A Theoretical Model of the Antecedents of Educational Goal Commitment

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Abstract

The transition from high school to college is a key point in students' educational route. During this transition, the ability to formulate an educational goal and the will to actively engage with this goal are assumed to lead to favorable academic outcomes. However, students differ in their commitment to their educational goal, which may translate into differences in goal implementation. How can we explain such differences? A theoretical model of the factors influencing students' commitment to their educational goal is proposed. This model is composed of two proximal antecedents—goal importance and expectancy of goal achievement—and two distal antecedents—goal abstraction and goal integration. The proximal antecedents are mainly based on the expectancy-value framework (Eccles & Wigfield, 2002), and the distal antecedents on the assumptions relative to the hierarchical goal structure (Carver & Scheier, 1998).

The transition from high school to college is a key point in students' educational trajectories, as it requires them to make educational choices, which have a considerable impact on their future career prospects. Traditionally, vocational psychology has focused on the processes of interests development and career decidedness (e.g., Lent, Brown, & Hackett, 1994; Osipow, 1999). However, Germeijs and Verschueren (2006) have suggested another task for students after they have decided on their future programs of study: they have to commit to a particular educational or career goal. Richardson et al. (2009) have argued that what is specifically important for students is to generate intentions regarding future life and to be actively engaged with these intentions. Several theoretical and empirical arguments support this argument.

The ability to formulate educational goals should be crucial during the transition from high school to college (Hirschi & Vondracek, 2009). Goal theorists claim a positive relationship between academic aspirations and academic success. This is due to the behaviors in which students engage when they have strong aspirations (Ames, 1992; Eccles-Parsons et al., 1983; Harackiewicz, Barron, & Elliot, 1998; Locke & Latham, 2002; McGregor & Elliot, 2002; Meece, Eccles-Parsons, Kaczala, Goff, Futterman, 1982). Based on theoretical models (e.g., Eccles-Parsons et al., 1983; Lent et al., 1994; Meece et al., 1982; Tinto, 1993) and empirical research on student attrition and achievement (e.g., Eccles, Vida, & Barber, 2004; Gerdes & Mallinckrodt, 1994; Neuville et al., 2007; Pascarella & Terenzini, 1980), it has been showed that high-school students' commitment to their educational goal is an important factor in the explanation of achievement-related behaviors (i.e., choice actualization, commitment to the chosen field of study, academic adjustment at the beginning of higher education), which are in turn predictive of college students' academic achievement (Germeijs & Verschueren, 2007). Goals serve as guides, providing both direction and energy for behavior. As students develop these aspirations or goals, they construct a purpose for engaging in activities related to goal achievement (Pizzolato, 2006). To move from commitment to achievement, they regulate their

behavior to improve their chances of achieving their goals (Eccles, Wigfield, & Schiefele, 1998; McGregor & Elliot, 2002; Wentzel, 1991).

However, not everyone is equally committed to their personal goals (Locke & Latham, 1990). Students differ in their commitment to their educational goals, which may translate into differences in goal implementation and, therefore, in goal achievement (Note 1). How can we explain such differences in students' commitment? Do the representations students have of their educational goal influence their commitment to this goal? Are people more committed to attaining an abstract goal (expressing an identity to be developed), than a concrete goal (expressing an action to be completed)? Does the perception of links between the educational goal and other goals contribute to this commitment? In other words, is goal commitment affected by goal abstraction and goal integration, and do these dimensions interact in their influence on that commitment?

Few studies have investigated the antecedents of goal commitment, and most of these have focused on assigned goals (Hollenbeck & Klein, 1987; Locke & Latham, 2002). We address this research gap by developing a theoretical model of the antecedents of students' commitment to their own personal educational goals. Identifying these antecedents could contribute to improving guidance for students as they develop their educational objectives. We first present the current state of research on goal commitment and then outline why studying its antecedents is theoretically important. Then we explore how the expectancy-value framework (Eccles & Wigfield, 2002) and the hierarchical goal structure (Carver & Scheier, 1998) may contribute to a better understanding of these antecedents. Based on these frameworks, we suggest a theoretical model of the antecedents of educational goal commitment, which may have implications for both research and practice in vocational counseling.

