



the Autonomous Management School of
Ghent University and Katholieke Universiteit Leuven

Vlerick Leuven Gent Working Paper Series 2009/05

**PROACTIVE CAREER BEHAVIORS AND CAREER SUCCESS DURING
THE EARLY CAREER**

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ABSTRACT

The current article tests a model of proactive career behaviors and career success with two samples of graduates making the transition from school to work. Using structural equation modeling, we tested a theoretical model that specified the relationships among career goal, career planning, career self-management behaviors, and career success. A longitudinal panel study was conducted within two samples using a one-year (sample 1) and three-year (sample 2) time lag between the first and second data collection. The results support the process model and suggest that at graduation career planning is affected by the importance attached to career progress. In turn, career planning is positively associated with career self-management behaviors. Both career planning and career self-management behaviors at graduation are positively related to career planning and career self-management behaviors one year later (sample 1) but in sample two, in which a three-year time lag was used, these relationships were no longer significant. Support is found for the relationship between career self-management behaviors during early career and career satisfaction and salary. The findings are discussed in terms of their general implications for understanding the proactive career behavior process through which graduates affect their career success during the first years of their professional career.

Keywords: proactive career behavior, career planning, career self-management, career success

PROACTIVE CAREER BEHAVIORS AND CAREER SUCCESS DURING THE EARLY CAREER

The changing career landscape has brought a shift in responsibility for career development from the organization to the individual (Arthur, Khapova, & Wilderom, 2005). In this context, many scholars within the career field underscore the importance of proactive career behaviors, such as individual career management or career self-management, for career success (e.g. Eby, Butts, & Lockwood, 2003; King, 2004). Proactive career behaviors refer to the proactive orientation individuals show towards their career (Seibert, Kraimer, & Crant, 2001). Although the results of several studies indicate a positive relationship between proactive behaviors and outcomes such as organizational career management support (Sturges, Guest, Conway, & Mackenzie Davey, 2002; Sturges, Conway, Guest, & Liefoghe, 2005) and career progression (Seibert *et al.*, 2001), less progress has been made in investigating the nature and process of proactive career behaviors. Proactive behavior is most likely to occur in situations characterized by responsibility, ambiguity and autonomy (Grant & Ashford (2008), characteristics that are central to the so-called new career landscape addressed by many scholars within the career field (e.g. Arthur *et al.*, 2005; Sturges *et al.*, 2005). The model of the new career departs from the assumption that employees can no longer count on their organization as the primary responsible for managing their career. If they want to realize their career goals within a global and continuously changing world of work, they have to take the management of their career in their own hands (Briscoe & Hall, 2006). This situation of responsibility, ambiguity and autonomy is even more outspoken for those individuals who are at the beginning stage of their professional career, going through the process of graduation from school and entry into the world of work (MacKenzie Davey & Arnold, 2000; Sturges, Guest, & Mackenzie Davey, 2000). Earlier work has addressed the impact of proactivity on successful job search (Brown *et al.*, 2006). However, to our knowledge it has not yet been studied how proactive career behaviors of young graduates facilitate their career success during the early career, taking into account both proactive career behaviors enacted before graduation and during early employment. This paper aims at filling this gap and further explores the dynamics of proactive career behaviors during the early career. We report the results of a longitudinal study among two samples of graduates making the transition from school to work.

We develop and test a model that specifies proactive career behavior at graduation, its continuation after organizational entry and its implications for career success. More specifically, we investigate the interrelatedness of career goals at graduation, career planning, career self-management behaviors at graduation and during early career. This process of proactivity is then related to the outcome of career satisfaction and salary. This study adds to the career literature by utilizing a longitudinal panel design which allows the analysis of proactive career behavior of young graduates over time in relationship with career success.

The study of proactive career behaviors also has practical relevance. The increasing importance of proactive career behaviors implies that employees can exert more control over what happens to them in their career and that the initiatives they take in that regard become a precondition for career success. The downside of this evolution, however, is the risk of a gap between those employees who are more and those who are less inclined to take control over their career. Even in an era in which the so-called “war for talent” has made the demand for graduates surpass the supply, a proactive stance towards one’s future career rather than passively accepting an available job offer may be important for career success. It is therefore important to understand the role of proactive career behaviors looking at the initial stages of the career. If proactive career behaviors during the period of transition from school to work affect young employees’ career success, this is important input for both practitioners in the field of career counseling and those involved with the socialization of young graduates in the organization.

