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The contemporary career navigator

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2014

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

Fleisher, C. (2014). *The contemporary career navigator: Individual and organizational outcomes of self-directed career management*. [PhD-Thesis - Research and graduation internal, Vrije Universiteit Amsterdam]. ABRI.

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Chapter 2

THE LINK BETWEEN CAREER CAPITAL DEVELOPMENT AND EMPLOYEES' CONTRIBUTIONS TO ORGANIZATIONS: AN EMPIRICAL STUDY OF DRIVERS AND CONSEQUENCES

Abstract

Over three decades ago scholars have recognized career studies as the vanguard for studying the link between individuals and organizations (Barley, 1989). Nevertheless, despite the growing evidence suggesting that individual career self-management has an important economic value for organizations (e.g., Somaya, Williamson, & Lorinkova, 2008), very little empirical studies have extended this line of work to investigate the contribution of such career behavior to organizations. Using an original data set of employees' career development in 2 public organizations in the Netherlands, this is the first study to empirically examine how contemporary employees, through their career capital development, shape organizational core competencies. Furthermore, this is also the first attempt to investigate the role of career capital as a mediating factor between who people are (i.e. personality traits) and the support they get, and individuals' contributions to organizations.

Keywords: Career Capital; Three ways of Knowing; Extraversion; Openness to experience; Organizational Career Support; Organization Core Competencies.

Introduction

Although researchers have emphasized the importance of individual knowledge and learning as resources for organizational competitive advantage (Nahapiet & Ghoshal, 1998; Quigley, Tesluk, Locke, & Bartol, 2007; van den Hooff & Huysman, 2009), it is still unclear how these can create value for organizations (Hinds & Pfeffer, 2003; D. H. Kim, 1993; McLure-Wasko & Faraj, 2005). These individual resources are derived from one's work experiences and they synthesize framed learning, values, contextual information and expert insights (Davenport & Prusak, 2000), which are highly useful for organizational innovation and development (Chesbrough, 2003). Therefore studying how individuals' resources are embedded in an organization, and consequently under which conditions, is crucial for management and organization scholars (Argote, McEvily, & Reagans, 2003).

The contemporary career literature suggests that these individual resources are reflected in the development of career capital - the non-financial assets embodied in the skills, expertise, and relationship networks that employees acquire as their careers unfold (Inkson & Arthur, 2001). As such, careers are better understood as repositories of knowledge and learning arenas (Bird, 1996). In turn, this career capital becomes available to current or potential employers, upon which organizations can adapt and influence future actions (Arthur et al., 1999; Carlsson, El Sawy, Erkiison, & Raven, 1996; DeFillippi et al., 2006; Weick, 1996). As career theory provides a glance at the nexus between individuals and the social forms in which these construct their careers (Gunz & Heslin, 2005), strategic and management scholars have been increasingly adopting this knowledge-based view of careers to study the link between individual and organizations (Arthur, DeFillippi, & Jones, 2001; Arthur et al., 1999; Inkson & King, 2011).

Recent empirical evidence suggests that the capital individuals develop and accumulate as their career unfolds may have an important economic value for organizations

(Corredoira & Rosenkopf, 2010; Dokko & Rosenkopf, 2010; Somaya et al., 2008). Yet, evidence is still limited and disagreement perseveres regarding the potential impact of employees' careers on organizations (Currie et al., 2006; Lazarova & Taylor, 2009). Therefore, there is a need for further empirical clarification to understand in which ways employees cross-pollinate their acquired career capital to their employers (Arthur, 2008). This paper attempts to fill this research gap by answering the following question: What are the organizational consequences of employees' career capital development? Specifically, we empirically examine Arthur and associates' assumptions (Arthur et al., 2008; DeFillippi et al., 2006) that employees' development of professional identity, expertise and networks (i.e. career capital development) enhance organization's core competencies.

