



## Empirical study

# Adolescents' autonomous functioning and implicit theories of ability as predictors of their school achievement and week-to-week study regulation and well-being

Athanasios Mouratidis<sup>a,\*</sup>, Aikaterini Michou<sup>b</sup>, Aikaterini Vassiou<sup>c</sup><sup>a</sup> Department of Psychology, Hacettepe University, Beytepe Campus 06800, Ankara, Turkey<sup>b</sup> Graduate School of Education, Bilkent University, 06800 Bilkent, Ankara, Turkey<sup>c</sup> Department of Primary Education, University of Thessaly, Volos, Greece

## ARTICLE INFO

## Article history:

Available online 14 September 2016

## Keywords:

Motivation  
 Implicit theories  
 Self-determination  
 Academic achievement  
 Students  
 Diary study

## ABSTRACT

Research on students' motivation has mainly focused on interpersonal differences rather than on the ongoing, intrapersonal dynamics that forge students' everyday life. In this five-month longitudinal (diary) study, we recruited a sample of 179 high school students from Greece (35.8% males;  $M_{\text{age}} = 16.27$ ;  $SD = 1.02$ ) to investigate through multilevel analyses the ongoing dynamics of students' motivation. We did so by examining the relation between autonomous functioning and aspects of study regulation (namely, study efforts and procrastination) and well-being (namely, subjective vitality and depressive feelings). After controlling for perceived competence, we found week-to-week autonomous functioning to relate positively to study efforts and subjective vitality and negatively to procrastination and depressive feelings. Interestingly, implicit theories of ability - the degree to which one believes that ability is fixed or amenable - were found to moderate the week-to-week relations of autonomous functioning to study efforts and homework procrastination. In particular, autonomous functioning co-varied positively to study efforts and negatively to homework procrastination only among students who believed that ability is malleable. Also, beliefs that ability is fixed predicted poorer grades, lower mean levels of study efforts, and higher homework procrastination. The results underscore the necessity of taking a more dynamic view when studying motivational phenomena and the importance of jointly considering the implicit theory framework and self-determination theory.

© 2016 Elsevier Inc. All rights reserved.

## 1. Introduction

Students experience several ups and downs within a school year. At times they may be fully committed to do their homework and experience higher well-being while at other times they may tend to procrastinate their homework and feel despondent. The issue of week-to-week fluctuation of students' study regulation and well-being has received far less attention compared to the research question of why some students, on average, better regulate their study behavior and affect than others. This is an important oversight because investigating the intrapersonal fluctuations of students' motivational processes and outcomes in conjunction with the interpersonal differences can help us better comprehend the ongoing dynamics that students experience in their everyday lives.

Other things being equal, we propose that students' intrapersonal fluctuation of study regulation and well-being corresponds to a respective fluctuation of autonomous functioning (as reflected by students' awareness of self, which we consider an important element of people's disposition for autonomous functioning - see Weinstein, Przybylski, & Ryan, 2013). Specifically, we aimed to investigate to what extent the week-to-week fluctuation of students' autonomous functioning co-varies with two markers of study regulation (i.e., study efforts and homework procrastination) and two markers of well-being (i.e., subjective vitality and depressive feelings).

Further, we examined whether this co-variation differs among students who differ in implicit theories they hold about ability. Implicit theories refer to the beliefs that students hold about the nature of the ability; that is, whether ability is a fixed trait or can be developed through effort and practice (Dweck, 1999). By focusing on implicit theories, we aimed to test whether such ability beliefs moderate the week-to-week associations of autonomous functioning to study regulation and perhaps to well-being. In doing

\* Corresponding author.

E-mail addresses: [athanasios@hacettepe.edu.tr](mailto:athanasios@hacettepe.edu.tr) (A. Mouratidis), [aliki.michou@bilkent.edu.tr](mailto:aliki.michou@bilkent.edu.tr) (A. Michou), [ekvasiou@uth.gr](mailto:ekvasiou@uth.gr) (A. Vassiou).

so, we attempted to put two of the most influential motivational theories in educational contexts, Self-Determination Theory (SDT; Deci & Ryan, 2000) and implicit theories of ability (Dweck, 1999) next to each other to shed some light on the dynamics of students' week-to-week school-related functioning. Also, after controlling for academic perceived competence, we investigated whether ability beliefs predict grades five months later.

### 1.1. Autonomous functioning

According to SDT (Deci & Ryan, 2000), students may study because they feel coerced to do so due to some internal or external pressures or because they truly want it. When they perceive studying as a should-be task, they are presumed to be under some internal or external pressure, and thus to be controlled motivated. In contrast, when they consider studying as an enjoyable or valuable activity, they are said to function in an autonomous way; that is, to be more authentic, and thus to have better access to their motives, emotions, and the true meanings underpinning their actions (Weinstein et al., 2013). In our research we focused on awareness of self - the self-knowledge that is accessible and available upon request by one's self - as one of the key elements that characterizes the reflective and thoughtful endorsement of one's action and eventually one's autonomous functioning (Ryan, Huta, & Deci, 2008).