A PROCESS VIEW ON PROACTIVE CAREER BEHAVIOR

Proactive behavior refers to the anticipatory action that individuals take to impact themselves and/or their environments (Parker et al., 2006). Proactivity is conceived as a process that can be applied to any set of actions through anticipating, planning, and striving to have an impact (Grant & Ashford, 2008). The key criterion for identifying proactive behavior is hence whether the individual anticipates, plans for, and attempts to create a future outcome that has an impact on the self or environment (Grant & Ashford, 2008; Parker et al., 2006). The notion of proactive behavior in the workplace challenges the conceptualization of employees as relatively passive and reactive (Grant & Ashford, 2008) and explicitly recognizes the deliberate

actions employees take to influence their environments (e.g. Bateman & Crant, 1993; Frese et al., 1996; Seibert et al., 1999). In this respect, proactive behavior can be distinguished from more general motivated behavior and more reactive, passive behavior in that it encompasses acting in advance and is directed towards an intended impact (Grant & Ashford, 2008).

Inherent to the notion of the new career is that the individual is the primary responsible for managing his or her career (Briscoe & Hall, 2006; Hall, 2002). In the career literature this has brought a shift in focus on organizational career support to individuals' proactive career behaviors. Proactive career behaviors include the deliberate actions undertaken by individuals in order to realize their career goals (King, 2004; Kossek, Roberts, Fisher & Demarr, 1998; Noe, 1996; Orpen, 1994; Sturges et al., 2000; 2002). They form an application of proactive career behavior to a specific context, i.e. career management.

A review of the literature reveals a wide range of cognitions and behaviors being studied as indicators of proactive career behavior (King, 2004; Sturges et al., 2000; 2002; Kuijpers et al., 2006). From these studies two components of proactive career behaviors can be discerned, i.e. a cognitive and a behavioral component (De Vos & Soens, in press). While the former refers to the insights individuals develop into their own career aspirations, the latter refers to the behaviors they initiate with the aim of managing their career. Several studies address the importance of cognitions as an antecedent of career success (e.g. Defillippi & Arthur, 1994; Eby et al., 2003; Kuijpers et al., 2006). The results suggest that it is important for individuals to develop career insight that allows them to make meaningful choices. The behavioral component refers to the concrete actions undertaken by employees to realize their career goals (King, 2004; Noe, 1996; Sturges et al., 2000; 2002). Several authors have studied the relationship between career self-management behaviors enacted by individuals and career-related outcomes. These studies reveal the importance of a wide range of behaviors, such as collecting information about existing or possible career opportunities, searching for feedback about one's performance and competencies, and creating career opportunities through networking and actions aimed at enhancing one's visibility (e.g. Claes & Ruiz-Quintanilla, 1998; King, 2004; Orpen, 1994; Seibert et al., 2001; Sturges et al., 2000; 2002).

Whilst these studies underscore the importance and practical relevance of career-related proactivity, in this paper we focus on the process of proactive career behavior building on models developed in the proactivity literature.

MODEL DEVELOPMENT AND HYPOTHESES

The model shown in Figure 1 presents the proactive career behavior process through which graduates affect their career success during the transition period from school to work. Whereas the majority of research on career self-management focuses on explaining variance in outcome variables, thereby using different operationalizations of career success, we take a process view that highlights that proactive behavior is a sequence of interrelated acts and phases (Grant & Ashford, 2008).

Insert Figure 1 About Here

Career success

Following earlier research (Seibert et al., 1999; Seibert et al., 2001) career success is defined in terms of objective and subjective indicators. Career success refers to “the accomplishment of desirable work-related outcomes at any point in a person’s work experiences over time” (Arthur et al., 2005: 179). Traditionally career researchers have focused on objective indicators of career success like organizational position, salary or attained promotions (Arthur et al., 2005; Bozionelos, 2004). In the context of boundaryless careers, with a growing emphasis on inter-firm mobility and unpredictability, researchers increasingly speak of the personal meaning of career success as the primary focus for evaluating careers, i.e. subjective career success (Hall, 2002). Subjective career success refers to feelings of satisfaction and accomplishment regarding one’s career (Seibert et al., 1999). Because objective and subjective outcomes are both important facets of career success (Ng et al., 2005), in our address we both types of outcomes by including salary level and career satisfaction.

The proactive career behavior process during the early career

The model depicts the proactive career behavior process as a sequence of interrelated acts (career planning, career self-management initiatives) and phases that occur over time (at graduation and during early career), that are affected by individual career goals and that will be associated with objective and subjective career success. The constructs in the model have been chosen based on the process models of proactive behavior proposed by Crant (2000) and Grant & Ashford (2008).

A key criterion for proactive behavior is whether the employee anticipates, plans for, and attempts to create a future outcome that has an impact on the self or the environment (Grant & Ashford, 2008; Parker et al., 2006). We therefore include career goals at graduation as a first step in the model, which in turn should lead individuals to engage in the proactive career behaviors of planning and self-management. We expect that the level of individuals' career planning and career self-management initiatives at graduation will be related to the level of career planning and career self-management during the early career. In turn, we expect that these proactive behaviors will have effects on career success during the early career.