Goal Commitment

Goals can be generally viewed as cognitive representations of the things we wish to accomplish (Harackiewicz et al., 1998). Goal commitment is defined as the extent to which a particular goal is associated with a strong sense of determination and with the willingness to invest effort in attaining it (Brunstein, 1993; Hollenbeck & Klein, 1987). Empirical studies have identified positive consequences of goal commitment, which include persistence and performance in pursuit of the goal, as well as some dimensions of psychological well-being (e.g., positive emotions) (Brunstein & Gollwitzer, 1996; Pomerantz, Saxon, & Oishi, 2000). Germeijs and Verschueren (2007) have investigated goal commitment in the more specific context of career decision-making processes among final-year high-school students—educational goal commitment. An educational goal is defined as the goal students are pursuing by choosing their program of study. Their results suggest that educational goal commitment is the most important predictor of choice satisfaction, choice stability, and adjustment in the chosen option, and therefore is an indirect predictor of performance.

Studies of the antecedents of goal commitment have mainly been conducted in the framework of goal-setting theory (Hollenbeck & Klein, 1987; Locke & Latham, 2002). Hollenbeck and Klein (1987) developed a model with two proximal antecedents that directly influence goal commitment, and two categories of distal antecedents that indirectly influence goal commitment through their impact on proximal antecedents. The two proximal antecedents are the attractiveness and the expectancy of goal attainment. These antecedents are, in turn, influenced by two categories of factors: (a) situational factors (e.g., reward structures, performance constraints, supervisor supportiveness), and (b) personal factors (e.g., need for achievement, organizational commitment, job involvement). However, most goal-setting studies have focused on assigned goals (quite common in an organizational context). Most of the factors identified may therefore be specific to this type of goals and not relevant to personal goals. Further research is needed to explore how

commitment to a personal goal develops.

There is evidence to suggest that people invest more effort in attaining personal goals than assigned ones (Downie, Koestner, Horberg, & Haga, 2006). However, it is not necessarily the case that all subjects are equally committed to their personal goals (Locke & Latham, 1990). In the context of career decision-making, Germeijs and Verschueren (2006) highlighted some antecedents of commitment to a personal goal. They found that how individuals cope with decisional tasks preceding goal commitment determines the strength of that commitment. More specifically, the quality of the choice process (e.g., the number of explorations made) has a positive impact on commitment to the chosen educational goal. However, Germeijs and Verschueren's model only considers antecedents that are part of the decision-making process. Wrosch and his colleagues have suggested additional antecedents of commitment to a personal goal (Wrosch, Miller, Scheier, & Brun de Pontet, 2007; Wrosch, Scheier, Miller, Schulz, & Carver, 2003), including the characteristics of the goal itself. The aim of the present paper is to develop a theoretical model based on this suggestion, and therefore to identify characteristics of personal goals that potentially influence commitment to these goals. More specifically, we postulate goal importance and expectancy of goal achievement, as proximal antecedents, and goal abstraction and goal integration,

as distal antecedents of goal commitment.

Goal Importance and Expectancy of Goal Achievement

The proximal antecedents investigated by studies of commitment to assigned goals are quite general antecedents, not specific to the type of goal. By contrast, the distal antecedents seem to be much more specific to the assigned goals in an organizational context (Hollenbeck & Klein, 1987). These proximal antecedents might therefore also be valid for personal goals. Commitment to a personal goal would then be influenced by the value of the goal and the expectancy or probability of goal achievement, as perceived by the individual. Expectancy of goal achievement is defined as a personal belief about one's ability to pursue and attain the goal. Among the four components of goal value, goal importance will be more specifically the focus of our investigation due to its particularly strong link to goal commitment. Goal importance can be defined as the personal perception of the attainment value attached to this goal (Eccles & Wigfield, 2002).

