

Proactive personality and early employment outcomes: The mediating role of career planning and the moderator role of core self-evaluations

Victor Valls^{a,b}, Vicente González-Romá^a, Ana Hernández^a, Esperanza Rocabert^a

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^a University of Valencia, IDOCAL, Av. Blasco Ibáñez, 21, 46010 Valencia, Spain

^b Valencian International University (VIU), Pintor Sorolla, 21, 46002, Valencia, Spain

E-mail address of the authors:

Victor Valls: Victor.Valls@uv.es

Vicente González-Romá: Vicente.glez-roma@uv.es

Ana Hernández: Ana.Hernandez@uv.es

Esperanza Rocabert: Esperanza.Rocabert@uv.es

Corresponding author:

Ana Hernández

Research Institute on Personnel Psychology, Organizational Development, and Quality of Working Life (IDOCAL)

Faculty of Psychology

University of Valencia

Av. Blasco Ibañez, 21. 46010-Valencia (Spain)

E-mail: Ana.Hernandez@uv.es

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Abstract

This study examines the relationship between university graduates' proactive personality and two early employment outcomes (i.e., employment status and perceived overqualification). Specifically, we propose two moderated mediation models, one for each employment outcome, with career planning as a mediator and core self-evaluations as a moderator in the proactive personality-employment outcomes link. The study sample consisted of 315 graduates, and a time-lagged design with two data-collection points was implemented. When the outcome was employment status, contrary to our expectations, the indirect effect of proactive personality via career planning was not moderated by core self-evaluations. However, when the outcome was perceived overqualification, the results showed that core self-evaluations moderated the negative indirect effect of proactive personality on perceived overqualification via career planning. Specifically, the relationship was stronger when core self-evaluations were low than when they were high, reinforcing concerns in the literature about the costs of high core self-evaluations. We discuss implications for theory and research on proactive career self-management.

Keywords: Proactive personality; employment status; perceived overqualification; career planning; core self-evaluations.

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Proactive personality and early employment outcomes: The mediating role of career planning and the moderator role of core self-evaluations

Several studies have devoted considerable effort and time to identifying personal characteristics that may be crucial for graduates in their transition from school to the labor market (e.g., Guan et al., 2013; Turban, Stevens, & Lee, 2009; Haro, Castejón, & Gilar, 2013). According to leading career paradigms in career research today (e.g., protean career, Hall, 1996; boundaryless career, Arthur & Rousseau, 1996), in order to be successful in their careers, graduates have to demonstrate initiative and self-directiveness. This has directed the attention of several career researchers to proactive personality (see Fuller & Marler, 2009, for a review), a stable disposition to take personal initiative in a broad range of activities and situations (Bateman & Crant, 1993). Research has found, for example, that proactive personality is related to graduates' career adaptability (Hou, Wu, & Liu, 2014) and career satisfaction (Seibert, Crant, & Kraimer, 2001). Moreover, research has also found that proactive personality is related to key psychological resources (i.e., confidence and readiness) for a successful school-to-work transition (Greenleaf, 2011), as well as different criteria for graduates' job search success, such as the number of interviews and job offers they receive when they graduate (Brown, Cober, Kane, Levy, & Shalhoop, 2006; Pan et al., 2018). However, despite these interesting findings, no studies have explored whether proactive personality also influences graduates' employment status (i.e., having a job vs being unemployed) and perceived overqualification (i.e., having more education or qualifications, skills, and/or experience than one's job requires; Maynard, Joseph, & Maynard, 2006) in the early stages of their career. This represents a serious gap in the career proactivity literature, given the importance of one's first job (Saks & Ashforth, 2002) and the psychological (e.g., stress, depression) and attitudinal (e.g., low job satisfaction, low organizational commitment) reactions associated with unemployment and

perceived overqualification (Liu & Wang, 2012; Wanberg & Kanfer, 1999). In addition, focusing on these two early career-related outcomes (employment status and perceived overqualification) is justified for two reasons. First, they are probably two of the most relevant outcomes in the literature (McKee-Ryan, Song, Wanberg, & Kinicki, 2005; Harari, Manapragada, & Viswesvaran, 2017). Employment status has an important influence on subjects' psychological and physical wellbeing (McKee-Ryan et al., 2005). Furthermore, having a job is what allows graduates to begin their personal project and professional career. Overqualification has become a global phenomenon with negative associations with attitudinal (e.g., job satisfaction) and behavioral (e.g., job search, citizenship behavior) responses (Harari et al., 2017). Second, employment status and overqualification are two socially relevant phenomena in the country (Spain) where this study was conducted, and, therefore, they deserve research attention. At the time of the data collection (2015), according to the Spanish Statistical Office, 20% of young people between 25 and 29 years old with a university education were unemployed. Moreover, 33.7% of young graduates held jobs requiring less education than their education level (Fundación Conocimiento y Desarrollo, 2017). These percentages were among the highest in the European Union (Fundación Conocimiento y Desarrollo, 2018). In addition, from a theoretical perspective, there is a need to understand why and how proactive personality has an influence on employment status and perceived overqualification, by shedding light on the mechanisms underpinning this link (Chiaburu, Baker & Pitariu, 2006; Crant, 2000).

This study aimed to address this gap by examining the relationship between proactive personality, on the one hand, and employment status and perceived overqualification, on the other, in Spanish university graduates, mediated by career planning. Career planning refers to setting career goals and thinking of strategies to achieve these goals (Gould, 1979). We focused on career planning as a potential mediator for

several reasons. First, several studies have acknowledged the importance of implementing proactive goals and plans in order to achieve desired career outcomes (Bindl, Parker, Totterdell & Hagger-Johnson, 2012). Moreover, career planning is an especially relevant career activity for graduates (De Vos, De Clippeleer, & Dewilde, 2009) that may be crucial in contemporary careers (Claes & Ruiz-Quintanilla, 1998; Presbitero, 2015). Second, career planning plays a key role in shaping career progression by providing strategic direction to the job search and other career self-management behaviors. Finally, career planning has been found to be a strong predictor of job-fit perceptions after graduation (Saks & Ashforth, 2002), although much less is known about its influence on employment status. We used Gould's career planning model (1979) to explain how career planning may help proactive graduates to not only seek and find a job, but also to find a job that they perceive to be a good fit. Thus, the first goal of this study was to ascertain whether career planning mediates the influence of proactive personality on employment status and perceived overqualification.