The first step in the proactive behavior process is anticipation. Anticipation enables people to form a mental representation of the desired impact of behavior on the self or environment and, as such, functions as a navigation and comprehension tool for future goals (Grant & Ashford, 2008). Publications focusing on proactivity constructs such as personal initiative (Fay & Frese, 2001; Frese et al., 1997; Frese et al., 1996), proactive personality (Bateman & Crant, 1993; Seibert et al., 2001; Seibert et al., 1999), flexible role orientation and role breadth self-efficacy (Ohly & Fritz, 2007), and taking charge (Morrison & Phelps, 1998; Morrison & Phelps, 1999) all consider goals to improve the work environment as a starting point. Applying this to the domain of careers, it means that the individual goal to develop a professional career is the starting point for engaging in proactive career behaviors. Career goals can be seen as an important determinant of proactive career behaviors because they act as a point of reference when evaluating career decisions (Stickland, 1996). This idea is supported by studies in which need for achievement has been found to be a predictor of proactive behavior (Fay & Frese, 2001; Frese et al., 1997). Goals are future-oriented and engage individuals in planning actions that should allow them to attain these goals (Crant, 2000; Parker et al., 2006).

Applied to careers, it means that career goals related to making career progress should engage individuals in proactively preparing for the attainment of these goals by reflecting on how to realize these, i.e. career planning. Career planning is considered a deliberate process in which goals are translated into guidelines for implementation (Grant & Ashford, 2008). This cognitive component of career-related proactivity represents a critical phase of the proactive behavior process because it enables individuals to connect what they anticipate psychologically with concrete behavioral steps and plans (Grant & Ashford, 2008). This could involve thinking about the type of job or work environment that would allow individuals to attain their goals. This implies that career goals will be related to career planning in the sense that they have a motivating influence and contribute to the development of a career strategy (Crant, 2000; Greenhaus & Callanan, 1998).

Hypothesis 1: There will be a positive relationship between the goal of making career progress and career planning at graduation.

Whereas planning signifies the psychological representation of a possible behavior, career self-management initiatives like networking or development initiatives signify the physical manifestation of career goals into concrete behaviors. Proactive career behavior requires a deliberate decision process in which career strategies are developed and judged on their likely outcomes and one's personal capability to implement these strategies is assessed (Parker et al., 2006). This link between planning and proactive behavior has been established for both the construct of personal initiative (Frese et al., 1997) and the concept of taking charge (Morrison & Phelps, 1999). Hence we expect that career planning has an impact on career self-management behaviors because career planning serves as a cognitive mechanism through which career behavior is organized and enacted.

Hypothesis 2: There will be a positive relationship between career planning and career self-management initiatives at graduation.

Proactive behaviors are not isolated incidents that occur at one point in time. Although there is a growing body of research concerning proactive behavior and related constructs, the evolution of proactive behavior at the intra-individual level has not been thoroughly looked at (Bateman & Crant, 1993; Grant & Ashford, 2008). Indirectly however, there are suggestions in the direction of intraindividual stability of proactive behavior. It is noted that careers are often prompted by one's enduring attitudes and behaviors (Seibert et al., 1999) Furthermore, proactive behavior has been specified as a relatively stable behavioral tendency (Bateman & Crant, 1993) and likewise, the construct of personal initiative has tried capturing dispositions toward proactive behavior (Frese et al., 1996). We therefore expect that the extent to which graduates engage in career planning and self-management behaviors at graduation will be positively related to their level of career planning and self-management behaviors once they have started their professional career.

Hypothesis 3: The level of career planning at graduation will be positively associated with the level of career planning during early career.

Hypothesis 4: The level of career self-management initiatives at graduation will be positively associated with the level of career self-management initiatives during early career.

It is assumed that self-managing individuals more actively strive to attain their desired career goals which in turn should make them feel more successful in their career (e.g. Arthur et al., 2005; Ng et al., 2005). Employees with a high level of career self-management seek for opportunities that allow them to change their job scope or to make career progress towards desired positions or jobs within the organization (Crant, 2000). In this sense, proactive career behavior can result in a higher salary because it increases employees' options for employment, development and the extent to which they can negotiate about job changes (Claes & Ruiz-Quintanilla, 1998). Proactivity should enhance subjective career success because proactive people are more likely to take the initiative to shape and select those work environments that are more likely to provide a greater sense of self-determination in their work and careers and will bring opportunities for advancing their careers in the desired direction (Seibert et al., 1999).

Hypothesis 5: Career self-management initiatives will be positively related to salary level.

Hypothesis 6: Career self-management initiatives will be positively related to career satisfaction.

In sum, this paper thus tests a series of linked hypotheses, based on the process model for proactive behavior (Grant & Ashford, 2008), which proposes first that career goals at graduation are associated with career planning, which in turn is related to career self-management behaviors at graduation. Second, both components of proactive career behavior are linked to career planning and career self-management behaviors during the early career. Third, career planning and career self-management behaviors during early career are related to objective and subjective career success.

METHOD

The current research uses data from two samples of graduates making the transition from school to work using a two-wave longitudinal survey design.