Some theoretical and empirical arguments can be found to support these proximal antecedents of the commitment to a personal goal. The expectancy-value model assumes that expectancy and task value influence task choice, self-regulation, persistence, and performance (Eccles & Wigfield,

2002). In their studies of educational and career choices, Eccles and her colleagues found support for the role of both expectancy of success in the choice, and the value attached to the choice (Durik, Vida, & Eccles, 2006; Eccles, Barber, & Jozefowicz, 1999; Updegraff, Eccles, Barber, & O'Brien, 1996). Expectancies for success are defined as individuals' beliefs about how well they will do on upcoming tasks (Eccles & Wigfield, 2002). The value of a task (i.e., individuals' perception of how a task meets their needs) has four components: attainment value, intrinsic value, utility value, and cost (Eccles-Parsons et al., 1983). One of these components, attainment value, is defined as the personal importance of doing well at the task. The construct of attainment value is quite similar to that of goal importance, as are the constructs of expectancies for success and for goal achievement. Moreover, the study of task choice—the decision on whether or not to begin or to continue to invest in a given task or activity—can be related to the study of goal commitment.

These constructs are of course different, since attainment value, expectancies for success, and task choice are constructs applied to a task, whereas goal importance, expectancy of goal achievement, and goal commitment are constructs applied to a goal; task choice is a dichotomous construct whereas there can be varying degrees of goal commitment. However, given that their content is quite

similar, we postulate that Eccles and Wigfield's (2002) work on the link between task choice on the one hand, and attainment value and expectancies for success on the other hand, is informative for our investigation of the relationship between goal commitment, goal importance, and expectancy of goal achievement. Some support for this assumption can be found in studies based on expectancy-value models of motivation. Klinger, Barta, and Maxeiner (1980) showed that goal commitment is positively predicted by goal value and goal expectancy. Moreover, a study by Boudrenghien, Frenay, and Bourgeois (2011) was found to more specifically show the positive links between commitment to an educational goal on the one hand, and goal importance and self-efficacy toward this goal on the other hand. However, this study was correlational and, therefore, could not provide any information about the causality of these relationships.

Based on other theoretical frameworks, two studies have provided additional support for the link between goal importance and goal commitment. Working on goal disengagement, Wrosch et al. (2007) suggested that some goals are more difficult to renounce than others because of their centrality to an individual's self-concept. However, this suggestion is not based on empirical evidence. In the framework of the theory of planned behavior (Ajzen, 1991), goal importance has been found to predict individuals'

determination to achieve their goal (Sideridis, 2001).

Goal Abstraction and Goal Integration

Carver and Scheier (1998) suggest that the importance of a goal is, in turn, influenced by its position within an individual's goal hierarchy, which is determined by its degree of integration into this hierarchy and its level of abstraction. Since commitment is influenced by goal importance, importance is hypothesized to mediate the impact of goal integration and abstraction on commitment. As an illustration of this mediation model, consider a student who chooses to study medicine. This student pursues an educational goal by choosing medical studies (e.g., to become a doctor, to train in neuroscience, to become a graduate, to work in a maternity hospital). We suggest that his/her representation of this educational goal at a given place within his/her hierarchical goal structure influences the commitment to that goal, because this placement conveys a certain importance to the goal.

Based on studies by Carver and Scheier (1998) and Sheldon and Kasser (1995), we define the degree of integration of a goal as the extent to which the goal is linked to other goals within the hierarchy. More specifically, when a goal is perceived as integrated, it means that the achievement of this goal is perceived as contributing to the pursuit of other goals at the same or higher levels of the hierarchy, and that the achievement of that

goal is perceived as depending on the achievement of other goals at the same or at lower levels of the hierarchy. For example, a person who perceives his/her goal as integrated sees clearly how other goals he/she is pursuing will help him/her achieve this goal. Goal importance increases according to the number and significance of links with other goals in the hierarchy. In other words, a goal that is linked to other goals is more important than an isolated goal.