Some research (e.g., Liang & Gong, 2013) has acknowledged that the degree to which proactive individuals engage in proactive career behaviors, such as career planning, may be a function of their core self-evaluations (people's appraisals of themselves and their functioning in their environment; Judge, Locke, & Durham, 1997). In this regard, however, the extant literature on this disposition suggests two opposite rationales for the moderating role of core self-evaluations (e.g., Cheung, Wu & Tao, 2016; Bowling & Wang, 2012), leading us to examine two alternative moderation 'effects'. Specifically, this study compares a motivational approach that stems from Judge's "more is better" thesis of core self-evaluations (see Hiller & Hambrick, 2005, for a revision) with an overconfidence approach based on the growing theory and research that would question this hypothesis (e.g., Cheung et al., 2016; Grant & Wrzesniewski, 2010; Hiller & Hambrick, 2005; Li &

Tang, 2010). Therefore, the second objective of this study is to test two competitive hypotheses about the moderator role of core self-evaluations in the indirect ‘effect’ of proactive personality on employment status and perceived overqualification via career planning. Our research model, differentiating the outcomes of employment status and perceived overqualification, is presented in Figures 1 and 2, respectively.

By testing the hypothesized moderated mediation models, we aim to contribute to the current literature in several ways. First, we explain the process through which proactive personality influences employment status and perceived overqualification by identifying career planning as one of the mediating mechanisms in this process. Second, we add to previous studies on career proactivity (e.g., Liang & Gong, 2013; Presbitero, 2015) by taking a process view of proactive career behavior, in which career planning plays a key role in translating graduates’ envisioned professional future into more concrete career goals and behaviors (De Vos et al., 2009). Third, we show the conditions in which proactive personality becomes more or less advantageous for graduates’ career goal attainment, identifying a dispositional moderator (i.e., core self-evaluations). In this regard, this study questions the ability of core self-evaluations to enhance proactive behaviors, and it contributes to the literature by opening the door to a possible dark side of this disposition. Together, these contributions are also of great practical importance because the identification of mediators and moderators can be useful in designing interventions to support graduates in the school-to-work transition and help them to start their careers on the right foot.

Theoretical Background and Hypotheses

The mediating role of career planning in the relationship between proactive personality and early career outcomes

Proactive personality is a stable disposition related to individuals' propensity to take personal initiative in acting to change their environments in a broad range of activities and situations (Bateman & Crant, 1993). In the case of career management, this disposition would characterize individuals who endeavor to influence the environment in ways that advance their careers and goals (Ok & Vanderberghe, 2016; Seibert, Kraimer, & Crant, 2001). Thus, these individuals would tend to set and pursue their professional goals, instead of leaving their careers to chance (Bell & Staw, 1989). This tendency leads proactive individuals to become more future oriented and *anticipate* what they want to achieve or prevent in terms of their career (Greenleaf, 2011; Parker, Willimas, & Turner, 2006), which is the basis of any (career) plan (Grant & Ashford, 2008). Moreover, their inclination to initiate and perform actions to alter their situations (Greenleaf, 2011) also leads proactive individuals to take initiative in managing their careers and engage in different behaviors associated with career advancement, such as career planning (Seibert et al., 2001).

Therefore, it is reasonable to expect that graduates with a highly proactive personality will engage in career *planning* by outlining the steps needed to achieve their desired career outcomes. In other words, they are likely to move from anticipation to planning in order to prepare in advance for *actions* that can bring about their envisioned professional future (Grant & Ashford, 2008). Supporting this idea, past research has found a positive relationship between graduates' proactive personality and career planning (Presbitero, 2015; Seibert et al, 2001).

There is strong empirical support for the effects of career planning on job search and employment outcomes (e.g., Gould, 1979; Saks & Ashforth, 2002; Ng, Eby, Sorensen

& Feldman, 2005; Zikic & Klehe, 2006). Career planning involves translating the professional future and outcomes that individuals envision into specific career-related goals. One of the assumptions of Gould's career planning model (1979) is that career planning can be equated with the goal setting function, which organizes and maximizes one's efforts towards goal achievement, because goals are immediate regulators of human action and, therefore, represent a motivational mechanism (Locke, Shaw, Saari, & Latham, 1981). Therefore, when individuals engage in career planning, the career goals they propose are likely to lead them to think of strategies to achieve these goals, but also to making a greater effort (Aryee & Debrah, 1993). Thus, graduates with a highly proactive personality are more likely to find a job because career planning motivates them to engage in a more intense job search. At the same time, when they establish their career goals and develop strategies to achieve them, they are more likely to find out what steps they need to take when searching for and finding a job that fits their qualification level (Saks & Ashforth, 2002). Moreover, their career plan also provides them with guidance about what jobs and positions interest them more. Hence, graduates with a highly proactive personality are more likely to find a job that is consistent with their career goals and qualification level because career planning guides their job search and provides support for their job acceptance decisions. Consistent with this idea, empirical evidence reveals a positive relationship between career planning and job fit perceptions after the school-to-work transition (Saks & Ashforth, 2002).

Based on these arguments, we posit that the influence of proactive personality on both employment status and perceived overqualification is mediated by career planning. However, this mediational chain overlooks previous research indicating that a proactive personality, as a tendency, may or may not be manifested by individuals (Chan, 2006; Liang & Gong, 2013), and that some contingencies such as person-organization fit

(Erdogan & Bauer, 2005), procedural justice climate (Li, Liang, & Crant, 2010), or job design (Marler, 2008) may enhance (or minimize) the extent to which these individuals capitalize on their proactivity.

In the present paper, we propose that core self-evaluations also represent one of these contingencies, and we examine whether this disposition moderates the indirect influence of proactive personality on employment status and perceived overqualification through career planning.

The moderating role of core self-evaluations in the relationship between proactive personality and career planning

Core self-evaluations consist of people's appraisals of themselves and their functioning in their environment (Judge et al., 1997). This construct encompasses the common core or significant conceptual similarities of self-esteem, self-efficacy, locus of control, and emotional stability (Judge, Erez, & Bono, 1998). Researchers have acknowledged that core self-evaluations may play a key role in understanding when individuals are more likely to display proactive behaviors. Parker, Bindl, and Strauss (2010), for example, identify proactivity as a goal-driven process where the motivational states needed to set and pursue proactive goals would be influenced by personality aspects related to one's core beliefs about the self, such as core self-evaluations. Similarly, Grant and Ashford (2008) posit that the extent to which individuals display their proactivity in a set of different situations would be a function of different dispositional moderators, including core self-evaluations. Thus, we draw on these insights and propose that core self-evaluations represent a boundary condition for the influence of proactive personality on early career outcomes via career planning.

A large body of research based on the so-called "more core self-evaluations are better" thesis focuses on the potential benefits of having high core-self evaluations (see

Hiller & Hambrick, 2005, for a revision). However, a recent stream of research has also focused on the potential costs of this disposition, leading some scholars to question its potential benefits and argue against the aforementioned thesis. This controversy, thus, suggests two different approaches to examining the moderating role of core self-evaluations (e.g., Cheung et al., 2016; Liang & Gong, 2013), and it has led us to examine two alternative approaches to the moderation ‘effect’. On the one hand, a *motivational* approach predicts a positive moderation effect based on the motivational function that positive self-assessments may have in setting and pursuing career goals; and, on the other hand, an *overconfidence* approach predicts a negative moderation effect based on the underestimation of obstacles and risks on the career path, due to high core self-evaluations. Despite their differences, as described below, both approaches agree that core self-evaluations represent a boundary condition for the influence of proactive personality on employment status and perceived overqualification via career planning (Grant & Ashford, 2008; Liang & Gong, 2013; Parker et al., 2010).

