-regulation (Hennecke & Bürgler, 2020) and well-being (Nielsen et al., 2019) than cognitive strategies, suggesting that early interventions allow for better handling of self-control dilemmas. Nevertheless, other research suggests that cognitive strategies (including inhibition) also may be effective (e.g., Duckworth et al., 2016).

It should be noted that the idea of strategic self-control is not new. Research on the classic marshmallow experiment (Mischel et al., 1989), for example, has long way back demonstrated that reappraisal (e.g., imagining that a tempting marshmallow is a puffy white cloud) and distraction (e.g., diverting one's attention away from the marshmallow) are effective self-control strategies that permit longer delay of gratification. However, in spite of accumulating evidence that strategic self-control is an important predictor of successful self-regulation it is not clear when and why people turn to specific strategies. Values and traditions may play a role as suggested by research on cultural contexts that set standards for what kind of self-control responses are appropriate. Employing the classic delay of gratification paradigm, it was shown that Japanese children were better able to wait for candies whereas American children could wait longer for gifts in accordance with prevailing conventions (Yanaoka et al., 2022). The power of cultural context has also been demonstrated in research examining beliefs about self-control, revealing that people in the US experience self-control more often as depleting whereas Indian people considered self-control exertion to be energizing (Savani & Job, 2017; cf. Li et al., 2018), which may impact their motivation for self-control and how much they rely on self-control strategies.

Still, not much is known about what makes people favor more advantageous situational strategies over cognitive strategies beyond their personal preference and ability (Duckworth et al., 2016). Here, we propose that the perception of one's environment plays an important role in determining what kind of strategies people will employ. Perceiving one's environment as amenable to change may support a choice for situational strategies (deal with the situation) over a wait-and-see tactic until a self-control conflict has grown into a dilemma that allows for cognitive strategies (deal with your emotional responses to the situation) only. To illustrate, if a person with a goal of healthy eating cannot determine a route to work that avoids unhealthy snacking outlets, he has no other options

than taking the course that is filled with unhealthy food opportunities, probably giving in to temptation after all. However, if someone experiences some control over the food environment, he may engage in the situational strategy of getting to work in a way that circumvents confrontation with unhealthy foods. Whereas the current understanding of self-control acknowledges the importance of early interventions that facilitate grip on one's environment, it is unclear to what extent these kind of strategies depend on whether people perceive an environment that allows for control to begin with. The very notion that the experience of control over one's environment may determine what kind of strategies people employ is critically absent from the self-control literature. Building on the novel insight that people good at self-control are more inclined to turn to situational strategies, the next step is to unravel how these kind of strategies relate to perceptions of control over one's situation.

