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Motivational profiles in study–leisure conflicts: Quality and quantity of motivation matter☆

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ABSTRACT

The effects of the quality and quantity of motivation were compared in relation to students' levels of experienced internal conflict in a specific study–leisure conflict using a person-oriented analysis on self-reports of 336 college students. Latent-profile-analysis identified three motivational profiles for learning and two motivational profiles for leisure. Consistent with a qualitative perspective on motivation, students with Good quality profiles for "reading papers" reported the least internal conflict under the temptation of a social activity. However, in accordance with the quantitative perspective on motivational interference, students with High quantity profiles for learning reported more internal conflict while imagining themselves socializing than students with Good and Poor quality profiles did. Similar effects for the leisure profiles and additional variable-oriented analyses confirmed the assumption that the quality of motivation best explains students' ongoing experience during a focal activity, whereas the effects of indirect motivational costs stemming from the motivational characteristics of missed activities are best described quantitatively.

1. Introduction

Recent theoretical and empirical developments indicate that students' motivation should be seen as a multidetermined phenomenon. On the one hand, the multidetermination of motivation refers to the notion that, in everyday-life, multiple reasons typically drive students' learning pursuits (e.g., Pintrich, 2003). For example, students may engage in learning because they are interested in the topic (i.e., usually construed as an intrinsic form of motivation) *and* because they want to please their parents (i.e., usually construed as an extrinsic form of motivation). On the other hand, the multidetermination of motivation refers to the notion that, in everyday-life, more than one motivational tendency is typically active at any given time and that these multiple tendencies may sometimes influence one another (e.g., Fries, Dietz, & Schmid, 2008). For example, a students' motivation to study in a specific situation (e.g., preparing for an exam in the evening) may conflict with the motivation for any concurrent leisure activity (e.g., spending the evening with friends). This paper deals with both cases.

One central implication of the first instance of the multidetermination of motivation is the notion that some types of motivation may yield more desirable outcomes than others, as has been extensively documented for intrinsic versus extrinsic forms of motivation (e.g., Reeve, Deci, & Ryan, 2004; Sansone & Harackiewicz, 2000) and for mastery versus achievement goals (e.g., Kaplan & Maehr, 2007; Sansone & Harackiewicz, 2000). According to these findings, the quality of motivation (i.e., *why* students learn) seems to be crucial to explaining learning behavior (cf. Vansteenkiste, Sierens, Soenens, Luyckx, & Lens, 2009).

However, little is known about these motivational processes with regard to the second instance of the multidetermination of motivation: the case of competing motivational tendencies. Would a student who resigns an attractive leisure opportunity in favor of studying experience more or less interference when intrinsic or extrinsic incentives are attached to the missed activity? Or would it be the sheer amount of motivation that accounts as indirect motivational costs of studying? And what would be the effect in a converse situation when leisure-related activities are interfered with by achievement-related activities?

To provide initial answers to these questions, I apply a person-oriented perspective of motivation that is able to examine both qualitative and quantitative aspects of motivation simultaneously.

1.1. Motivation to learn: quality of motivation matters

From a social-cognitive perspective, motivation can be broadly defined as "the process whereby goal-directed activity is instigated and sustained" (Schunk, Pintrich, & Meece, 2008, p. 4). Given this premise, motivation constitutes a key variable of self-regulation and is thought to influence the active planning, maintenance, and reflection of one's actions (Zimmerman, 2000). Two general perspectives of motivated behavior can be distinguished: motivation as a drive and motivation as

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directed by goals (e.g., Covington, 2000). In general, drives are seen as "affectively based dispositions that energize behavior," whereas goals are seen as "cognitive representations that serve a directional function for behavior" (Elliot, McGregor, & Trash, 2002, p. 373).

In contemporary educational psychology, self-determination theory has become one of the most prominent representatives of a drive theory of motivation, whereas achievement goal theory has gained a lot of attention in explaining students' achievement behavior from a social-cognitive perspective of motivation (Kim, Schallert, & Kim, 2010). While both approaches have their unique merits, they share the focus around qualitative distinct forms of motivation (Corpus, McClintic-Gilbert, & Hayenga, 2009; Eccles & Wigfield, 2002; Kim et al., 2010). For example, in self-determination theory, intrinsic and external types of regulation are viewed as constituting the most extreme points of the self-determination continuum, from autonomous to controlled motivation (Deci & Ryan, 2000). When students regulate their learning activities intrinsically, their reasons for engaging are fully internalized. In contrast, during external regulation, students' behavior largely depends on external contingencies controlled by others, such as rewards and punishments.

In addition, at least three forms of motivation are distinguished in achievement goal theory: performance-approach, performance-avoidance, and mastery goals (e.g., Elliot & McGregor, 2001; Kaplan & Maehr, 2007). According to this trichotomous conception, students with a disposition toward performance-approach goals learn because they wish to demonstrate their competence in relation to others, whereas students with a disposition toward performance-avoidance goals learn because they want to avoid or conceal negative outcomes. In contrast, students who endorse mastery goals engage in learning because they want to develop their competence and improve themselves.