A goal that is formulated at a high level of abstraction concerns being a particular kind of person (a be-goal), whereas a goal that is formulated at a low level of abstraction concerns completing a particular kind of action (a do-goal) (Carver & Scheier, 1998). The concept of goal abstraction, as defined by these authors, only has to be understood as distinguishing goals that describe what sort of person one wants to become, from goals that describe the action one wants to complete. A be-goal is represented at the higher levels of the hierarchical goal structure and generally applies for a long time, whereas a do-goal is represented in the lower levels of the hierarchical goal structure and generally applies for a short time. Within the hierarchy, a do-goal is supposed to be a subgoal that (in)directly contributes to the attainment of a be-goal. In their theoretical framework, Carver and Scheier (1998) actually defined more specific levels than this distinction between be-goals and do-goals (e.g., principles, programs, sequences), but they

did not much elaborate these specific distinctions. Goal importance is assumed to depend on the level of goal abstraction defined as distinguishing be- and do-goals. More specifically, be-goals at higher levels of abstraction are more fundamental to the over-riding sense of self, and are therefore intrinsically more important than do-goals at lower levels of abstraction.

Abstraction level and degree of integration have rarely been empirically studied with reference to the model developed by Carver and Scheier (1998). Other theories, conceptually similar, have been empirically tested, but these studies have typically focused on only one of the two dimensions. On the one hand, previous research on abstraction level (Emmons, 1992; Vallacher & Wegner, 1989) has investigated the distinction between general and specific goals, but has focused only on goal characteristics (i.e., general, distal or abstract compared to specific, proximal or concrete goals), and not on the links between goals. On the other hand, studies of the degree of integration (Sheldon & Emmons, 1995; Sheldon & Kasser, 1995) have looked at the links between goals, but without taking goal characteristics into account.

Our aim is to integrate the nature of goals and the links between goals into one model. As other researchers have pointed out, to date too little research has connected future goals and proximal subgoals (Husman & Lens, 1999; Miller & Brickman, 2004; Schultz, 1997). However, Tabachnick, Miller, and Relyea

(2008) suggested that high student drop-out rates in college could be due to the fact that at least some students are not aware of their own goals, and have not thought much about aligning their future goals and proximal subgoals in a coherent way. An approach combining the nature of goals (their abstraction level) and the links among them (the degree of integration) could fill this gap.

To develop such an approach connecting goals and subgoals, we need two components: (a) a distinction between be-goals (i.e., in general, future goals) on the one hand, and do-goals or subgoals on the other hand (as given by the construct "abstraction level"), and (b) the way these goals are linked to each other (as given by the construct "degree of integration"). Carver and Scheier (1998) suggested combining these two components when they assumed that there are hierarchical links between abstract and concrete goals: abstract goals are at the top of the hierarchy, whereas concrete goals are at the bottom. Two studies investigated goal abstraction level within this hierarchical model (Bay & Daniel, 2003; Lawson, 1997). In their results, the authors showed that knowledge of goal abstraction level is necessary for a complete understanding of the decision-making process. However, although these studies were conducted with reference to the hierarchical goal structure, only the abstraction-level dimension was taken into account; the degree of integration of the goals was not investigated. Our review

of the literature has identified only one study investigating assumptions relative to both goal abstraction and to goal integration (Boudrenghien et al., 2011). This study showed a mediation of the impact of those aspects of goal representation on goal commitment, by goal importance. However, the design was correlational and therefore did not allow causal relationships to be tested.

The investigation of abstraction and integration within the same model allows us to raise the question of the potential interaction between these dimensions (Austin & Vancouver, 1996). We assume that abstraction and integration interact in their impact on goal commitment and that be-goals do not necessarily always enhance this commitment. Indeed, Carver and Scheier's (1998) assumption that be-goals are more important than do-goals seems to be in contradiction with the proposition that clear and specific proximal goals result in greater intrinsic motivation, personal satisfaction, self-efficacy, persistence, and performance than vague, general and distal goals (Bandura, 1986; Locke & Latham, 2002; Schunk, 1990; Zimmerman, 1989). This proposition is, however, qualified by Bandura who recognized the role of long-term goals in human motivation when he said: "The anticipation of distal outcomes provides general direction for choosing activities, and it raises the level of involvement in them" (1986, p. 336). Furthermore, Bandura suggested that personal development is best served by