The motivational approach

Research has acknowledged that proactive personality, as a (behavioral) tendency only, may not automatically translate into a real manifestation of proactive behaviors (e.g., Chan, 2006). In the transition from school to work, whereas some individuals with a proactive personality may invest great effort and time in establishing and following a career plan, other people with a proactivity personality may either not exhibit the same proactivity in managing their careers or exhibit it to a different extent. One possible explanation for these differences may lie in the extent to which proactive individuals anticipate that they will be capable of achieving their career goals, and how attractive achieving these goals is to them. Indeed, according to Hollenbeck and Klein (1987), goal commitment is a function of the expectancy and attractiveness of goal attainment. Hence, individuals who think they

can achieve a goal that is attractive to them are more motivated to plan, that is, prepare in advance by outlining the steps needed to achieve the desired outcome.

One individual disposition that has been related to these two components of goal commitment (i.e., expectancy and attractiveness of goal attainment) is core self-evaluations (Erez & Judge, 2001). On the one hand, individuals with high core self-evaluations would perceive their career goals as attainable because their positive beliefs about themselves can enhance their perceptions that they can cope with the difficulties (Liang & Gong, 2013; Parker et al., 2010). In other words, they 'are likely to believe that they have the knowledge, skills, and abilities to anticipate, plan, take charge, exert control, and exercise influence' (Grant & Ashford, 2008, p. 17). On the other hand, individuals with high core self-evaluations are more likely to think that goal attainment is attractive to them because achieving their career goals would heighten their sense of cognitive consistency (Judge et al., 1998; Korman, 1970). In other words, achieving their desired career goals would allow individuals with high core self-evaluations to preserve their self-image (Judge et al., 1998). Thus, during the anticipation phase of the proactive process, when thinking ahead to anticipate their future goals, university students with high core self-evaluations are more likely to engage in career planning than individuals with low core self-evaluations because their perceived career goals are more attractive and attainable.

Considering these and all the aforementioned arguments, we posit that, although career planning transmits the influence of proactive personality on employment status and perceived overqualification, this transmission will be conditioned by the levels of core self-evaluations. Based on the motivational approach, because individuals with high core self-evaluations perceive their career goals as more attractive and attainable than individuals with low core self-evaluations, the positive relationship between proactive personality and career planning will be stronger when self-core evaluations are high than when they are

low. Consequently, from this approach, the indirect effect of proactive personality on employment status and perceived overqualification via career planning will be stronger when self-core evaluations are high than when they are low. Thus, we formulate the following hypotheses:

Hypothesis 1a. The positive indirect “effect” of proactive personality on employment status through career planning is moderated by core self-evaluations, so that the “effect” is stronger when core self-evaluations are high than when they are low.

Hypothesis 1b. The negative indirect “effect” of proactive personality on perceived overqualification through career planning is moderated by core self-evaluations, so that the “effect” is stronger when core self-evaluations are high than when they are low.

The overconfidence approach

As stated above, the research recognizes that not all the individuals with a proactive personality will manifest their proactivity, which suggests that not all graduates with a proactive personality will engage in career planning and subsequent actions (Liang & Gong, 2013). An explanation might be found in subjects’ self-assessment. For example, when individuals do not feel confident about their ability to complete a task successfully, they may need to invest more effort and time in preparing for action than individuals who perceive that they have the necessary abilities and knowledge to succeed. However, the literature suggests that people are not always very accurate when they self-assess and make predictions about future outcomes and risks (Anderson, Brion, Moore, & Kennedy, 2012) because they tend to be quite optimistic and overestimate their capacities (Shepperd, Oullette, & Fernandez, 1996). For example, people tend to overestimate their occupational abilities and social skills (Anderson et al., 2012), believe that they are more likely than

others to succeed at getting a good first job (Shepperd et al. 1996; Weinstein, 1980), and have unrealistic expectations about their future careers (Sturges, Guest, & Mac Davey, 2000).

A personal characteristic that has been linked to biased self-assessments is core self-evaluations (e.g., Cheung et al., 2016; Grant & Wrzesniewski, 2010; Hiller & Hambrick, 2005). Indeed, although core self-evaluations have been related to several positive outcomes (Judge & Bono, 2001), some scholars have begun to express concerns that high core self-evaluations may also lead individuals to overestimate their abilities, encouraging complacency about investing enough time, energy, and effort to succeed (Grant & Wrzesniewski, 2010; Stajkovic, 2006). Moreover, high core self-evaluations have also been related to overconfidence, which would lead individuals to underestimate potential risks of their actions and decisions (Cheung et al., 2016). Therefore, from the process perspective of individual proactivity (Grant & Ashford, 2008), when university students with high core self-evaluations *anticipate* and envision positive future career outcomes (e.g., a fitted job after graduation), they are likely to engage in career planning less intensely than students with low core self-evaluations because their exaggerated beliefs about themselves and their capabilities lead them to underestimate the difficulties on their career path. Therefore, they dedicate less effort and time to planning than individuals with low core self-evaluations. This overconfidence approach is further supported by the compensatory approach from the job search literature, which predicts that people with an external locus of control may compensate for their negative expectations by more proactively engaging in job-search activities (see Van Hooft & Crossley, 2008, for a revision). Thus, following this line of reasoning, individuals with high core self-evaluations are less likely to proactively manage their careers because their overconfidence and unrealistic expectations about

themselves lead them to perceive that less effort is needed to compensate for the anticipated difficulties in their career.

Based on the overconfidence approach, an alternative moderated mediation hypothesis can be formulated. As explained above, individuals with high core self-evaluations have exaggerated beliefs about their capabilities that lead them to underestimate the difficulties of their career path and invest less effort and time in planning than individuals with low core self-evaluations. Thus, when individuals have high core self-evaluations, the relationship between proactive personality and career planning will be weaker than when core self-evaluations are low, and the indirect effect examined will also be weaker. Thus, we propose the following:

Hypothesis 2a. The positive indirect “effect” of proactive personality on employment status through career planning is moderated by core self-evaluations, so that the “effect” is weaker when core self-evaluations are high than when they are low.

Hypothesis 2b. The negative indirect “effect” of proactive personality on perceived overqualification through career planning is moderated by core self-evaluations, so that the “effect” is weaker when core self-evaluations are high than when they are low.

Method

Procedure

This study was part of a larger investigation about overqualification of university graduates entering the job market. The project was approved by the corresponding Research Ethics Committee, and anonymity and confidentiality of responses were guaranteed. All the participants were asked for their informed consent.