However, as not all employees contribute to their employer the same way, one can expect that the development of career capital will depend on relevant explanatory factors (Eby et al., 2003; Greenhaus, Callanan, & DiRenzo, 2008; Kuijpers & Scheerens, 2006). After all, "any level within a hierarchical system cannot be understood in isolation because it is shaped by—and in turn shapes—other system levels" (Molloy, Ployhart, & Wright, 2011, p. 582). Thus, understanding the drivers that shape career capital could consequently shed light on the extent to which people bring and apply these resources at their workplace. Recent studies have further emphasized this important agenda by calling for research that takes into account traits and other individual, as well as work-related differences which are proposed to influence career development (Briscoe et al., 2006; Sullivan & Arthur, 2006; Sullivan & Baruch, 2009).

From an organizational behavior perspective, scholars have highlighted the role psychological factors (e.g., personality) play in vocational behavior (Schein, 1987; Super, 1957). For example, Eby and her colleagues (Eby et al., 2003) found that individuals manage their work situations better when they are more proactive, flexible, open for new experiences,

and reflecting on career capacities and motives. Others have showed that Extraversion personality trait is related to higher network behavior (e.g., Forret & Dougherty, 2001). This may reap benefits for organizations, as these employees tend to take initiatives and actions to improve work circumstances (Berg et al., 2010; Tims & Bakker, 2010), and can result in increased firm's knowledge base and dissemination of ideas. From human resource (HR) perspective, it is also important to understand the relationship between organizational-related factors and career development (Baruch, 2004a, 2004b). After all, organizational characteristics are manifested through practices, policies and shared values (Sullivan & Baruch, 2009). As shown by the career management literature, the perceived organizational support may inspire employees to take responsibility for managing their own career development (Baruch, 2006; De Vos, Dewettinck, et al., 2009; N. Kim, 2005), which will have further impact on employer related outcomes (Gati & Tal, 2008; Kuijpers & Scheerens, 2006; Sturges et al., 2002).

In this study we propose and empirically test a model of specific relationships between individual career capital development and organization's core competencies. By using an original data set of employees' career development in two public organizations in the Netherlands, this study specifically examines and compares the extent to which by investing in their career development employees contribute to their employer's culture, capabilities and connections. We further extend this model to look at the drivers that shape individuals career development by investigating career capital as a mediating factor between who people are (i.e. personality traits) and the career support they get to their contributions to organizations. Figure 2.1 depicts the research model and portrays the structure of the following sections.

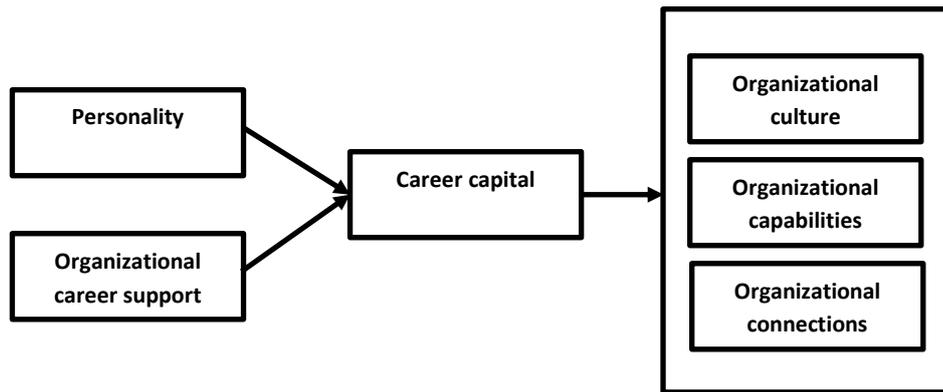


Figure 2.1 Conceptual model

With this study we aim to make several contributions. First, we address the question of how employees impact their employers, through the development and accumulation of career capital (Kamoche et al., 2011). Whereas much of the empirical work has focused on the relationship between career self-management and individual consequences (Anakwe, Hall, & Schor, 2000; De Vos & Soens, 2008; Eby et al., 2003; Kuijpers et al., 2006), few studies have considered the mutual individual-organizational relationship or the “contested terrain” between the two (Inkson & King, 2011; O’Reilly & Pfeffer, 2000). Thus, this is the first study to empirically address the link between career capital development and contribution to organization’s core competencies.