combining distal aspirations with proximal self-guidance. The interest of this combination can be explained by the reciprocal influence between goals and subgoals (Miller & Brickman, 2004; Schultz, 1997). The initial commitment to a valued distal goal is the catalyst for developing proximal goals and giving them meaning. Then, as the system of subgoals becomes clearer, and particular subgoals are achieved, the level of commitment to the future goals grows stronger.

Integrating these various assumptions with Carver and Scheier's (1998) suggestions, we postulate the following interaction effect. We hypothesize that the positive impact of goal abstraction on goal commitment will appear when the goal is perceived as highly integrated. Indeed, if students perceive their educational goal as linked to other goals, including more concrete ones, the lack of information concerning the actions needing to be taken (due to the focus on a be-goal) is compensated for by an awareness of the concrete paths to progress toward this more abstract dream. Seeing how one's educational goal is related to concrete goals helps to identify what this goal means in practice, and therefore how it can be pursued and attained. In other words, if the be-goal is integrated, its potential negative impact due to its distal character (Locke & Latham, 2002) can be balanced by its integration into the hierarchical goal structure, and therefore, only its positive influence on goal commitment (Carver & Scheier,

1998) remains. This interest in combining a high level of abstraction with a high degree of integration is in line with Bandura's (1986) assumption that personal development is best served by combining distal aspirations (i.e., be-goals) with proximal self-guidance (i.e., integration with other goals, including more concrete ones).

However, when there is not much integration, we hypothesize that goal abstraction will negatively influence goal commitment (as assumed by Locke and Latham (2002), Schunk (1990), and Zimmerman (1989)). If a goal is perceived as rather isolated, the focus on a be-goal and its implied lack of information concerning the actions to be taken are not (sufficiently) balanced by links to more concrete goals. Indeed, perceiving one's educational goal as under-integrated makes the identification of the concrete paths towards it more difficult. We suggest that, when there is not much integration, students focusing on a do-goal will be more committed. Indeed, do-goals became interesting when they compensate for a lack of integration within the

hierarchical goal structure. When students have difficulties perceiving the links between their educational goal and other goals, including more concrete ones, the focus on a concrete do-goal helps them to have a better idea of what they should do.

The Proposed Theoretical Model

Figure 1 illustrates our hypothetical model concerning the antecedents of educational goal commitment. This model is mainly based on Carver and Scheier's (1998) assumptions. We suggest two positive main effects of the abstraction level and the degree of integration on goal importance, and therefore, on goal commitment.

However, we cannot deny the assumption that distal goals result in lower motivation than proximal ones (Locke & Latham, 2002; Schunk, 1990; Zimmerman, 1989). Our theoretical model integrates this assumption by suggesting an interaction effect (in addition to the main effects). We propose that it is more specifically in situations of low integration that the abstraction level negatively
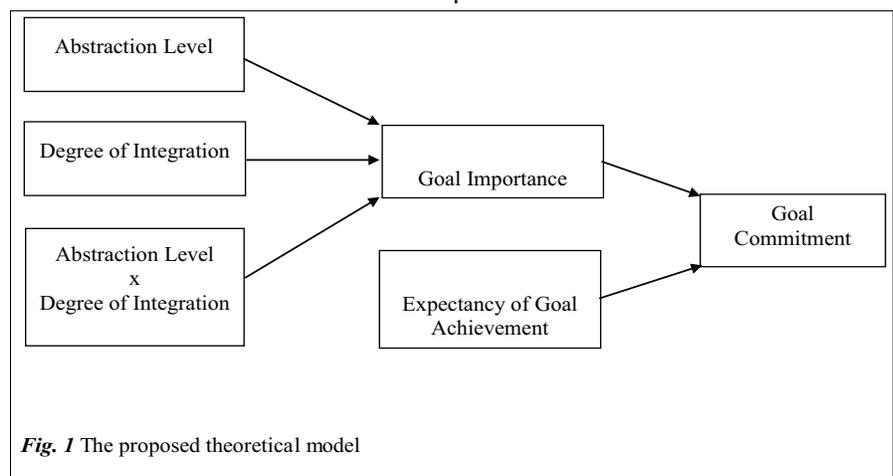
Fig. 1 The proposed theoretical model