3 | PERCEIVED CONTROL OVER THE ENVIRONMENT

The idea that people may sense varying degrees of control over their surroundings is not novel but typically missing from self-control research. In a comprehensive review examining multiple self-control operationalizations, the notion of personal control that explicitly refers to the environment was not even mentioned in passing (Duckworth & Kern, 2011). Likewise, in a theoretical paper differentiating between more than a hundred control constructs, self-control (as in being able to produce desired outcomes or prevent undesired outcomes within oneself) was categorized as conceptually different from the extent to which a person perceives himself to be in control of ongoing situations (Skinner, 1996). Control over one's environment is the essence of research on perceived control, defined as the belief that changes in the environment are contingent upon one's own actions, efforts, and choices (Skinner, 1996). Research on perceived control typically distinguishes between primary control (when people attempt to gain control by changing the environment such that it meets their needs and goals) and secondary control (as in bringing one's needs and goals into line with environmental constraints; Rothbaum et al., 1982), although there is debate whether secondary control would still count as true control (Morling & Evered, 2006) or should be labelled adjustment (Skinner, 2007). Regardless the exact label of secondary control (or adjustment), an important question is when people should give up on trying to make efforts to modify their actual situation and turn to an accommodative mode that promotes the adjustment of their goals to constraints imposed by the situation (Brandtstädter & Rothermund, 2002). Determining at what point in time people would better turn to secondary control is not so easy, however. Accordingly, most scholars agree that primary control should take precedence (hence, labelled as primary) and that secondary control (e.g., by means of changing one's expectations of success; Rothbaum et al., 1982) becomes only relevant when changing the environment proves impossible. The relevance of the distinction between primary and secondary control also is apparent from the large literature on coping, suggesting that problem-focused coping (as opposed to emotion-focused coping) strongly depends on primary appraisals of control over the situation (Folkman, 1984; Lazarus & Folkman, 1984). Primary control relies heavily on the extent to which individuals think their chances in life are under their own control, as exemplified in the label 'control over destiny' (Orton et al., 2019) and, more recently, in beliefs about whether one's opportunities of success are fixed or malleable (O'Keefe et al., 2023). Abundant research attests to the importance of perceptions of control as a predictor of engagement, wellbeing, and health (Heckhausen & Schulz, 1995; Infurna et al., 2011; Lachman, 2006; Lachman & Weaver, 1998; Pearlin & Schooler, 1978; Surtees et al., 2010). For example, higher perceptions of control over one's environment (indexed by a sense of mastery; Pearlin & Schooler, 1978) have been shown to be related to better health and greater life satisfaction in large samples of American (Lachman & Weaver, 1998) and European (Infurna et al., 2011) adults. Meta-analytic evidence further suggests that perceived control may also significantly increase people acting upon their intentions for health behavior (Hagger et al., 2022). Taken together, these studies suggest an impressive role for the experience of control over what happens in people's lives as compared with just controlling themselves.

Importantly, research insinuates significant social class differences in perceptions of control, such that people with lower incomes and lower levels of education perceive lower control over their environment (Bailis et al., 2001; Lachman & Weaver, 1998). Social class differences are typically associated with unfavorable circumstances such as poor neighborhoods that are characterized by crowding, noise, violence and the absence of public facilities (Taylor et al., 1997). A systematic review revealed strong evidence that low perceived control of the living environment may play a significant role in the pathways leading from low social position to poorer health and well-being (Orton et al., 2019). These findings are corroborated by a recent study demonstrating the mediating role of lower perceived control in the association between neighborhood settings and health and lifestyle outcomes (Gillebaart & De Ridder, 2019). As one of the very few studies examining both self-control and perceived control, this research further revealed that there were no neighborhood differences in trait self-control and that trait self-control did not predict neighborhood differences in health and lifestyle (Gillebaart & De Ridder, 2019). This suggests that for people living in suboptimal circumstances the way they perceive control over their own lives and their environment may be more important than controlling themselves (as defined by the capacity for effortful inhibition; Tangney et al., 2004).

Thus far, it is unknown how self-control and perceived control may influence one another, nor is it clear how perceived control relates to strategic self-control. Empirical evidence on these relationships is lacking. From a theoretical point of view, one might argue that perceived control would impact strategic self-control as it is likely that people make more efforts to change their situation if they believe that the situation is under control. The other possibility – strategic self-control impacts perceived self-control – is also probable: when people consistently make efforts to engage in strategic self-control they may generate better chances of success which in turn may boost their perceptions of perceived control. It also may be that both strategic self-control and perceived control are positively influenced by favorable circumstances. We thus argue that higher levels of (strategic) self-control may boost perceptions of control over one's environment. Likewise, and probably even more important, it may be that (strategic) self-control skills seriously depend on the experience of control over one's environment. It is therefore essential to examine whether greater perceived control can strengthen self-control, in particular strategic self-control. Given the theoretical premise that perceived control is a coping resource that helps people to engage in strategies for dealing with challenging circumstances (Pearlin & Schooler, 1978), it is vital to explore the possibilities for improving strategic self-control by increasing the perception that one's living situation is controllable. This accords well with the accumulating evidence that situational strategies for self-control support people in navigating challenging environments (Duckworth et al., 2016). Altogether, shifting attention from controlling the self to controlling one's environment may open up new avenues for interventions aimed at improving strategic self-control. Changing environments in such a way that they lead to a greater experience of control can support people in getting a grip on their lives and increase their willingness to exercise strategic self-control. In doing so, it is important to realize that perceived control hinges on possibilities for actual control over the environment (Orton et al., 2019). After all, perceptions of control are critically associated with arrangements in people's surroundings, as illustrated by research in poor neighborhoods (Gillebaart & De Ridder, 2019). We thus posit that perceptions of control may be a critical driver of (strategic) self-control. However, this does not implicate that better self-control relies on perceptions of control only, especially insofar an unfavorable environment is involved. There may be other ways in how objective disadvantages may affect self-control such as, for example, learned beliefs about how self-control operates (Gennara et al., 2023; Li et al., 2024) or beliefs about self-efficacy. These kinds of beliefs are amenable to change by exposing people to role models, verbal persuasion, or the experience of belonging to a community which may contribute to the experience of 'collective efficacy' (Bandura, 2000).