Second, we expand our knowledge on the nature of the development and accumulation of career capital by considering relevant personal and organizational antecedents (i.e. personality traits and organizational career support). We do so by taking an interdisciplinary approach (Arthur, 2008; P. Parker et al., 2009) to inquire the extent to which psychological and sociological factors play role in guiding career development. Finally, we present a fresh look at the role of career capital as a mediating factor. By putting career capital development at the core of our research enquiry, we are able to understand better how

individual personal and organizational factors contribute to organizational core competencies through the development of career capital.

To achieve these objectives we next provide a brief review of our core concepts of career capital and organizational core competencies to properly position our research. We end our theoretical framing by identifying individual and organizational variables important for our understanding of career development. After specifying our research setting and sample, we present the results. We conclude with the discussion of the implications of these findings both to theory and practice.

The development of career capital

The key focus in this study is that career is a vehicle through which one accumulates experience and knowledge, and subsequently how this accumulated capital shapes his or hers workplace. The emergence of the knowledge economy, and related changes in the employment relationship make “a habit of introducing new ways of working, condemning old ways of working, and thereby triggering changing career arrangements around the globe” (Arthur, 2008, p. 174). Under these changes, career development is no longer assumed to reflect hierarchical progression and instead employees are seen to pursue what many refer to as self-management careers (Sturges et al., 2010). We therefore define career as “an individual’s work-related and other relevant experiences, both inside and outside of organizations, that form a unique pattern over the individual’s life span” (Sullivan & Baruch, 2009, p. 1543).

Scholars have investigated self-management careers widely under various theoretical models such as the boundaryless career (Arthur & Rousseau, 1996a) and the protean career (Hall, 2004), or more recently under emerging “integrative frameworks” (Sullivan & Baruch, 2009). Although these frameworks are independent, they emphasize related notions and therefore are highly useful in conceptualizing the career patterns enacted in today’s dynamic

and fluid work environment (Baruch, 2004a; Briscoe & Hall, 2006; Donnelly, 2009). Under these circumstances, career management is driven by employer-independency where employees take the responsibility of managing their own careers (as opposed to career development managed by the organization) (Hall, 2004; Khapova et al., 2007). Consequently, employees are constantly adapting and managing change in themselves and in their contexts (DiRenzo & Greenhaus, 2011; Fugate et al., 2004).

These work experiences enable individuals to engage in learning and developmental opportunities through which they develop their professional identities, marketable skills and relationships that cross the boundaries of current or prospective employers (DeFillippi & Arthur, 1994). Following this notion, we view careers as ‘repositories of knowledge’ that involve “accumulation of information and knowledge embodied in skills, expertise, and relationship networks that are acquired through an evolving sequence of work experiences over time” (Bird, 1996, p. 150). Arthur and associates propose that through their evolving sequence of career experience, individuals accumulate essential career capital by investing in developing three career competencies or “ways of knowing”, namely: knowing-why, knowing-how and knowing-whom (Arthur et al., 1995; Inkson & Arthur, 2001).

Knowing-why investments reflect an individual’s response to the question “*Why do you work?*” (Arthur et al., 1995). This form of capital integrates an “individual’s motivation and identity, and the related personality, self-concept, dispositions, interests and values that are invested in pursuing a career” (P. Parker et al., 2009, p. 2). Knowing-why can be viewed as the essence and extent of one’s identification with the employing organization’s culture or sector. It derives from an individual’s general work motivation, beliefs and values. Investing in this career competence helps individuals better develop their self-knowledge and understand how to construct their personal meanings and express their identities through work. Finally, knowing-why exemplifies family, dual career and other non-work

circumstances, which are likely to affect the overall commitment, adaptability and career choices (Arthur et al., 1999). It is worth mentioning that this form of competency normally entails something other than the pursuit of permanent full-time employment (Arthur et al., 1995) and relates to one's openness to explore new career experiences (Arthur et al., 1999; Bridges, 1994; Mirvis & Hall, 1994).