influences goal commitment through goal importance. However, this negative impact is assumed to be weaker than the positive impact observed when the goal is perceived as integrated. Indeed, based on Carver and Scheier's (1998) definition of goal abstraction, we are interested in the distinction between be-goals and do-goals. Even if be-goals tend to be more distal than do-goals, this is not necessarily true for all be-goals. Therefore, the negative impact of goal abstraction when integration is low, which is due to this distal tendency of be-goals, should be less marked than the positive impact of goal abstraction when integration is high, which is due to the identity character that defines be-goals (i.e., being a particular kind of person).

In addition to goal importance, a second factor is assumed to positively and directly influence goal commitment: the expectancy of goal achievement (Eccles & Wigfield, 2002). Although Carver and Scheier's (1998) assumptions only concern goal importance, this second proximal antecedent could also play a role in the mediation of the impact of the distal antecedents on goal commitment. For example, awareness of the subgoals through which a goal can be achieved (which is partially implied by the construct of integration) could enhance a student's perceived ability to pursue the goal, and therefore, his/her commitment to this goal. This potential link is not included in our model, given its lack of theoretical support, but should be empirically explored.

Conclusion and Implications

The importance of students' commitment to their educational goal has been highlighted by several researchers, through the demonstration of its consequences on achievement-related behaviors. However, very few studies have looked at the factors that influence this commitment. Germeijs and Verschueren (2006) assumed that the commitment to a chosen educational goal is enhanced by the quality of the choice process. Our theoretical model suggests another process of influence on educational goal commitment. This process is based on Wrosch et al.'s (2007) assumption that the commitment to a goal is influenced by some characteristics of the goal itself, as perceived by the individual. More specifically, based on two main theoretical frameworks (i.e., the expectancy-value paradigm and the hierarchical goal structure), we postulate two goal characteristics as proximal antecedents—goal importance and expectancy of goal achievement— and two other characteristics as distal antecedents—goal abstraction and goal integration.

By suggesting this new theoretical understanding of the process through which commitment increases, the present paper opens a new direction for empirical research. Our theoretical model needs to be empirically investigated, Carver and Scheier's (1998) assumptions

having rarely been put to the test. Initial empirical evidence has been produced by Boudrenghien et al. (2011). However, this study did not allow causal relationships to be tested. An experimental investigation of our theoretical model is suggested by Boudrenghien, Frenay, Bourgeois, Karabenick, and Eccles (submitted). This study complements Boudrenghien et al.'s (2011) by testing the causality of the relationships implied by our model, as well as by investigating the specific interaction effect we postulated. However, it does not take into account students' expectancy of goal achievement. Additional empirical research is needed to complement these first studies and replicate their results, using various methodological designs.

Our theoretical model may help counselors in their guidance of students during the transition from high school to college. Traditionally, counseling interventions have focused on the career decision-making process. The present paper proposes another, complementary, type of intervention, focused on students' representation of their educational goal at a given place within their hierarchical goal structure. For students who want to develop their commitment, such an intervention could be aimed at working on the abstraction and integration dimensions of their goal representation.

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Note 1. Although goal commitment has been shown to positively predict behaviors favorable to goal achievement (e.g., Germeijs & Verschueren, 2007; Pomerantz, Saxon, & Oishi, 2000), discrepancy is also likely to appear between intentions and actions. One of the reasons for this gap between an expressed willingness to perform a behavior and its actual performance is that people base their intentions on beliefs about the behavior that are more favorable in the hypothetical situation than in the real situation (Ajzen, Brown, & Carvajal, 2004).