Initially, 10,307 bachelor and master's degree students at a public university in Spain were contacted via email approximately two months before graduation (Time 1, T1 May 2015) and invited to participate in the study. They were also informed that, if they participated at T1, they would receive another questionnaire approximately six months after graduation (Time 2, T2). All the variables in the current study were measured at T1, except employment status after graduation and perceived overqualification, which were measured at T2. We expected six months to be a reasonable time lag to allow graduates to find a job after graduation.

To encourage participation, several reminders were sent at both T1 and T2. In addition, a free training course of their choice about leadership, team building, time management, or job interviews was offered to those who answered the questionnaires at both time points. Regarding the free training course offered, 174 participants registered for the training. However, 61 of them contacted us to let us know that they would not be able to attend the selected course but that they would like to have the materials used in the course. Among those who confirmed their attendance (113), only 71 finally attended their chosen training course. For those who did not attend the training, relevant references and materials were shared. The courses were 4-hour, face to face seminars taught by experts in the four topics offered. Because all the data collection was completed before participants attended the courses or had the course materials, the training should not have had any impact on the research results.

At T1, 1,087 students responded to the questionnaire; at T2, 503 of these students responded to the questionnaire. Considering the large drop-out rate, we carried out attrition analyses based on Student's *t* tests (for continuous variables), Mann-Whitney *Z* tests (for ordinal variables), and chi-square tests (for categorical variables). Results showed that there were no significant differences between individuals who

responded at both times and those who responded only at T1, in terms of gender, age, level of studies (bachelor vs. master), social class, or field of study. We also compared respondents who answered at both times to respondents who participated only at T1 on the T1 model variables (proactive personality, career planning, and core self-evaluations). None of the t-tests performed were statistically significant¹.

Next, 188 subjects of the 503 who responded at T2 were removed from further analysis for the following reasons. First, 84 subjects were inactive (neither employed nor looking for a job). Second, 91 maintained the job they had before graduation. Thus, they did not enter the labor market as graduates to find a job. And third, 23 subjects showed incongruent responses at different places in the questionnaire (e.g., at T2 they said they had not been employed since graduation *and* that they had a job). Of the remaining 315 subjects who were kept in the database, 173 had been unemployed since graduation and were categorized as unemployed, and 142 had been employed between graduation and T2 (about 6 months after graduation) in a job obtained after graduation and were categorized as employed. Finally, of these 142 subjects who were employed at T2, 106 reported their levels of overqualification in the job they had at the time of data collection.

Sample

The sample composed of subjects categorized as employed or unemployed (N = 315) was used to test the hypotheses when the outcome variable was employment status (Hypotheses 1a and 1b). They were 25.5 years old on average (SD = 5.9), and 73% were female. Most (51.7%) considered themselves middle social class, followed by lower middle class (34%). Sixty-three percent had completed a bachelor's degree, and 37% had a Master's degree. Most of the participants (53.3%) had completed a degree in

¹ More details about these analyses can be obtained from the corresponding author upon request.

social sciences, followed by 25.4% in health sciences, 11.7% in humanities, 7.6% in natural sciences and mathematics, and 1.9% in engineering.

The sample composed of 106 subjects who were employed at T2 was used to test the hypotheses when the outcome variable was perceived overqualification (Hypotheses 2a and 2b). They were 25 years old on average ($SD = 4.7$), and 70% were female. Most (49.1%) of them considered themselves middle social class, followed by lower middle class (33%). Sixty percent had completed a bachelor's degree, and 40% had a Master's degree. Most of the participants (61.3%) had completed a degree in social sciences, followed by 20.8% in health sciences, 10.4% in humanities, 5.7% in natural sciences and mathematics, and 1.9% in engineering.

Measures

We used Likert response scales with six response options (1. *Strongly Disagree*, 6. *Strongly Agree*), except for employment status. To translate the original scales into Spanish, we followed a translation/back-translation procedure (Brislin, 1970). First, the original scale items were translated into Spanish by a group of experts in employability with qualifications in English. Then, a bilingual native English speaker translated the Spanish version into English. This last English version was compared to the original one, and only minor changes were made to improve the comparability of the English and Spanish versions. Finally, the Spanish version of the scales was responded to by a pilot sample of 10 university students in order to identify potential problems (e.g., difficulty in understanding item content, ambiguity in item interpretation, lack of relevance) when responding to the items. No problems were identified.

Proactive Personality. This variable was measured with Parker's (1998) 6-item version of Bateman and Crant's (1993) Proactive Personality Scale. A sample item is "If I see something I don't like, I fix it". Previous studies showed that Parker's (1998)

6-item scale showed adequate internal consistency and construct validity (dimensionality) across different countries, including Spain (Claes, Beheydt, & Lemmens, 2005). In addition, using a different sample (Belgian), Claes et al. (2005) reported a correlation of .92 between the 6-item scale and the 17-item scale originally proposed by Bateman and Crant (1993), and they concluded that the 6-item scale measured the same construct of “proactive personality” as the original one. Other studies have provided evidence of the validity of the 6-item version in China (Li, Liang, & Crant, 2010). Moreover, the fact that research teams have observed the pattern of correlations hypothesized in their studies when the 6-item version of proactive personality was used [for example, with job crafting (Tims, Bakker & Derks, 2012), group cohesion, compassion satisfaction, burnout, and job withdrawal behaviors (Slatten, Carson, Baker, & Carson, 2013), or proactive vitality management (Op den Kamp, Tims, Bakker & Demerouti, 2018)] indirectly supports the validity of the 6-item proactive personality scale. In the current study, Cronbach’s alpha was .85 for the total sample and .82 for the subsample of graduates who were employed at T2 in a job obtained after graduation.

Career Planning. This variable was measured with Koen, Klehe and Van Vianen’s (2013) 3-item version of Gould’s (1979) Career Planning Scale. A sample item is “I have a strategy for achieving my career goals”. Koen et al. (2013) provided evidence for the predictive validity of this 3-item scale when the criterion was job search intensity, and they reported satisfactory reliability (Cronbach’s $\alpha = .82$). In the current study, Cronbach’s alpha was .84 for the total sample and .81 for the subsample of graduates who were employed at T2 in a job obtained after graduation.

Core self-evaluations. This variable was measured with the 12-item Core Self-Evaluations Scale (CSES) developed by Judge, Erez, Bono and Thoresen (2003)

(e.g., “I am confident I will get the success I deserve in life”). Previous studies showed that the CSES has adequate internal consistency, construct validity (dimensionality and convergent validity), and predictive validity in different countries (Judge et al., 2003; Judge, Heller, & Klinger, 2008; Piccolo, Judge, Takahashi, Watanabe, & Locke, 2005; Rode, Judge & Sun, 2012). In the present study, Cronbach’s α was .84 for the total sample, and .82 for the subsample of graduates who were employed at T2 in a job obtained after graduation.