Knowing-how investments reflect an individual's response to the question "*How do you work?*" and encompass career-relevant skills and expertise. Knowing-how relates to the skills and expertise a person accumulates throughout his or her career and "contribute to both the organization's and the individual's base" (Eby et al., 2003, p. 692). Although often broadly referred to as "human capital" (G. S. Becker, 1962; P. Parker et al., 2009), knowing-how differs for two reasons. First, individuals invest in knowing-how by drawing on both formal occupational learning (e.g., classrooms or self-study) and experiential learning (e.g., on the job learning activities). The employment context allows people to apply and enlarge their generic skills and expertise. Second, the pursuit to broaden knowing-how competencies beyond present job demands, can lead people to transport their broad and flexible skill base across boundaries of multiple employment settings. Therefore, we may expect people to seek alternations for their work arrangements so they can enhance future career opportunities and employability (DeFillippi & Arthur, 1996; Gunz, Evans, & Jalland, 2000). However, this is only the case when physical mobility is high (Arthur, Khapova, & Wilderom, 2005).

Finally, knowing-whom investments reflect an individual's response to the question "*With whom do you work?*". Knowing-whom is referred to the set of interpersonal relationships an individual accumulate from both inside and outside the workplace, other occupational and professional society attachments and further contacts with family, friends and social acquaintances (Gabbay & Leenders, 2001; P. Parker et al., 2009). The advantages of such relationships are that they are an important source for information exchange,

reputation development and learning (Eby et al., 2003; P. Parker et al., 2009). Knowing-whom investments provide opportunities for career support and personal development through the development of ‘career communities’ networks (P. Parker & Arthur, 2000).

Although the three ways of knowing are argued to be particularly relevant in the context of high levels of physical and/or psychological mobility (Sullivan & Arthur, 2006), given the uncertainty of contemporary work environment, it is likely that these investments are important no matter the type of enacted career. The dynamics and extensiveness of the three ways of knowing provide a valuable framework to study career experiences, orientations, competencies and behavior across different employment situations. Recent studies have therefore adopted the career capital model to empirically examine individuals’ career development in various organizational, national and cultural settings (Cappellen & Janssens, 2008; De Janasz & Sullivan, 2004; Dickmann & Doherty, 2008; Eby et al., 2005; Khapova & Korotov, 2007; Rodriguez & Scurry, 2013; Suutari & Mäkelä, 2007). In the following section we further elaborate on how the notion of the three ways of knowing can be employed to better understand the ways employees’ career capital can contribute to organization’s core competencies (DeFillippi et al., 2006).

Career capital and contributions to organizational core competencies

The first aim of this study is to investigate the link between individual and organizational resources. We therefore suggest taking a contemporary perspective on careers to recognize them as the mechanisms that link individuals to organizations (Jones & Dunn, 2007). Under this view, as stated above, careers are better understood as repositories of knowledge and learning arenas’, which reflect the acquisition and accumulation of distinct career capital. By combining, articulating and sharing, this career capital becomes available to current or potential employers and form the foundation of organization’s competitive advantage (Bird, 1994; R. M. Grant, 1991, 1996; Spender, 1996; Teece, 2000). Growing number of strategic

and management scholars have been increasingly employing the knowledge-based view of careers to better understand the resources individuals develop and accumulate as their careers unfold (e.g., Corredoira & Rosenkopf, 2010; Dokko & Rosenkopf, 2010; Somaya et al., 2008). These researchers acknowledge that in the knowledge economy the development of career capital is not only vital for one's personal and work-related growth, but also has a significant impact on employers, industries and societies (Arthur, DeFillippi, et al., 2001; Arthur et al., 1999). Hence, developing one's career is suggested to lead to building individual resources for organizational advantage.

We further suggest that Quinn's (1992) work on organizational core competencies can provide a helpful outline for the contributions of individual resources to organizations. As proposed, these core competencies can be recognized in terms of culture (organizational purpose, mission and core values), capabilities (knowledge and skills embodied in organizational activities), and connections (organizational external social capital such as suppliers, customers, and alliance partners) (1990, 1994). DeFillippi, Arthur and Lindsay (2008; 2006) demonstrate that these three organization's core competencies are related to the individual three ways of knowing in such a way that investments in knowing-why contributes to culture, knowing-how investments to capabilities, and knowing-whom investments to connections. Below we further reflect on the extant literature to develop our first set of hypotheses.

