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# Study and leisure interference as mediators between students' self-control capacities and their domain-specific functioning and general well-being

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ABSTRACT

Study interference (i.e., studying is interfered by enjoyable alternatives) and leisure interference (i.e., leisure time is interfered by duties) are investigated as separate mediators between students' self-control capacities and their overall functioning ($N = 253$). Based on the assumption that both conflict experiences are associated with domain-specific outcomes, we calculated multiple mediator models with several indicators of students' domain-specific functioning as criteria, self-control as predictor, and students' tendency to experience motivational interference during studying (TMIS) and during leisure time (TMIL) as parallel mediators. As predicted, TMIS was the strongest mediator for measures of academic functioning, whereas TMIL was the strongest mediator for leisure functioning. With regard to general well-being, TMIL was the more consistent mediator. Findings are in line with the assumption that students' self-regulation difficulties are not only important for academic contexts but also for leisure contexts, especially when concepts of successful development include students' strivings in various life domains.



## 1. Introduction

> "An ideal student who routinely goes home after school, has a snack, studies until dinner (i.e., stays on task), then continues studying until bedtime is likely more academically successful than one who is not as focused on schoolwork. This goal-directed sequence of activities must often withstand a context that includes an array of attractive distractions, such as watching television or interacting with friends." (Bembenutty & Karabenick, 2004, p. 35).

In their opening to their interesting article, Bembenutty and Karabenick characterize the "ideal" student in a way that reveals a typical perspective applied in research on self-regulated learning in light of "tempting distractions" from the leisure domain. In our contribution, we aim to expand this perspective in order to highlight potential shortcomings of such an understanding of students as "learners" only. Imagine a student who is fully capable to exercise such an ideal behavior described in the quote (which, fortunately, is not very likely). The result would be a perfectly academically successful student with no friends and no other interests besides studying and achievement.

Of course, this scenario exaggerates both the scientific discussion on and everyday practices of the relationship between study and leisure time. However, a kernel of truth to this description cannot be denied. Most applied research on self-regulation or self-control in the educational context considers motivational and volitional problems of action control through normative lenses, which highlight some behaviors as more desirable than others. While most theoretical models go without such a normative coloring, operationalizations and semantics in empirical studies often draw on current social conventions, such as "business before pleasure" (e.g., De Ridder, de Boer, Lugtig, Bakker, & van Hooft, 2011; Fishbach & Shah, 2006; Van der Veen & Peetsma, 2011). However, from a perspective that regards the individuals' multi-domain psychosocial well-being and development as the central criteria of successful action regulation (e.g., Hofer, in press), it is by no means certain that such a perspective is sufficient.

In the current research, we address questions such as these by comparing both sides of students' study–leisure conflicts as typical self-regulatory challenges. By this we want to demonstrate that the interference of any goal-directed behavior, regardless of whether it is situated in an achievement or non-achievement context, is associated with important and sometimes domain-specific

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drawbacks. Specifically, we present a model that incorporates both students' study interferences due to pleasurable alternatives typically associated with the leisure domain *and* students' leisure interferences due to obligatory alternatives typically associated with the study domain as mediators between their self-regulation capacity and different measures of domain-specific functioning and general well-being.

### 1.1. Benefits and challenges of self-control

There is overwhelming evidence that the human capacity for self-control is essentially a good thing (e.g., Baumeister, Heatherton, & Tice, 1994; Carver & Scheier, 1998; De Ridder, Lensvelt-Mulders, Finkenauer, Stok, & Baumeister, 2012; Hofmann, Luhmann, Fisher, Vohs, & Baumeister, 2013; Tangney, Baumeister, & Boone, 2004). Self-controlled people seem better able to live a life in accordance with their goals, which makes them not only more successful in achieving these goals, but also happier (Hofmann et al., 2013). In the learning context, self-control has been recently identified as a critical variable that may explain academic success beyond cognitive abilities (Hofer, Kuhnle, Kilian, & Fries, 2012). Typically, self-control refers to "the ability to override or change one's inner responses, as well as to interrupt undesired behavioral tendencies and refrain from acting on them" (Tangney et al., 2004, p. 275). In terms of somewhat broader models of self-regulation (e.g., Carver & Scheier, 1998; Zimmerman, 2008), self-control concerns post-decisional or volitional (cf., Gollwitzer, 1990) processes that help people to bring their once chosen goals (e.g., "I want to get a good grade in the upcoming exam") to good end despite possible hindrances. According to Sokolowski (1997), there are two kinds of challenges that are important to master by means of volitional self-control: overcoming action-inherent aversive feelings and shielding against other current action tendencies. The former challenge refers to the case when people have to act on activities that are not inherently pleasurable or even displeasing, but that may be instrumental for attractive future outcomes. For example, students may find it effortful or even boring to study over weeks for an upcoming exam, but nevertheless they try to pull themselves together because they know that good grades are important for their career. The latter challenge—shielding against other current action tendencies—refers to the fact that at any given moment, many different action tendencies may be active within a person and are likely to interfere with any focal goal (cf., Atkinson & Birch, 1970; Hofer, 2007). For example, while studying on weekends or in the evening, many attractive action alternatives are available, such as chatting with friends, watching television, and so on. Hence, not only the motivational characteristics of the focal activity but also the motivational characteristics of potentially conflicting activities seem to be important when explaining self-regulatory drawbacks (Fries, Dietz, & Schmid, 2008). Interestingly, this seems to apply not only for activities for which, on average, intrinsic incentives are relatively low (e.g., studying), but also for activities with typically high inherent intrinsic motivational qualities, for example, leisure-related activities (Grund & Fries, 2012).