Samples and Procedures

Both samples differed in terms of the time lag between the first and second data collection. The time lag for sample 1 was 36 months, whilst for sample 2 there were only 12 months between both data collections. The use of two different time frames allows testing the feasibility of the proposed model over different time spans.

Sample 1. Data collections took place in May 2004 (T1) and in May 2007 (T2). Participants were invited to the first survey in the final weeks before their graduation. The researchers distributed paper-and-pencil questionnaires among students at three universities in the Flemish-speaking part of Belgium. At the end of a lecture they invited the students who were present to participate in a study on graduates' career intentions by filling out the questionnaire at the end of the lecture. Participation was anonymous but at the end of the questionnaire participants could indicate if they were willing to participate in a follow up study by giving their e-mail and/or postal address.

Those students who provided their contact details were contacted by e-mail three years later (May 2007) to fill out the second, this time online, survey. Each participant received a personal code so that answers to the T1 and T2 survey questionnaires could be matched. In total, 841 students completed the survey, and 486 of them indicated that they were willing to participate in the second survey. Of those contacted at T2 (n=486), 137 sent back the completed survey, i.e. a 27,8% response rate. For the analyses 2 respondents were excluded because they had more than 10% of missing values. The final sample hence comprised 135 graduates (49,8% male and 50,2% female), with a mean age of 23,19 years. The majority of them held a master degree in applied economics or management (60%), 22,2% held a master degree in psychology or sociology, and 17,8% held a master in civil engineering.

Sample 2. The procedure for contacting sample 2 was the same as for sample 1, the only difference being the time lag between the first and second data collection. The first data collection took place in May 2006, and 613 graduates completed the survey. Of those, 271 gave their contact details so that they could be contacted again one year later (May 2007) for participating in the second data collection. At T2 we received completed surveys from 126 respondents (44,6% response rate). The sample was comprised of 37,3 male and 62,7 female respondents with an average age of 23,54 years. As in sample 1, the majority of them held a master degree in applied economics or management (48%), 33,6% held a master in psychology or sociology, 5,9% held a master in law, and 11,8% held a master in civil engineering.

Measures

Time 1 data included self-reports on the importance of career progress, career planning, and career self-management behaviors. Time 2 data included self-reports on career planning, career self-management management behaviors, career satisfaction and salary level.

Importance of career progress was assessed at T1 using four items. Respondents had to indicate how important it was for them to make career progress using a 5-point Likert scale ranging from (1) “not at all” to (5) “to a very great extent” (5). The four items are “It is important for me to develop my career to a high level in the organization”; “Making promotions is important for me”; “It is important for me to be able to permanently develop myself during my future career”; “Professional growth

opportunities are important to me in my future career”. Cronbach’s Alpha for this scale was .73 in sample 1 and .74 in sample 2.

Career planning. Items for commensurate measures of career planning at T1 and T2 were adopted from Backman, Maley & Johnston (1978). Items determined the extent to which respondents actively reflected on the type of career they want to have and were measured on a 5-point scale ranging from (1) “not at all” to (5) “to a very great extent”. A sample item is “I have been thinking a lot about the type of job that best fits me”.

Career self-management behaviors. Items for commensurate measures of career self-management behaviors at T1 and T2 were a shortened version of the individual career management scale originally developed by Sturges et al. (2002). Their original scale consists of 16 items that address four dimensions of individual career management. For the T1 survey the items were adapted to make them relevant for graduates without any prior work experience. Only eight items relating to the subdimensions of ‘practical preparation’ and ‘networking’ were retained. For each of the retained items respondents had to indicate their agreement with each of the activities described (e.g. “I make contacts with people who work in those professional fields in which I would like to work”) using a 5-point Likert scale ranging from (1) “completely disagree” to (5) “completely agree”. The same items were used at T1 and T2, but at T1 the items referred to the pre-employment situation whilst at T2 they referred to the work situation.

In order to test for discriminant validity, items relating to career planning and career self-management behaviors were analyzed using Principal Components Analysis with varimax rotation based on the T1 data from both samples. The factor analysis revealed three factors that together explained 56,18% of the variance. The first was a three-item factor containing the three career planning items. The Cronbach alpha obtained for this scale at T1 was .71 in the first sample and .67 in the second sample. At T2 it was .68 in the first and .64 in the second sample. The second was a five-item factor that contained five items related to networking behaviors, consistent with the original subscale of Sturges et al. (2002). The Cronbach alpha obtained for this scale at T1 was .81 in the first sample and .78 in the second sample. At T2 it was .72 in the first and .78 in the second sample. The third was a three-item factor referring to what Sturges et al. (2002) labeled “practical things”.

However, this scale revealed reliabilities that were below .60 and therefore we omitted these items from the further analyses.

Career satisfaction was assessed at T2 using the career satisfaction scale developed by Martins, Eddleston & Veiga (2002). Respondents indicated on a 5-point Likert scale to what extent (1) in general they felt satisfied with their career status, (2) in general they were satisfied with their current job, and (3) they felt that their career progress was satisfactory. Cronbach's Alpha was .90 in sample 1 and .74 in sample 2.