Much of the educational importance of both approaches comes from the underlying assumption that not only the quantity of motivation (i.e., *how much* students are motivated) but also (or even more so) the quality of motivation (i.e., *why* students learn) matters (e.g., Vansteenkiste et al., 2009). In other words, different forms of motivation are thought to be differentially related to learning outcomes. Typically, both intrinsic reasons as well as mastery and performance-approach goals have been identified as more favorable forms of motivation, relating positively to a range of desired learning outcomes. On the contrary, external reasons and performance-avoidance goals have been identified as more unfavorable forms of motivation, relating positively with undesired and negatively with desired learning outcomes (see Kaplan & Maehr, 2007; Reeve et al., 2004, for recent overviews).

For example, intrinsic reasons usually relate positively to deeper learning, a positive learning attitude (Vansteenkiste, Zhou, Lens, & Soenens, 2005), and academic performance (Lepper, Corpus, & Iyengar, 2005; Vansteenkiste, Simons, Lens, Soenens, & Matos, 2005). In addition, findings have consistently revealed that mastery goals are positively linked to academic interest (Harackiewicz, Barron, Pintrich, Elliot, & Thrash, 2002; Harackiewicz, Barron, Tauer, & Elliot, 2002; Lee, McInerney, Liem, & Ortiga, 2010), deeper learning (Liem, Lau, & Nie, 2008), and positive achievement emotion (Pekrun, Maier, & Elliot, 2009). Furthermore, despite some notable ambiguities (Harackiewicz, Barron, Pintrich et al., 2002; Midgley, Kaplan, & Middleton, 2001), performance-approach goals have been found to be positively linked to performance outcomes (Elliot & Church, 1997; Harackiewicz, Barron, Pintrich, et al., 2002; Pintrich, 2000) and sometimes to academic motivation (Lee et al., 2010; Wolters, 2004).

In contrast, researchers have repeatedly found extrinsic reasons to relate positively to superficial learning, a negative learning attitude (Vansteenkiste et al., 2005), and poor performance (Lepper et al., 2005; Vansteenkiste et al., 2005), and performance-avoidance goals have been found to be negatively linked to interest and performance outcomes (Elliot & McGregor, 2001; Harackiewicz et al., 2002; Liem et al., 2008).

However, self-determination theory and achievement goal theory as prominent approaches to academic motivation also share an important shortcoming. They regard motivated behavior as a rather isolated phenomenon that depends only on the motivational characteristics tied to the focal learning activity itself. In the following, I will argue that from a motivational interference perspective, in order to understand students' motivation to learn, it may be essential to understand the ways in which they engage in other life domains, highlighting the idea of indirect motivational costs of current engagement.

1.2. Indirect motivational costs in study–leisure conflicts: quantity of motivation matters

Achievement goals and academic motivation are usually not the only motivational tendencies that energize and direct students in learning settings (Boekaerts & Corno, 2005; Hofer, 2007). In everyday life, self-regulated learners typically not only have to decide whether to learn and how much effort to invest, they also have to consider the allocation of their limited resources to their various, and sometimes contradictory, needs and goals (Fishbach, Zhang, & Koo, 2009). If we think, for example, about the numerous work-related, leisure, and social activities university students pursue (Brint & Cantwell, 2010), it seems only natural that, from time to time, they may feel torn between competing motivational tendencies; that is, they experience *motivational interference*.

Motivational interference denotes the post-decisional destabilization of self-regulation during a focal activity, resulting from motivational tendencies that stem from forgone activities in a specific conflict situation (Fries & Dietz, 2007; Fries et al., 2008). According to this idea, students' self-regulatory processes during learning are not only affected by their motivation to learn but also by their other interests and needs. During learning, for example, motivational tendencies for leisure opportunities may influence how well students regulate their focal learning pursuit in terms of persistence, concentration, and affect.

Because motivational interference constitutes a process rather than an overt outcome, it has to be inferred. Usually this has been done by demonstrating a direct positive link between the motivational strength of a missed alternative and proxies of self-regulatory destabilization during a focal activity in situations of specific study–leisure conflicts. In general, such proxies may encompass cognitive, affective, and behavioral aspects of an internal conflict experience (Fries et al., 2008, see also Schmid, Hofer, Dietz, Reinders, & Fries, 2005). For example, if students decide in favor of studying as opposed to a leisure activity, their internal conflict experience may be manifested in a worse mood, less concentration, and less persistence during studying. Similarly, students may experience internal conflict if they decide for the leisure activity in a study–leisure conflict.

In a correlational study among school students, Fries et al. (2008) demonstrated that students' internal conflict experience during a focal activity was better explained when related to the motivational characteristics of both conflicting activities. Specifically, after the decision for a learning activity in a hypothetical conflict scenario, motivation to learn related negatively to the experience of internal conflict, whereas motivation for conflicting leisure opportunities related positively to the experience of internal conflict. Interestingly, evidence for a similar but inversed motivational interference process was observed when students were asked to decide for the leisure alternative (see also Dietz, Schmid, & Fries, 2005).

Recently, Grund and Fries (2012) demonstrated such a motivational interference process by empirically reviving the concept of motivational costs (cf. Atkinson & Birch, 1970; Eccles & Wigfield, 2002). Whereas direct motivational costs include the negative task value that is part of activity engagement itself (e.g., effort and emotional costs), indirect costs arise because engagement in one task often discounts positive valued incentives attached to other action opportunities (Eccles & Wigfield, 2002). While studying, for example, anticipated incentives of missed