4 | IMPLICATIONS FOR BEHAVIORAL PUBLIC POLICY

In view of the potential relevance of perceived control for improving strategic self-control, it is vital to examine how we can boost the experience of control over one's living circumstances. Here lies an important task for behavioral public policy research that has introduced behavioral insights into governance with a focus on choice architecture.

Providing people with supportive choice environments may compensate for lack of self-control when people need to make important choices regarding, for example, health or personal finance (Bovens, 2008; Haws et al., 2016). Policy makers (and researchers as well) tend to concentrate on choice architecture at the microlevel (e.g., by changing the presentation of choice options in people's immediate surroundings generally known as 'nudges'; Hollands et al., 2013). Employing these nudging techniques has proven a feasible and effective strategy to facilitate desirable choices in various settings (Benartzi, Beshears, Milkman, Sunstein, Thaler, Shankar, et al., 2017). The same holds for 'boosting' interventions that aim to empower people by improving their decision making competence (Hertwig & Grüne-Yanoff, 2017). However, a sole focus on microenvironments may not suffice to create more favorable perceptions of one's environment more generally. The prototypical case of the obesogenic environment illustrates that affording healthy options in supermarkets or food outlets by different types of nudges is superior to 'just say no' approaches that advocate the resistance of food temptations (West & O'Neal, 2004). However, changing the microenvironment by placing nudges in particular hotspots (e.g., supermarkets) may prove powerless when food temptations are ubiquitous. Next to making changes in the micro-environment, behavioral public policies should therefore also target the macro-environment by creating arrangements that increase the experience of control over one's situation by city design or other kinds or regulations (e.g., by banning unhealthy snack outlets, pricing strategies or other interventions that target the 'system'; Chater & Loewenstein, 2022). All of this suggests that supporting policies are direly needed that may increase perceptions of control over one's circumstances by changing the wider environment beyond the immediate choice infrastructure.

We suggest a greater role for research examining the crucial relationships between self-control and perceived control, how their interplay is determined by people's living conditions and in turn impact health and well-being outcomes. We also advocate more attention to how each of these concepts may be influenced by supportive behavioral public policies. The figure below shows that some of these relationships are already well-known (as indicated by blue arrows) whereas others (with black arrows) have not yet been mapped and are awaiting empirical investigation. Thus far, it is known that public policies can impact living conditions and health and well-being outcomes. However, we lack insight into how these policies may support perceived control and self-control as the mediating mechanisms between living conditions on the one hand and health and well-being on the other. To illustrate, current public policies are often directly aimed at changing circumstances (e.g., facilitating access to health care or providing financial support for child care) without knowing whether such arrangements contribute to greater perceptions of control of the people involved. Taking into account to what extent such policies actually support people in having more grip on their lives – potentially also contributing to greater motivation for self-control – could greatly improve the intended policy effects. In a simar vein, a better understanding of how unfavorable circumstances affect willingness to control oneself could provide more insight into when and why people are motivated to control their immediate urges for the sake of long-term benefit of either themselves or the community as a whole.