Objective career success was assessed at T2 by asking respondents to indicate their monthly salary (in 5 steps from 1 = "less than 1.000 euros" to 5 = "more than 2.500 euros").

Analytical Strategy

First, in order to check for possible response bias in both samples, a number of statistical comparisons were performed between those respondents who participated in both data collections and those who only participated at T1. Chi-square tests indicated that the two groups did not differ significantly on gender ($\chi^2=.97, p > .05$ for sample 1, and $\chi^2=2.77, p > .05$) and educational degree ($\chi^2 = 15,76, p > .05$ for sample 1, and $\chi^2=5,24, p > .05$ for sample 2). In both samples the average age of T2 respondents did not differ significantly from the average age of T2 non-respondents ($t=-.12, p > .05$ for sample 1, and $t=-.89, p > .05$ for sample 2). A series of *t*-tests revealed that for both samples T2 respondents did not significantly differ ($p > .05$) from T2 non-respondents in terms of career progress goal, career planning at T1 and T2, career self-management behaviors at T1 and T2, and career success outcomes. This pattern of results indicates that both samples did not suffer from attrition bias between T1 and T2.

The same strategy was followed for analyzing the results of sample 1 and sample 2. Structural Equation Modelling (SEM) was used to test the hypotheses using AMOS 7.0. To minimize the parameters to observations ratio in estimating the model, scale values for each of the multiple-item measures were calculated. The path from the latent variable to the indicator was set equal to one in order to scale the latent variables.

To adjust for measurement error in the scale values, the error variance was set equal to the variance of the scale value multiplied by 1.0 minus the reliability (Seibert et al., 2001). For salary level, a single-item measure, the error variance was set equal to zero.

The following indices were used to evaluate the fit of the tested models: (a) chi-square goodness of fit to degrees of freedom ratio, (b) the comparative fit index (CFI), (c) root-mean-square error of approximation (RMSEA, Steiger, 1990), and (d) standardized root-mean-square residual (SRMR; Bentler, 1990). Previous work suggests that satisfactory model fit is indicated by CFI values of .90 or higher and RMSEA values no higher than .08, SRMR values no higher than .10 and a chi-square goodness of fit to degrees of freedom ratio no greater than 2 (Bentler, 1990; Browne & Cudeck, 1993).

RESULTS

Table 1 and Table 2 present descriptive statistics, alpha reliabilities and correlations for all variables assessed in both samples.

Insert Table 1 & 2 About Here

The results for the structural model support our hypothesized model. Overall, the fit indices suggest a good fit of the hypothesized model to the data for sample 1 (χ^2 (14, $N = 135$) = 17,67, $p = .22$, CFI = .91, RMSEA = .04, SRMR = .03) and sample 2 (χ^2 (15, $N = 121$) = 19,34, $p = .20$, CFI = .96, RMSEA = .05, SRMR = .05). We compared our hypothesized model with a model in which all T1 variables were also set to load directly on the outcome variables, in which planning at T2 also loaded directly on the outcomes and with a direct pathway from the career progress goal to career self-management behaviors at T1. For sample 1, comparison of the χ^2 statistics for both models shows that the inclusion of these direct pathways does not cause a significantly poorer fit than the hypothesized model (χ^2 (5, $N = 135$) = 5.79, $p = .33$, CFI = .98, RMSEA = .03, SRMR = .02, χ^2 diff (9) = 11.88, $p = .22$). Inspection of the regression weights of the pathways that were added reveals that only the direct pathway from T2 career planning to T2 career satisfaction was significant.

We therefore tested a third model in which only this direct pathway was added to the hypothesized model and this model, which is retained as the final model for sample 1, shows a good fit to the data ($\chi^2 (13, N = 135) = 12.85, p = .46, CFI = .91, RMSEA = .00, SRMR = .03$). For sample 2, the alternative model did not provide a significantly poorer fit to the data ($\chi^2 (5, N = 121) = 13.22, p = .04, CFI = .94, RMSEA = .10, SRMR = .04, \chi^2 \text{ diff } (9) = 6.13 p = .73$). However, the regression weights of the pathways that were added were not significant. For this reason, and because the hypothesized full mediation model represents the data more parsimoniously, the hypothesized model was retained as the final model. Figure 2 shows the significant pathways for the final model based on sample 1, while the pathways for sample 2 are represented in Figure 3.