Numerous studies focusing on interpersonal differences in educational contexts have shown that autonomous functioning, as compared to controlled functioning, is linked with more desired outcomes such as better concentration (Vansteenkiste, Zhou, Lens, & Soenens, 2005) higher well-being (Guay, Ratelle, & Chanal, 2008) and less homework procrastination (Katz, Eilot, & Nevo, 2014; Senecal, Julien, & Guay, 2003). Most likely, this is because one of the core concepts of autonomous functioning - awareness of self - has been related to higher inhibitory-control which is necessary for executive functioning in school-related tasks (Oberle, Schonert-Reichl, Lawlor, & Thomson, 2012). Furthermore, a few diary studies which have been conducted so far have shown that daily autonomous functioning, as reflected through autonomous motivation (Bartholomew, Ntoumanis, Ryan, Bosch, & Thogersen-Ntoumani, 2011; Gagné, Ryan, & Bargmann, 2003) or through daily need satisfaction (Bartholomew et al., 2011), relates positively to well-being in adolescents (Gagné et al., 2003) or young adults (Moller, Deci, & Elliot, 2010; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000; Sheldon & Niemiec, 2006; Sheldon, Ryan, & Reis, 1996).

Taken together, the literature suggests that autonomous functioning predicts both interpersonal differences and intrapersonal fluctuations of desired correlates. However, the degree of confluence between autonomous functioning and positive correlates at the intrapersonal level has been mainly investigated with respect to affective correlates. There is much to be known with respect to behaviors that are partly determined by the affordances and the constraints that are set by the school context. In particular, while it makes sense, according to SDT (Deci & Ryan, 2000), to expect autonomous functioning to co-vary with well-being at the intrapersonal level, we cannot tell for sure that a similar co-variation also includes ostensibly should-be behaviors, such as homework study, that a student may have only partly, if at all, internalized. Drawing from SDT, we expect that this may be true for study-related behaviors, but to the best of our knowledge no empirical data have shown such a link yet. Providing evidence that regardless of its intrapersonal fluctuation across time, autonomous functioning does relate not only to well-being but also to study regulation at the intrapersonal level in a consistent manner will underscore the beneficial role of autonomous functioning on tasks,

such as doing homework, which are not always perceived as inherently enjoying (Deci, Eghrari, Patrick, & Leone, 1994).

Furthermore, it remains unclear whether the degree of confluence between autonomous functioning and study regulation differs among students, depending on the beliefs they may hold about the importance of effort. To investigate this possibility, we relied on Dweck's conceptualization of students' implicit beliefs about the nature of ability - to what extent they believe that ability can be developed, presumably through effort, or remains relatively stable across time (Dweck, 1999). We opted for ability beliefs because they are considered to predict effort in school-work (Bodill & Roberts, 2013; Hong, Chiu, Dweck, Lin, & Wan, 1999).

### 1.2. Implicit ability beliefs

In their influential work, Carole Dweck and associates have shown that the lay theories that people hold about whether human attributes are fixed or malleable result in different psychological processes and outcomes (Dweck & Leggett, 1988; Molden & Dweck, 2006). Dating back to '80s Dweck (1986) has started investigating why students of the same ability may exhibit totally different motivational patterns after failure. She reasoned, and showed, that students who believed that ability is a fixed trait, displayed a maladaptive response pattern after failure compared to students who believed that ability can be developed through effort and mastery striving. Although Dweck found no differences in persistence and challenge-seeking between students holding either entity or incremental beliefs after success, she revealed that compared to students with incremental beliefs, their counterparts with entity beliefs exhibited less resilience after failure as they were less likely to persist and seek any further challenges (Cain & Dweck, 1995; Dweck & Leggett, 1988).

An ever growing body of research has indicated that students holding incremental beliefs, as compared to those holding entity beliefs, show a more adaptive response pattern in a wide array of outcomes that extend from the academic domain to the social one (Burnette, O'Boyle, VanEpps, Pollack, & Finkel, 2013; Yeager & Dweck, 2012; Yeager, Trzesniewski, & Dweck, 2013; Yeager et al., 2014). Relevant to the focus of our study, past research has indicated that students who favored incremental over entity beliefs have higher grades (Romero, Master, Paunesku, Dweck, & Gross, 2014), endorse more learning goals (Blackwell, Trzesniewski, & Dweck, 2007), use better reading strategies (Braasch, Braten, Stromso, & Anmarkrud, 2014), and practice more (Cury, Da Fonseca, Zahn, & Elliot, 2008). Conversely, entity beliefs have been linked with decreases in intrinsic motivation (Haimovitz, Wormington, & Corpus, 2011) and academic disengagement (Martin, Nejad, Colmar, & Liem, 2013).

Taken together, these findings suggest that students who hold incremental beliefs are more likely to succeed academically, most likely because they use more effective studying strategies - for instance, by putting more effort in homework tasks and by procrastinating less. Indeed, study efforts have been found to relate positively to incremental beliefs (Jones, Wilkins, Long, & Wang, 2012) and negatively to entity beliefs (Bodill & Roberts, 2013) whereas procrastination has been associated positively with entity beliefs (Howell & Buro, 2009).

An issue, which has only partly addressed relates to whether ability beliefs, can predict students' study efforts and procrastination, irrespectively of how much these fluctuate from week to week. Showing such a relation would provide further evidence of the potential pervasive role of such cognitions on students' study-related functioning. Ability beliefs might also predict students' week-to-week fluctuation of subjective vitality and depressive feelings. However, such a relation seems less likely because these affective correlates seem conceptually more distant from

Download English Version:

<https://daneshyari.com/en/article/4937923>

Download Persian Version:

<https://daneshyari.com/article/4937923>

[Daneshyari.com](https://daneshyari.com)