### 1.2. Different kinds of action conflicts and developmental outcomes

With regard to the present contribution, the case of conflicting action tendencies as a specific challenge of self-regulation (cf., Emmons, King, & Sheldon, 1993) is of central importance because it may direct attention to self-regulatory difficulties that are typically not regarded under the self-control paradigm (e.g., Fishbach & Shah, 2006; Metcalfe & Mischel, 1999). Most everybody would agree that students who struggle with their study activities and are cognitively and affectively drawn away by tempting leisure activities have a typical self-control problem. In such situations, students are likely to be faced with both challenges of self-control: suboptimal motivational and affective experiences (e.g., low intrinsic motivation and positive affect) with regard to the focal study activity and tempting alternatives. Students who possess rather high self-control capacities should be better able to overcome these hindrances, which should lead to academic success (e.g., Hofer et al., 2012; Hofer, Kuhnle, Kilian, Marta, & Fries, 2011). Academic success, in turn, is typically accepted as an important, albeit effortful, long-term goal, whereas leisure-related activities typically serve as examples for relatively unimportant, happy-go-lucky, short-term "temptations" or "distractions" (e.g., De Ridder et al., 2011; Fishbach & Shah, 2006; Van der Veen & Peetsma, 2011). But what about the reverse case?

Imagine students who cannot fully enjoy their leisure time because study duties continually occupy their thoughts. Does the shielding of leisure-related goal-pursuits against study activities resemble a case of self-control? Intuitively, the semantic field of this scenario frames such an interpretation as somewhat odd. Some might even say that such a shielding is pedagogically undesirable because academic success is less likely (e.g., see the initiatory quote). Nonetheless, leisure-related activities reflect or satisfy important long-term personal goals (e.g., Hofer et al., 2007), whereas achievement-related activities might not necessarily match one's core values, but rather may be the product of short-term external pressures. Most everybody should know of situations in which current external affordances and pressures interfere with highly self-concordant leisure-related strivings. Hence, in such cases, it is not the stopping of "inner" voices (Tangney et al., 2004), but the stopping of "outer" voices that is the central challenge of self-control. Not a lack of motivation, but the external demands of the situation prevent us from acting in accordance with our personal goals.

However, whereas in other applied social sciences, such as organizational psychology, the balance between work, family, and leisure time constitutes a central research topic (e.g., Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005; Netemeyer, Boles, & McMurrian, 1996), in educational psychology, a student often seems to be treated as only half a person who has only one identification: to study as much as possible. Consequently, in the few contributions that address the potential conflict between studying and other life domains, consequences of such conflicts have been mainly investigated with a focus on academic outcomes (e.g., Cooper, Valentine, Nye, & Lindsey, 1999). It seems rather trivial to find that the more resources (e.g., time, effort) are investigated in the academic domain, the better the outcomes in this specific domain. However, in terms of a more global developmental perspective that regards students' multidomain adjustment and overall well-being, a diversification of goals in different life domains seems to be crucial in order to avoid exclusive dependency and developmental dead ends (Heckhausen, Wrosch, & Schulz, 2010). When looking beyond purely cognitive educational outcomes, an adequate time distribution for different life domains can be seen as an indicator of personality development, which, in turn, constitutes an important higher-order educational goal (Hofer, in press). Leisure contexts, for example, may constitute an important complementary opportunity for the development of personal interest in relation to the requirements and guidelines of formal learning settings (Hofer, 2010).

In the end, which action is desirable and which is not is highly idiosyncratic (cf., De Ridder et al., 2011), and research findings may depend to a large extent on the normative perspective adopted, and consequently on the chosen criteria. For example, Van der Veen and Peetsma (2011, p. 236) considered students with pronounced long-