Insert Figure 2 & 3 About Here

Hypothesis 1 predicted that the importance of making career progress would be positively related to career planning. The parameter estimate from importance of career progress to career planning was significant both in sample 1 ($\beta = .23, p < .01$) and sample 2 ($\beta = .47, p < .01$), hence supporting Hypothesis 1. Planning at T1 was positively related to career self-management behaviors T1 ($\beta = .39, p < .01$ for sample 1 and $\beta = .44, p < .01$ for sample 2). Also at T2 the parameter estimate from planning to self-management was significant in both samples ($\beta = .38, p < .01$ for sample 1 and $\beta = .25, p < .01$ for sample 2). This provides support for Hypothesis 2. Hypothesis 3 predicted that career planning at graduation would be related to career planning during the early career. This hypothesis is supported by the results based on sample 2 where there was a one-year time lag between both surveys ($\beta = .37, p < .01$) but not for sample 1, where there was a three-year time lag ($\beta = .02, p > .05$). The same pattern of results was found for career self-management behaviors ($\beta = .04, p > .05$ in sample 1 and $\beta = .16, p < .01$ in sample 2), indicating that Hypothesis 3 and 4 only receive support when the time lag between both measurements is limited. Hypothesis 5 predicted a positive relationship between career self-management behaviors and salary level.

This hypothesis received only mixed support as the parameter estimate was only significant in sample 2 ($\beta = .25, p < .01$) but not in sample 1 ($\beta = .12, p > .05$). Hypothesis 6 predicted a positive relationship between career self-management behaviors and career satisfaction.

This is supported by the significant parameter estimates found in both samples ($\beta = .19, p < .01$ for sample 1 and $\beta = .28, p < .01$ for sample 2). As mentioned earlier, in sample 1 there was also a significant but negative parameter estimate for the relationship between T2 career planning and career satisfaction ($\beta = -.19, p < .05$), suggesting a negative relationship between career planning and satisfaction.

The results based on sample 2 provide evidence for indirect relationships between proactive career behavior at T1 and career outcomes. The total indirect effects from career planning at T1 to salary level (.02) and career satisfaction (.06) were positive and statistically significant at the $p < .01$ level. The same holds for the indirect effects from career self-management behaviors at T1 on salary (.02) and career satisfaction (.03). In sample 1 as well as sample 2, career planning at T2 had a significant indirect relationship with career satisfaction (.05 for sample 1 and .04 for sample 2).

DISCUSSION

The aim of this research was to develop and test a model for proactive career behaviors of graduates during their early career. Specifically, we investigated the relationships between career progress goal, career planning, self-management behaviors and career outcomes over time. Our results show that individuals' goals to make career progress affect their proactive behaviors both directly and indirectly and that proactive career behaviors are related to career success in the early career. Our model received most support when looking at the data obtained from a sample of 121 young graduates surveyed before and one year after graduation. These data support our core hypothesis that proactive career behaviors are related over time and that they are affected by individual-level factors such as the importance attached to career progress.

This study contributes to the literature on careers and proactivity in several ways. First, this study applies a process view on proactivity to the domain of careers and offers insight in the dynamics of proactive career behavior. As noted by Grant & Ashford (2008) there is a need for empirical work that addresses the underlying processes that explain the general dynamics of specific types of proactive behaviors and their relationship with outcomes. More specifically, this research provides a conceptually sound basis for integrating and explaining findings from earlier studies on the nature and outcomes of proactive career behaviors conducted within the literature (e.g. Sturges et al., 2000; 2002). Our longitudinal data from sample 1 validate the sequence of interrelated acts and phases occurring over time that mark proactivity (i.e. anticipation, planning and action directed toward future impact) (Grant & Ashford, 2008).

Second, our study supports the idea that proactive career behavior consists of both a cognitive and a behavioral component (De Vos & Soens, in press). This difference is not only supported by the factor analysis conducted on the proactive career behavior items in both samples but also by the structural model tests which indicate that career planning and self-management behaviors can have distinct effects on outcomes and that individual-level factors like the importance of career progress affect the behavior component only indirectly through the impact on career planning. The negative association between career planning at T2 and career satisfaction for those respondents who had graduated for about three years at the time of the second survey suggests that the cognitive component of proactive career behaviors is not automatically associated with positive outcomes and that the relationship between both is more complex. Because this association is found based on cross-sectional data, further study is needed to clarify the direction of this relationship since it is also plausible that it is the lower career satisfaction that makes individuals reflect on their career more intensely. In order to compare this difference with graduates only working since 1 year at the intra-individual level, longitudinal research with more data collection waves is needed.

Third, this research provides insight into the dynamics of proactive behaviors over time. Our findings show that the relationship of career planning and career self-management behaviors over time was only significant when the time lag between both data collections was limited to 1 year.

This suggests that, while proactive career behaviors early in the career might be mostly affected by individual-level factors such as individuals' propensity to behave in a proactive way, over time other factors like organizational career management might play a role. This is in line with the findings from Sturges et al. (2002) that organizational career management affected the level of graduates' individual career management. It suggests that as individuals' careers unfold, their career success will be the result of an interaction between their own proactive behaviors and the career support offered by their organization. The practical implication of this observation is that the support offered by organizations to graduates in the first years of their career can be important, not only by directly affecting outcomes like commitment or retention but also in facilitating self-management behaviors that bring individuals in the driver seat of their careers. Further longitudinal research with more data-collection waves is needed in order to identify when the process of proactive career behaviors becomes more affected by external factors.