Recent empirical studies have provided corroboration for the potential benefits of employees' career capital for distinct organizational outcomes (e.g., K. H. Becker & Haunschild, 2003; Donnelly, 2009). Thus, for example, the leadership literature (House, Javidan, Hanges, & Dorfman, 2002; Yukl, 2012) discusses the ways people contribute to organizational culture by enacting their orientations (Pless, Maak, & Waldman, 2012), values (Elenkov, Judge, & Wright, 2005; Keller, 2006; Wang, Tsui, & Xin, 2011), and motivations

(S. K. Parker, Bindl, & Strauss, 2010). Others focus on how, through the development of identity work, individuals can contribute to the collective shared understanding among organizational members by forming internal legitimacy (e.g., Baruch & Cohen, 2007; A. D. Brown & Toyoki, 2013). By enacting their motivations and orientations employees help spreading consensus on the relevance of particular values, norms, beliefs and strategic actions.

The extant literature also deliberates on the contribution of individuals to organizational capabilities. For instance, researchers have found that employees contribute to knowledge creation and transfer (Cappellen & Janssens, 2005; Furuya et al., 2009; Lazarova & Tarique, 2005; Oddou, Osland, & Blakeney, 2009; Thomas, Lazarova, & Inkson, 2005), talent management (Dickmann & Doherty, 2010; Schuler, Jackson, & Tarique, 2011) recruitment capabilities (Bolino, 2007), innovation (Bornay-Barrachina, De la Rosa-Navarro, López-Cabrales, & Valle-Cabrera, 2011; McAusland & Kuhn, 2011), and the development of competitive capabilities (Lazarova & Cerdin, 2007) through conversion of their individual learning and other career related experiences.

Finally, employees also impact organizational connections through the development of inter-firm networks (Dickmann & Harris, 2005), generation of social capital (Haslberger & Brewster, 2009) and strengthening and exchanging social ties across organizations (Corredoira & Rosenkopf, 2010; Dokko & Rosenkopf, 2010; Somaya et al., 2008). These networks are found to be beneficial to organizations in various ways, such as acquisition of knowledge, attracting new employees as well as customers, and spotting entrepreneurial opportunities (Lazarova & Taylor, 2009). Further evidence has shown that the intra- and inter-organizational networks employees create can increase the number of potential customers, and improves supplier relations (e.g., Forret & Dougherty, 2001; Inkpen & Tsang, 2005; Knoke, 2001).

Following these ample, yet disjointed efforts, we posit that drawing on the accumulated resources embedded in employees' careers can provide developmental opportunities from which an organization can change and better adapt to the changing world (Dodgson, 1993; Huber, 1991; Kamoche et al., 2011; Weick, 1996). For example, individual contributions to organization's core competencies can be manifested through sharing one's motivations and visions with colleagues could consequently inspire and enhance the overall organization's sense of purpose. By applying new practices at work one may add to the organization's competitive capabilities. Finally, bringing new professional contacts to an organization from one's network could in turn become part of the organization's business contacts. These ideas have common characteristics with a broader set of theoretical notions based in the career literature (Arthur et al., 2008; DeFillippi et al., 2006), linking organizational success to the underlying core competencies through which the organization conducts its businesses (P. Parker, 2002). We therefore suggest that:

H1a. Individual investments in knowing-why are positively associated with contribution to organizational culture.

H1b. Individual investments in knowing-how are positively associated with contribution to organizational capabilities.

H1c. Individual investments in knowing-whom are positively associated with contribution to organizational connections.

Antecedents of career capital development

Given the conceptualization of career capital as individual resources that can positively impact career-related outcomes (Inkson & Arthur, 2001), the contemporary career research has widely covered the extent to which career capital impacts personal, as well as work-

related outcomes (e.g., De Janasz & Sullivan, 2004; De Vos & Soens, 2008; Eby et al., 2003; Kuijpers et al., 2006; Sturges et al., 2002). Yet, very little is known about the antecedents of career capital, although both organizational practices and personal characteristics can contribute to the development of career capital (Greenhaus et al., 2008). Considering an increasing call to engage various streams of research from different disciplines to examine career development (Arthur, 2008), employing therefore an interdisciplinary inquiry is an essential aspect in our study. The three ways of knowing framework offers a pertinent outlook on the relationship between relevant antecedents and career capital development given its conceptualization as a multidisciplinary approach that accommodates psychological and sociological perspectives (P. Parker et al., 2009).