Employment status after graduation. This variable was measured by asking participants two questions: 1. “Have you been employed since graduation?”, and for those who responded yes to the first question, 2. When did you get the job? The last question had three response options: before starting your degree, while studying your degree, and after completing your degree. Those who had been employed in a job obtained after graduation were classified as “1. Employed”. Those graduates who reported that they had never been employed in a job obtained after graduation (despite having looked for a job) were classified as “0. Unemployed”.

Perceived overqualification. This variable was measured in the subsample of graduates who were employed at T2 in a job obtained after graduation, using Maynard et al.’s (2006) 9-item Scale of Perceived Overqualification (SPOQ) (e.g., “Someone with less education than myself could perform well on my job”). Using different samples, Maynard et al. (2006) showed that the scale had adequate internal consistency and test-retest reliability. They also provided evidence of content and construct validity (in terms of dimensionality and convergent and discriminant validity). Additional studies in different countries have also supported the reliability and construct validity of the scale in terms of dimensionality (e.g. Alfes, Shantz, & van Baalen, 2016; Liu, Luksyte, Zhou, Shi, & Wang, 2015). In the current study, Cronbach’s α was .94.

To obtain additional empirical evidence about the validity of the scales in the present study, we conducted two Confirmatory Factor Analyses (CFA). First, in the sample used to test our hypotheses when the outcome variable was employment status ($N = 315$), we factor analyzed the scales measuring proactive personality, self-core evaluations, and career planning. The hypothesized 3-factor model showed an acceptable fit to data ($\chi^2(186) = 589.7, p < .01$; RMSEA = .083; SRMR = .079; CFI = .82). Although the relative fit index computed (CFI) was low, the two absolute indices (RMSEA and SRMR) were acceptable. Moreover, the hypothesized 3-factor model fitted the data better than an alternative 1-factor model, which yielded a poor fit to the data ($\chi^2(189) = 1085.5, p < .01$; RMSEA = .123; SRMR = .105; CFI = .60).

Second, in the sample used to test our hypotheses when the outcome variable was overqualification ($N = 106$), we factor analyzed the scales measuring proactive personality, core self-valuations, career planning, and perceived overqualification. Considering the small sample size relative to the number of parameters to estimate (96), in each scale composed of 6 or more items (i.e., proactive personality, self-core evaluations, and overqualification), we grouped the items to obtain 3 composite indicators per scale. We did so by obtaining item parcels through the balancing approach (see Little, Rhemtulla, Gibson, & Schoemann, 2013, p. 296; Landis, Beal, & Tesluk, 2000, p. 188). Thus, the number of parameters to estimate was reduced to 42. The hypothesized 4-factor model showed an acceptable fit to data ($\chi^2(48) = 90.2, p < .01$; RMSEA = .091; SRMR = .068; CFI = .94). Although the RMSEA was higher than .08, the SRMR and the CFI were acceptable. Moreover, the hypothesized 4-factor model fitted the data better than an alternative 1-factor model, which showed an unacceptable fit to data ($\chi^2(54) = 509.8, p < .01$; RMSEA = .28; SRMR = .19; CFI = .36).

Control variables. Overqualification literature suggests that women are more likely to be overqualified than men (Feldman, 1996; Liu & Wang, 2012; McKee-Ryan & Harvey, 2011). Thus, we controlled for gender (0. Female; 1. Male). Similarly, the degree field also has an impact on the likelihood of finding a job and becoming overqualified (González-Romá, Gamboa & Peiró, 2018; Robst, 2007). Accordingly, the field of study (i.e., Humanities, Natural Sciences, Health Sciences, Social Sciences, and Engineering) was controlled for by creating 4 dummy variables (taking Engineering as the reference category). Finally, we also controlled for graduates' attained educational level (0. Bachelor; 1. Master's degree) because educational level has shown to be related to employment status (Šverko, Galić, Seršić & Galešić, 2008).

Analysis

Our hypotheses were tested by means of path analysis with observed variables, using Mplus 8 (Muthén & Muthén, 1998–2015). Specifically, two moderated mediated models were fitted. We controlled for the effects of the control variables (gender, educational level, and degree field) by introducing these variables as covariates in the tested models. The first model, where employment status was the outcome (Figure 1), was tested by fitting a probit model in the sample of 315 graduates. Probit models are suitable for binary outcomes (see Muthén & Asparouhov, 2015). The second model, where perceived overqualification was the outcome, was tested by fitting a linear model in the sample of 106 graduates who were employed at T2 in a job obtained after graduation.

When testing for moderation and conditional indirect effects, we used a two-tailed test because we had two opposite and competing hypotheses about the moderating role of core self-evaluations. Based on Preacher, Rucker and Hayes (2007), the moderated mediation hypotheses proposed in Figures 1 and 2 correspond to a type 2 Model. In this

model, the conditional indirect “effects” can be estimated as the conditional product $(a + cW)b$ for different levels of the moderator W . In this product, a refers to the coefficient estimating the relationship between proactive personality (X) and career planning (M), b refers to the coefficient estimating the relationship between career planning (M) and the specific outcome Y (employment status or perceived overqualification for the two tested models), and c refers to the coefficient estimating the moderator effect of core self-evaluations (W) on the relationship between proactive personality and career planning. In a model of this type, the index of moderated mediation equals the product of the coefficients cb (Hayes, 2015). Because the product of coefficients does not follow a normal distribution, we used the bias-corrected (BC) bootstrap confidence interval method (MacKinnon, Lockwood, & Williams, 2004; Williams & MacKinnon, 2008) to test for the significance of both the index of moderated mediation and the conditional indirect effects. Following Preacher and colleagues (2007), we bootstrapped 5,000 samples. Specifically, we tested whether the index of moderated mediation was statistically significant by obtaining 95% BC bootstrap confidence intervals. When the moderated mediation was significant (i.e., the confidence interval (CI) did not include zero), the BC bootstrap confidence intervals for the conditional indirect effects at specific values of the moderator (specifically, one standard deviation above and below the mean) were obtained. As before, when the confidence interval did not include zero, we concluded that the indirect effect of X on Y via M was statistically significant at that specific level of the moderator W .

Considering that for binary outcomes such as employment status, the conventional product of coefficients that involves b (the $M \rightarrow Y$ coefficient) “is only valid for the underlying continuous latent response variable y^* not for the observed categorical outcome y itself” (Muthén & Asparouhov, 2015; p. 14), the indirect effect for the underlying latent variable is reported. In addition, when the dependent variable is categorical, the use of standardized

regression coefficients has been recommended to estimate mediation (Winship & Mare, 1983). For consistency, the completely standardized coefficients were obtained and reported for the two tested models, both for the dichotomous outcome and the continuous one. In the first case, the weighted least squares -mean and variance- (WLSMV) adjusted estimation method was used because this method provides accurate parameter estimates for categorical data (DiStefano & Morgan, 2014). In the second case, Maximum Likelihood estimation methods were used.

Results

Means, standard deviations, and correlations among the study variables are reported in Tables 1 and 2, for the total sample and for the subsample of graduates who were employed at T2 in a job obtained after graduation, respectively. The results for the tested models are presented separately for the two outcomes considered: employment status and perceived overqualification.