Fourth, as to date there is little research addressing the process of proactive career behaviors during the early career, across the transition from school to work. Whilst previous research has shown a positive association between proactive personality and job search success (Brown et al., 2006) our longitudinal study provides evidence that the proactive career behaviors of graduates in the first year of their career are also important for their later career success. We found that for recent graduates (only one year of work experience), not only their proactive behaviors after entry but also the proactive behaviors they had engaged in during the time of their graduation, when searching for a job, affect not only their subjective feelings of career satisfaction but also the more objective indicator of career success, i.e. salary.

Finally, our finding that proactive behaviors affect both objective and subjective indicators of career success supports earlier work (e.g. Bozionelos, 2004; Seibert et al. 2001). The fact that both indicators were not significantly correlated in sample 1 and that they were differently affected by proactive behaviors in sample 1 also underscores the importance of looking at both objective and subjective career success if one wants to make valid statements about the antecedents of career success (Ng et al., 2005).

Limitations and suggestions for future research

There are some drawbacks to this study that should be noted. First, our findings are only based on self-report data and hence they may be subject to common method variance. To validate our findings, future research could include more objective assessments of objective career outcomes or use reports from supervisors to assess proactive career behaviors after organizational entry. Second, the study included no context variables such as career support offered by the organization. It would be interesting in future research to add data on organizational career management in order to shed further light on how the proactive behavior process is affected by organizational interventions. In the same vein, information on career counseling offered to graduates might be relevant. Third, more data collection waves are needed to model change in proactive behaviors over time using more appropriate analytical techniques like latent growth modeling (Chan & Schmitt, 2000). Finally, in order to validate our findings it might be interesting to conduct the same type of research in contexts where the labor market is less favorable. At the time of our study, the labor market for graduates in Belgium was very favorable, certainly in 2006 and 2007. This might have impacted our findings.

To conclude, our findings show that proactive career behaviors during the early career are important for graduates' career success. They support the idea that individual responsibility for career success is important but at the same time this implies that graduates need to be prepared for taking this responsibility. Both counseling during their studies as organizational career support might be important in realizing this.

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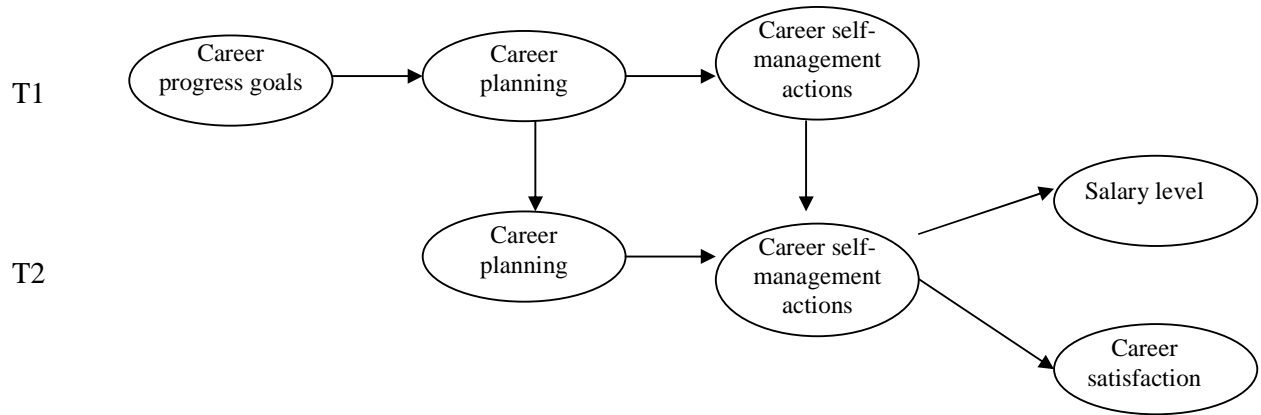
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FIGURE 1

Hypothesized model of the proactive career behavior process during the early career