Public policies for supporting perceived control over one's environment are important because in western cultures, already from young age people are socialized to strive for primary control over their environment and adjust it to their wishes and priorities (Rothbaum & Wang, 2010). These cultural narratives influence how people go about in their attempts at (strategic) self-control. Public policies could address these conceptions in public campaigns that have the power to shape popular beliefs about when and why people themselves are responsible for controlling themselves and when and why they can (or should) be facilitated by supporting arrangements. Importantly, introducing supportive policies might also impact cultural narratives about self-control by changing experiences with self-control. As such, these policies may challenge the strong conviction that people are in control over the environment whereas in reality they have few opportunities to do so with potential failure as a result (Klein & Helweg-Larsen, 2002). For that reason, perceived control should be furnished with arrangements that allow for some real control (Orton et al., 2019). After all, strategic self-control will be of little use in environments in which temptations are insistent and repeated. People can control their environments only if they have options. The obesogenic environment again demonstrates why this is the case: if it is impossible to navigate the city without

avoiding fast food restaurants, people's self-control is doomed to fail (De Ridder et al., 2013). This implicates that some degree of regulation at the macrolevel is required that allows people to experience control over their environment (e.g., by limiting the number of fast food outlets in the city center) and helps them to engage in strategic self-control. In the end, a concern with individuals' capacity to control themselves is not an alternative to some degree of regulation but requires it.

A greater role for regulating the environment in support of perceived control may generate discussion about paternalistic policies that interfere with autonomous citizen choice. Debate about microlevel choice architecture has exhibited concerns about the legitimacy of subtly guiding people's choices in the desired direction (Lepenies et al., 2018). These kind of concerns may be enhanced when behavioral policies address macrolevel circumstances. However, people tend to appreciate some support when making difficult choices (Evers et al., 2018; Reisch & Sunstein, 2016) even (and probably more) when they are aware of their own self-regulation weaknesses (Van Gestel et al., 2021), suggesting that many citizens would probably "[....] thank public officers for making the choice easy for them" (John, 2018, p. 110). Importantly, macrolevel interventions also offer new opportunities. Whereas microlevel policies have been criticized because people may not be fully aware of the subtle influences they are exposed to (De Ridder et al., 2022), macrolevel interventions have potential for actively involving people in the design of their surroundings in collaborative governance arrangements (e.g., neighborhood, work place) which may contribute to their experience of control (Ansell & Gash, 2007).

A stronger emphasis on increasing perceptions of control by involving people in the design of their surroundings may have additional benefits. Right now, people tend to consider self-control as a matter of mere willpower (controlling themselves) and do not recognize the potential of strategic self-control (controlling their environment) (Gennara et al., 2023; Li et al., 2024). Even young children tend to think that self-control is a matter of free will (Zhao et al., 2021). To the same extent that the cultural context shapes the development of the ability and motivation for self-control (Lindenberg, 2015; Trommsdorff, 2009), the institutional context of behavioral public policy may communicate expectations that become an integral part of what people believe about self-control. For example, in cultures where self-discipline is especially valued, people show a stronger preference for suppression of temptation rather than managing temptation (Li et al., 2018). This implicates that increasing perceptions of control critically depends on how macrolevel public policies are arranged. Bearing in mind that in particular for people living in disadvantaged neighborhood perceptions of control over the environment are low (Gillebaart & De Ridder, 2019; Orton et al., 2019) - with serious negative implications for their health and well-being - creating supportive environments is required for improving strategic self-control for people who are most vulnerable because of their unsupportive living circumstances.