-INSERT HERE TABLE 1 –

-INSERT HERE TABLE 2 –

Employment status

The proposed moderated mediated model (Figure 1) showed an excellent fit to data ($\chi^2(3) = 2.43, p > .05$; RMSEA = .00; CFI = 1; SRMR = .02). Regarding Hypotheses 1a and 2a, the results obtained showed that core self-evaluations did not moderate the indirect effect of proactive personality on employment status via career planning. The corresponding moderated mediation index (*cb*) equaled .002 and was not statistically significant (95% BC bootstrap CI = -.010; .019). Therefore, none of the alternative moderation hypotheses were supported by the data².

² For this sample, the moderating effect of CSE on the relationship between proactive personality and career planning was not statistically significant. Specifically, the interaction effect was .01 ($p > .05$).

- INSERT HERE FIGURE 1 -

We further examined whether the expected positive indirect effect proposed in the model (proactive personality → career planning → employment status) was statistically significant, in spite of not being significantly moderated by core self-evaluations. The estimated standardized indirect effect (*ab*) equaled .04 and was statistically significant (the corresponding 90% BC bootstrapped CI was (.001, 0.089)³). Therefore, the results showed that proactive personality was positively and indirectly related to employment status via career planning.

Perceived Overqualification

The moderated mediated model proposed in this case (Figure 2) also showed an excellent fit to data ($\chi^2(3) = 3.29, p > .05$; RMSEA = .03; CFI = .99; SRMR = .03). With regard to Hypotheses 2a and 2b, the results showed that core self-evaluations moderated the indirect effect of proactive personality on perceived overqualification via career planning. The corresponding moderated mediation index (*cb*) equaled .155 and was statistically significant (95% BC bootstrap CI = .013; .386).

- INSERT HERE FIGURE 2 -

To further understand these effects, the conditional indirect effects (CIE) at different values of the moderator variable were estimated and tested by means of bootstrapping (Table 3). The results showed that the negative indirect effect of proactive personality on perceived overqualification through career planning was weakened when core self-evaluations increased (see Table 3). Specifically, the completely standardized conditional indirect effect when the moderator was one *SD* below the mean equaled -.10 and was statistically significant (BC bootstrapped 95% CI = -.215; -.006). When the

³ We conducted a one-tailed, $\alpha = .05$, test because they are appropriate when directional effects are expected (Cho & Abe, 2013; Erickson & Nosanchuk, 1977; Wonnacott & Wonnacott, 1984). Moreover, mediation methodologists state that one-tailed, $\alpha = .05$, tests “are often justified in mediation research” (Preacher, Zyphur & Zhang, 2010, p. 217).

moderator equaled the mean, the CIE was $-.05$ and was also statistically significant (BC bootstrapped 95% CI = $-.116; -.002$). However, when core self-evaluations were high (one *SD* above the mean), the conditional indirect effect equaled $.01$ and was not statistically significant (BC bootstrapped 95% CI = $-.030; 0.100$). Therefore, these results provided empirical support for Hypothesis 2b⁴.

-INSERT HERE TABLE 3 -

In Figure 3, we plotted the indirect effect of proactive personality on perceived overqualification through career planning at different levels of core self-evaluations, with the corresponding 95% confidence band. According to the plot, the indirect effect was negative and significantly different from zero for low values of core self-evaluations up to the mean, and it was statistically nonsignificant for values of core self-evaluations above this value (4.25 on a scale from 1 to 6). These results were congruent with Hypothesis 2b and showed that the negative indirect effect of proactive personality on perceived overqualification through career planning was moderated by core self-evaluations, so that the indirect effect was weakened when core self-evaluations increased.

- INSERT HERE FIGURE 3 -

Discussion

In this study, we examined the relationships among proactive personality, career planning, core self-evaluations, and two early employment outcomes (i.e., employment status and perceived overqualification after graduation). We found that core self-evaluations moderated the negative indirect effect of proactive personality on perceived overqualification via career planning. Specifically, the relationship was stronger when core self-evaluations were low than when they were high, providing support for the

⁴ For this sample, the moderating effect of CSE on the relationship between proactive personality and career planning was statistically significant. The interaction effect was $-.35$ ($p < .01$).

overconfidence approach described in this study (Hypothesis 2b). Finally, contrary to our expectations, we did not find support for a moderating ‘effect’ of core self-evaluations in the relationship between proactive personality and employment status through career planning (Hypothesis 1a, 2a).

Theoretical Implications

Our findings have several implications for future research and theory. First, our findings point to career planning as a crucial intervening variable to understand the process through which future graduates proactively manage their careers, reinforcing the importance that previous studies attach to planning actions when proactivity is conceptualized as a process (e.g., Grant & Ashford, 2008; Parker et al., 2010). In the process of proactively managing one’s career, our findings identify career planning as the mediating mechanism through which proactive graduates attain the early career outcomes considered (i.e., employment status and perceived overqualification). According to our theoretical rationale, a highly proactive personality stimulates individuals to manage their own careers by elaborating career plans, which then helps them to find a job that they think fits their qualifications better. Thus, our findings further support the idea of Bindl et al. (2012), who suggest that, in order to understand how proactive individuals achieve positive career outcomes, researchers should examine the more cognitive elements of implementing proactive goals and plans beyond overt proactive behavior (i.e., proactive career enacting; Presbitero, 2015).

Second, our study also shows that core self-evaluations represent a boundary condition for the influence of proactive personality on career planning when the outcome involved is perceived overqualification. Thus, our study adds to previous research indicating that the extent to which individuals manifest their proactivity (by engaging in career planning) may be a function of some contingencies, such as other internal

dispositions (Grant & Ashford, 2008; Liang & Gong, 2013). According to our theoretical rationale, high core self-evaluations may lead graduates to have biased self-perceptions and expectations, causing them to overestimate their own capabilities and play down the difficulties associated with finding a well-fitted job after graduation. These biased self-perceptions and expectations may lead individuals with high core self-evaluations to dedicate less effort to career planning than individuals with low core self-evaluations, decreasing their likelihood of finding a job with tasks and requirements that, according to them, match their skills and abilities (i.e., a fitted job). Thus, our findings reinforce the concern expressed by several authors that high core self-evaluations may also lead individuals to overestimate their capabilities and experience a state of overconfidence that can have dysfunctional consequences (e.g., Cheung et al., 2016; Hiller & Hambrick, 2005; Stajkovic, 2006). In the present study, this “dark side” of core self-evaluations deactivated the positive relationship between proactive personality and career planning, and the indirect negative effect of proactive personality on graduates’ perceived overqualification.