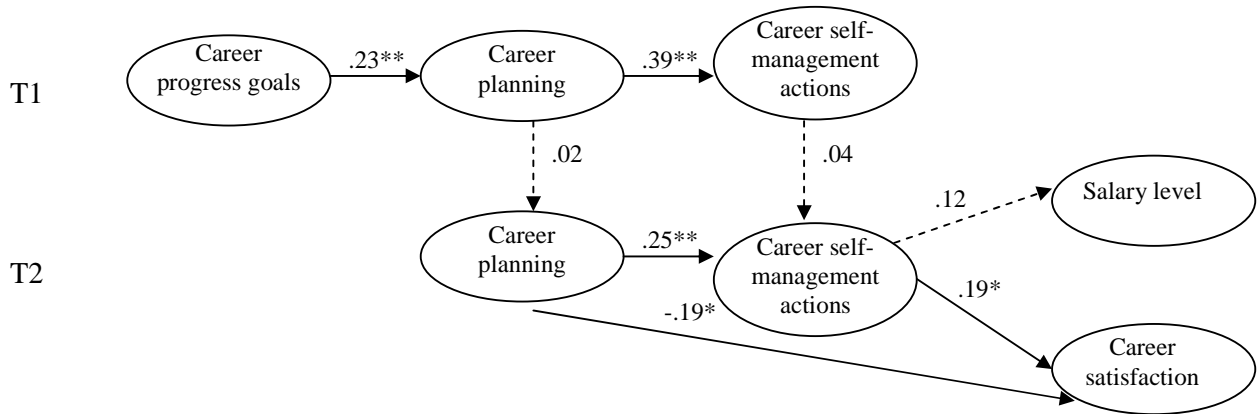


T1 = At graduation

T2 = After organizational entry

FIGURE 2

Final model of the proactive career behavior process during the early career for sample 1 (3 year time lag between T1 and T2)



Notes: T1 = At graduation, T2 = After organizational entry

Parameter estimates from the completely standardized solution are reported.

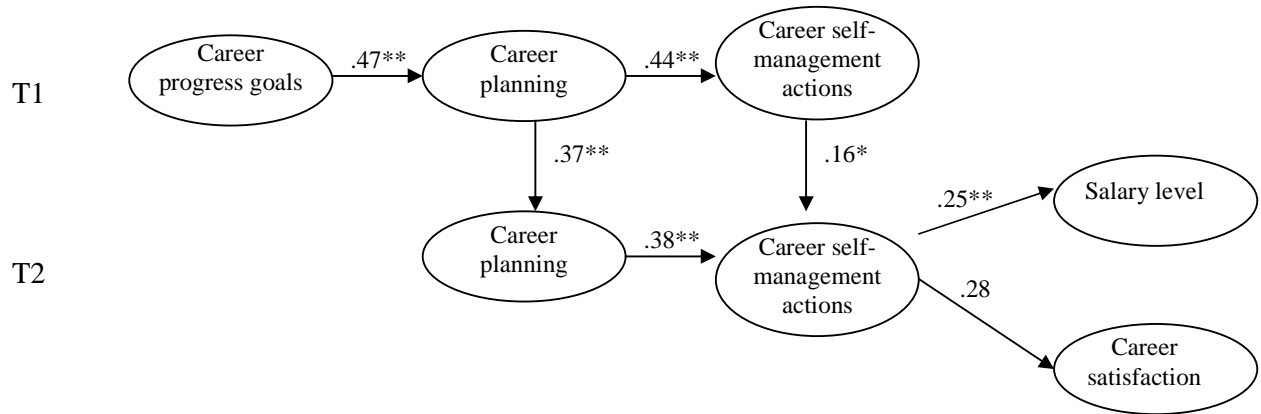
Dotted lines are hypothesized paths that were not significant

Model Fit: $\chi^2 (13, N = 135) = 12.85, p = .46, CFI = .91, RMSEA = .00, SRMR = .04.$

* $p < .05$ ** $p < .01$

FIGURE 3

Final model of the proactive career behavior process during the early career for sample 2 (1 year time lag between T1 and T2)



Note: T1 = At graduation, T2 = After organizational entry

Parameter estimates from the completely standardized solution are reported.

Dotted lines are hypothesized paths that were not significant

Model Fit: (χ^2 (15, N = 121) = 19,34, p = .20, CFI = .96, RMSEA = .05, SRMR = .05.

* p < .05 ** p < .01

TABLE 1

Means, standard Deviations and Intercorrelations – Sample 1

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. T1 Career progress goal	4.32	.45						
2. T1 Career planning	3.56	.77	.23*					
3. T1 Career self-management	3.34	.79	.19*	.39**				
4. T2 Career planning	3.98	.76	-.08	.02	-.11			
5. T2 Career self-management	3.41	.64	-.10	-.01	.02	.25**		
6. T2 Career satisfaction	4.08	.64	-.12	-.05	.12	-.13	.19*	
7. T2 Salary level	2.64	.64	.02	.07	.06	.01	.12	.14

n = 135

* $p < .05$ ** $p < .01$ **TABLE 2**

Means, standard Deviations and Intercorrelations – Sample 2

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. T1 Career progress goal	4.40	.48						
2. T1 Career planning	3.55	.73	.47**					
3. T1 Career self-management	3.41	.80	.27**	.48**				
4. T2 Career planning	3.69	.81	.11	.34**	.31**			
5. T2 Career self-management	3.29	.84	.10	.25**	.30**	.49**		
6. T2 Career satisfaction	3.85	.93	.10	.10	.15	.26**	.27**	
7. T2 Salary level	2.31	.66	.11	.16	.14	.16	.24**	.23**

n = 121

* $p < .05$ ** $p < .01$