5 | FUTURE RESEARCH DIRECTIONS

As already alluded to in Figure 1, a number of critical research questions arise from a stronger focus on the role of perceived control as compared with the traditional emphasis on self-control as the prime determinant of success in life (Tangney et al., 2004). First and foremost, we need to know more about how self-control and perceived control may mutually reinforce one another. It may be that perceived control boosts self-control as it is likely that people make more efforts to control themselves when they experience some influence over their living conditions. Likewise, when people make more efforts to control themselves they may feel that their circumstances are more amenable to change. Another important question is how both self-control and perceived control may be affected by favorable circumstances, such that people are more motivated to exert control and perceive greater control in environments signaling that one's actions matter. The latter also introduces new avenues for research in behavioral public policy that are currently characterized by a strong focus on targeting citizens to change their behavior – as for example, becomes apparent from abundant research on nudging (De Ridder et al., 2022). However, as the emphasis on individuals in policies employing behavioral insights has been called into question (Chater &
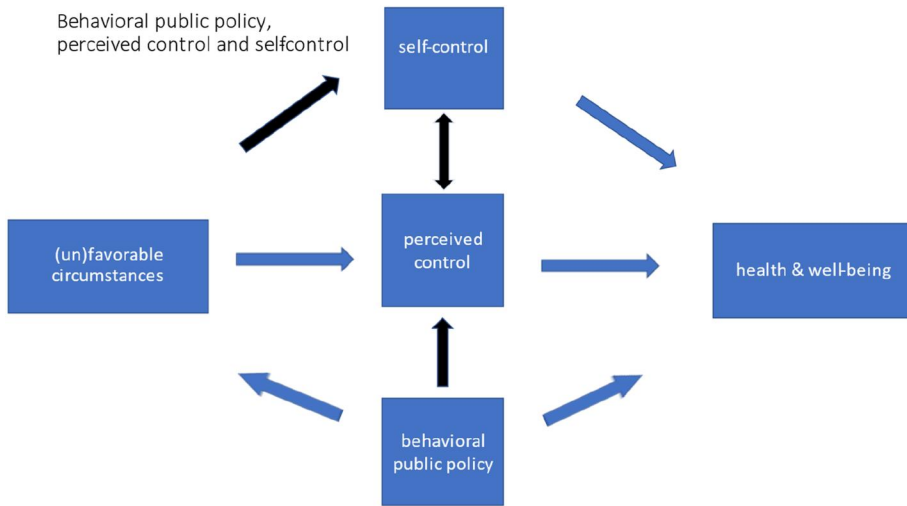
Behavioral public policy, perceived control and selfcontrol

FIGURE 1 Hypothesized relationships between circumstances, behavioral public policy, self-control, perceived control, and health and well-being.

Loewenstein, 2022), shifting research attention to circumstances that are conducive of self-control and/or perceived control seems warranted. Mapping possibilities of behavioral public policy to create circumstances that are favorable for the experience of control would then be the first step in providing people with the opportunity to experience more grip on their lives without holding them responsible for matters that are beyond their influence.

6 | CONCLUDING REMARKS

In the past decade, the focus of self-control research has shifted from the effortful inhibition of impulses to strategic self-control by highlighting the importance of situational strategies for avoiding or ignoring self-control challenges. However, despite the greater attention to strategically navigating tempting environments, research has continued to focus on the individual ability and motivation for self-control. In doing so, it has neglected in what way opportunities for controlling one's environment may determine options for engaging in self-control strategies. In the foregoing, we have argued that perceived control of one's surroundings is potentially decisive for the employment of strategic self-control. Importantly, the significant role of perceived control points to the relevance of designing public policy interventions that support more favorable experiences of one's environment by creating opportunities for actual control. Hence, we posit that the employment of strategic self-control strategies is likely restricted to situations in which a person recognizes chances for intervening. Next to increasing possibilities for strategic self-control, behavioral public policies are also important in shaping lay understandings of self-control that go beyond mere willpower. By creating better conditions for perceived control, policy arrangements may communicate that people can have a grip on their environment so as to employ strategies that go well beyond just trying to restrict themselves in the midst of many temptations. Finally, it is obvious that a greater role for perceived control by creating supportive policy arrangements does not make individual self-control approaches obsolete. However, improving strategic skills to deal with the environment may require more assistance from supporting environments than hitherto assumed.

CONFLICT OF INTEREST STATEMENT

None.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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