It is surprising that core self-evaluations did not moderate the relationship between proactive personality and career planning (and the investigated indirect effect) when the outcome considered was employment status. There can be several reasons for this result. First, the samples used to test the hypothesized relationships for the two outcomes considered were different. When the outcome was employment status, the sample was composed of employed and unemployed graduates, whereas when the outcome was perceived overqualification, the sample was only composed of employed graduates. The differences between the two samples might have had a role in the different results observed. These results highlight the need to replicate the analyses in other samples. Second, our results suggest that the moderator role of core self-evaluations is activated when subjects have already experienced initial success in their early professional career

(i.e., obtaining a job). Thus, the combination of having a high level of core self-evaluations and experiencing initial success might have triggered the overconfidence that weakens the influence of proactive personality on overqualification via career planning (Cheung et al., 2016). More research is clearly needed to shed light on the factors that shape the moderator role of core self-evaluations.

Third, researchers have suggested the need to go beyond examining proactive personality in isolation to examine different profiles that characterize distinct patterns of proactivity and career self-management (see Grant & Asford, 2008, for a revision). Our findings suggest that the combination of proactive personality and core self-evaluations may make up one of these profiles. In congruence with the overconfidence approach to career self-management, the results suggest that career self-management proactivity (i.e., career planning) is higher when proactive personality is high and self-core-evaluations are low. Any other combination of proactive personality and core self-evaluation levels yields lower levels of career planning.

Fourth, the literature on objective and perceived overqualification has paid considerable attention to its consequences. However, knowledge about its antecedents is still scarce (see Yang et al., 2015, for an exception). Our study contributes to filling this gap in the literature by identifying two individual characteristics (proactive personality and core self-evaluations) and a career self-management behavior (career planning) as relevant antecedents. In doing so, we contribute to constructing a more comprehensive view of the nomological network of perceived overqualification.

Practical implications

The study findings have clear practical implications that are especially relevant considering the context where this investigation was conducted (Spain). As mentioned above, when the data were collected (2015), the percentage of young people between 25

and 29 years old with a university education who were unemployed and the percentage of young graduates who held jobs requiring less education than their education level were relatively high within the European Union (20% and 33.7%, respectively). Thus, strategies to increase employment rates and reduce overqualification among young Spanish graduates should be welcomed. In this regard, our findings suggest some initiatives.

Considering the mediating role of career planning in the relationship between proactive personality and the considered outcomes (employment status and perceived overqualification), universities' career counseling services should help students to develop their abilities and motivation to take control of their future careers by setting career goals and planning strategies to achieve them. These types of services could contribute to increasing the likelihood that recent graduates will be employed shortly after graduation in a job for which they do not perceive themselves to be overqualified.

The moderator role of core self-evaluations observed here suggests that university career counselors should help students with high core self-evaluations to more precisely assess their own capabilities and expectations in order to keep them from falling into a state of overconfidence that can deactivate their career planning activity and its positive consequences. University career counselors can do this by recognizing these students' capabilities while also making them aware of their weaknesses, such as their lack of professional experience. Moreover, they can help students to find a *reason to be proactive* (see Parker et al., 2010, for a revision) by following different strategies. First, they can make students aware of the benefits of setting and pursuing career goals in order to enhance the utility judgments of their career plan. These judgments will influence their goal commitment and determination to reach their career goals (Eccles et al., 1983). Second, when career goal attainment brings about a sense of fulfillment or allows them to express values that are central to the self, individuals are motivated to set and pursue proactive

career goals because they are likely to internalize and perceive this process as self-determined (Parker et al., 2010). Thus, in order to enhance graduates' (intrinsic) motivation to engage in proactive career self-management, university career counselors can help students to ascertain which career goals might help them to fulfill important life goals and coincide with their core values and interests. Finally, university career counselors can also help students to ascertain who they want to become in terms of their professional future. When this *future work self* (i.e., an imagined, hoped-for future identity that captures an individual's hopes and aspirations in relation to work) is activated, it is likely to motivate them to display proactive career-oriented behaviors, such as career planning (Strauss, Griffin & Parker, 2009).

Limitations

The results obtained must be interpreted with some limitations in mind. First, the sample investigated was composed of graduates from Spain (a country with a specific social, political, and economic context). Moreover, they all had a high educational level. These particular characteristics limit the generalizability of our findings to other samples and countries. Second, all the study variables were measured through self-reports from a single source, which could have inflated the direct and indirect relationships among the variables. However, the fact that some variables showed correlations close to zero suggests that this concern was not serious in our study. Moreover, even though common method variance makes it more difficult to detect moderator effects (Siemens, Roth, & Oliveira, 2010), we were able to find them. Third, overqualification was measured by means of graduates' self-reports, which limits our knowledge about the objective characteristics of the positions occupied by the graduates who found a job. Finally, we used a time-lagged design with two measurements points, where both the predictor and mediator were measured at Time 1, which may have inflated their relationship.

Implications for future research

Our study offers some interesting ideas for future research. First, in order to ascertain the generalizability of our findings, future studies should test the relationships addressed here in samples from different countries and with greater educational heterogeneity. Second, considering that subjective and objective measures of overqualification are capturing an overlapping but different phenomenon (see Liu & Wang, 2012; Maltarich, Reilly, & Nyberg, 2011), future research should examine our research model by including objective measures of overqualification. This would allow a more detailed understanding of the benefits that proactive personality and career planning may have for graduates' careers. Third, from the process view of proactive career behavior, career planning represents a cognitive element that would precede other behavioral elements in this process, such as networking or job search effort (De Vos et al., 2009; Presbitero, 2015). Thus, it would be interesting for future research to examine these distinct elements (i.e., cognitive and behavioral) in a single study to obtain a broader view of this process. In this regard, it would be helpful to measure proactive personality, career planning, and overt career behaviors (e.g., job search behavior and effort) at different time points to further our understanding about how these variables are articulated over time and, in turn, how the influence of proactive personality on early employment outcomes develops.

Conclusion

In sum, our study contributes to clarifying why and how proactive personality is positively related to recent university graduates' employment status and negatively related to their perception of overqualification via career planning. Moreover, it identifies core self-evaluations as a boundary condition that can deactivate the relationship between proactive personality and perceived overqualification via career planning when they are high.

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Figure captions with notes

Figure 1.

Parameter estimates for the moderated mediation model when the outcome was employment status.

Note: p values are two-tailed. $^{\#}p < .10$; $*p < .05$; $**p < .01$. Coefficients are completely standardized. Standard errors are in brackets. Control variables are not depicted in this figure for the sake of clarity.

Figure 2.

Parameter estimates for the moderated mediation model when the outcome was perceived overqualification.

Note: p values are two-tailed. $*p < .05$; $**p < .01$. Coefficients are completely standardized. Standard errors are in brackets. Control variables are not depicted in this figure for the sake of clarity.

Figure 3.

Conditional indirect effect of proactive personality on perceived overqualification through career planning as a function of core self-evaluations.

Note. The horizontal line denotes an indirect effect of zero. The vertical line represents the boundaries of the region of significance.

Table 1
Descriptive Statistics and Correlations for Study Variables (N=315 graduates)

Variable	Range	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Dummy 1 – Humanities	0-1	.12	.32									
2. Dummy 2 – Nat. Sc.	0-1	.08	.27	-.11 [#]								
3. Dummy 3 – Health Sc.	0-1	.25	.44	-.21**	-.17**							
4. Dummy 4 – Social Sc.	0-1	.53	.50	-.39**	-.31**	-.62**						
5. Educational level	0-1	.37	.48	-.18**	.08	-.07	.13*					
6. Gender	0-1	.27	.45	.04	.09	-.11*	-.01	.10 [#]				
7. Proactive Personality T1	1-6	4.69	.75	-.01	-.16**	.14*	-.02	-.10 [#]	-.10 [#]			
8. Core Self-Evaluations T1	1-6	4.28	.71	-.10 [#]	-.09	.14*	-.02	-.02	-.14*	.49**		
9. Career Planning T1	1-6	4.07	1.09	-.03	-.11 [#]	.15**	-.04	-.06	.06	.42**	.32**	
10. Employment Status T2	0-1	.45	.50	-.01	-.09	.03	.04	.02	.02	.05	-.03	.10 [#]

Note: *p* values are two-tailed; [#] *p* < .10; * *p* < .05; ** *p* < .01

Table 2

Descriptive Statistics and Correlations for Study Variables (N=106 graduates employed at T2 in a job obtained after graduation)

Variable	Range	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Dummy 1 – Humanities	0-1	0.10	.31									
2. Dummy 2 – Nat. Sc.	0-1	.06	.23	-.08								
3. Dummy 3 – Health Sc.	0-1	.21	.41	-.17 [#]	-.13							
4. Dummy 4 – Social Sc.	0-1	.61	.49	-.43**	-.31**	-.64**						
5. Educational level	0-1	.40	.49	-.09	.05	-.08	.09					
6. Gender	0-1	.70	.46	.18 [#]	.11	-.08	-.11	.31**				
7. Proactive Personality T1	1-6	4.71	.43	-.01	-.14	.14	-.03	-.06	-.16 [#]			
8. Core Self-Evaluations T1	1-6	4.25	.68	-.15	-.05	.12	.05	-.02	-.19 [#]	.54**		
9. Career Planning T1	1-6	4.24	1.06	-.01	.01	.14	-.08	-.05	.09	.43**	.30**	
10. Perceived overqualification T2	1-6	3.81	1.43	.16	-.13	-.27**	.19 [#]	-.08	-.04	-.06	-.15	-.19*

Note: *p* values are two-tailed; [#] *p* < .10; * *p* < .05; ** *p* < .01.

Table 3

Bias-corrected bootstrap confidence intervals for the conditional indirect effects of proactive personality on perceived overqualification via career planning

Conditional Indirect effect ($a + c W$) b			
Moderator values	95% Lower Limit	Estimate	95% Upper Limit
W mean – 1 SD	-0.215	-0.10	-0.006
W mean value	-0.116	-0.05	-0.002
W mean + 1 SD	-0.030	0.01	0.100

Note. W = moderator variable (core self-evaluations); SD = standard deviation.

The conditional indirect effects are completely standardized

Figure 1

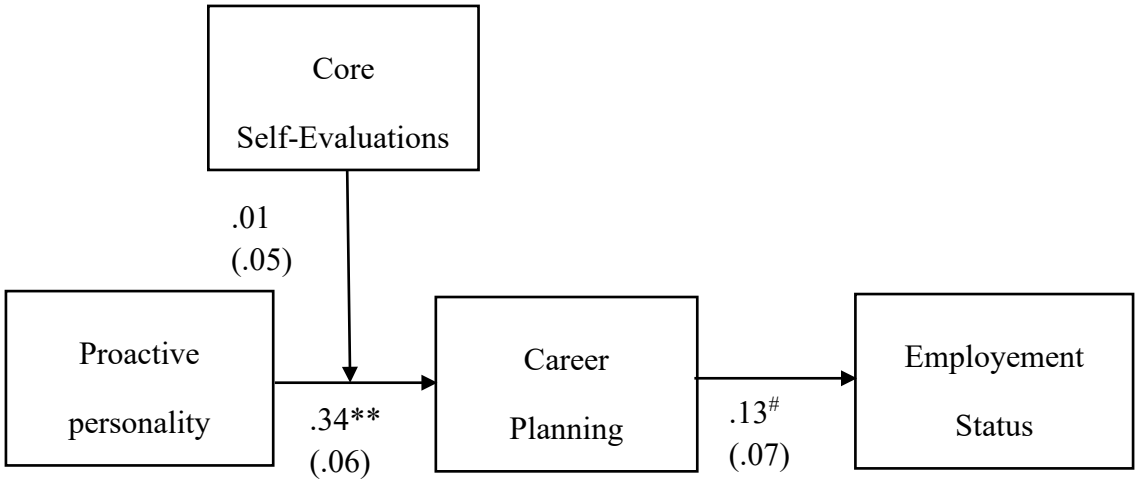


Figure 2

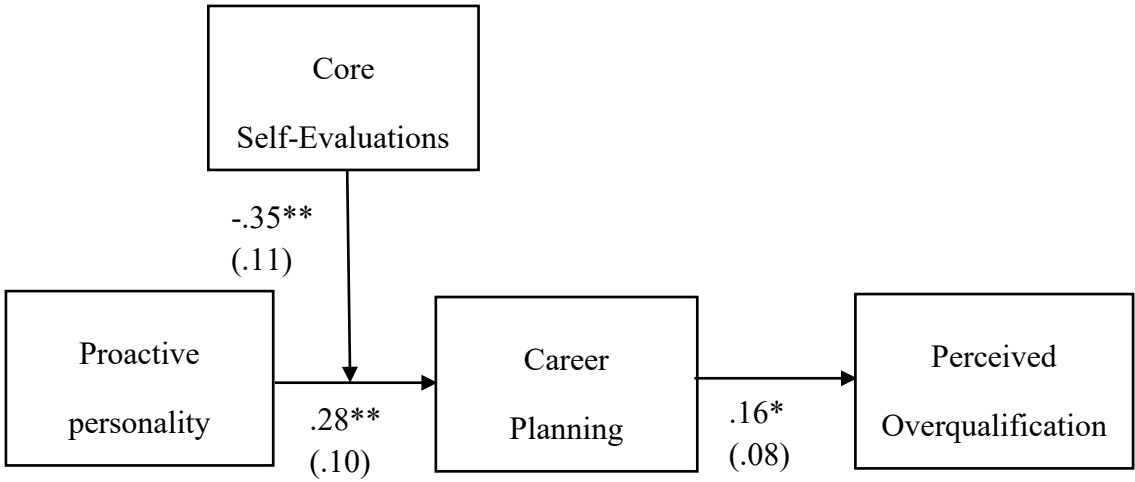


Figure 3.