Until lately, career theory was mainly dominated by organizational perspective, where hierarchical progression was the leading rationale rather than individual's values and aspirations. The contemporary approach redefined those ideas and put the individual in the center of the career discourse (Arthur & Rousseau, 1996a; Peiperl, Arthur, Goffee, & Morris, 2000). However, careers are neither the sole property of organizations, nor of individuals. The advantage of the career concept is in its ontological duality (Dany et al., 2003), and thus we investigate the effects of personal (i.e. personality), as well as organizational (i.e. career organizational support) related variables, as shaping drivers of employees' career capital. Below we further elaborate on both sets of antecedents and their relationship with career capital development.

Personality characteristics and career capital development

The first set of antecedents concerns psychological factors of individual action, which are central to studies attaching individual differences to career development (Drazin, Glynn, & Kazanjian, 1999; Super, 1957). Studies have found that in the work context, individuals' behavior will be determined among others by personality traits (Seibert & Kraimer, 2001),

personal work-related values (Ravlin & Meglino, 1987), career-related values and orientations (Briscoe et al., 2006; Schein, 1987, 1996), or professional identities (Hall, Zhu, & Yan, 2002; Ibarra & Deshpande, 2007). Given the important role personality plays in vocational behavior research and the established convergence of views regarding the construction of personality traits (Goldberg et al., 2006; Tokar, Fischer, & Mezydlo Subich, 1998), it seems appropriate to extend research by examining the influence of the “Big-Five” personality dimensions on career capital. The five major personal characteristics are Openness to experience (intellectual curiosity; imagination; flexible), Conscientiousness (self-disciplined; aim for achievement), Extraversion (energetic; sociable; assertive), Agreeableness (empathy; good-natured; warm), and Neuroticism (emotional instability; experiencing anxiety; when reversed is referred to as emotional stability) (Barrick & Mount, 1991). These traits are found to be stable in “weak” situations such as and one’s unfolding career context (Ng et al., 2005; Seibert, Crant, & Kraimer, 1999).

Scholars have long recognized that employees ascribe different meanings to their work, and thus consequently will put emphasis on different aspect of their career development (Dychtwald, Erickson, & Morison, 2006). As such, their motivational and career orientation may relate to their different dispositional characteristic (e.g., Amabile, Hill, Hennessey, & Tighe, 1994; Garden, 1997). For example, individuals that are more extraverted, open to experience, and conscientious, were found to have a stronger career commitment and career aspirations (O’Brien & Fassinger, 1993; Rainey & Borders, 1997). Consequently, individuals are attracted to different organizational culture and values. For instance, persons who score high on conscientiousness pursue career paths and aspire to develop themselves in organizations with outcome-oriented cultures (Judge & Cable, 1997). Furthermore, Komarraju and colleagues (Komarraju, Karau, & Schmeck, 2009; Komarraju &

Karau, 2005) found that students' academic motivation was explained by Openness to experience, Conscientiousness and Extraversion. Thus, we expect that:

H2a. Individual personality traits, Extraversion, Openness to experience and Conscientiousness are positively associated with individuals' investments in knowing-why.

Personality traits may also differ for the ways individuals work, thus shaping their knowing-how. Individuals develop their career and engage in learning experiences differently from each other in terms of their personality characteristics (e.g., Cellar, Miller, Doverspike, & Klawnsky, 1996; Hamer & Bruch, 1997; Martocchio & Judge, 1997). For example, Heppner, Multon and Johnston (1994) found that people who scored high on, Openness, Conscientiousness and Extraversion indicated they have more personal resources and abilities to cope with their career transitions. Furthermore, the literature about learning shows that the personality traits Extraversion, Openness to experience and Conscientiousness are related to the learning strategies and styles (know-how) individuals engage in (e.g., Bidjerano & Dai, 2007; Furnham, Monsen, & Ahmetoglu, 2009; Zhang, 2003). Therefore:

H2b. Individual personality traits, Extraversion, Openness to experience and Conscientiousness are positively associated with individuals' investments in knowing-how.

Finally, personality traits have impact on individuals networking behavior. Scholars found that intensity and structure of social relationships are strongly predicted by employees' personality traits (Kirchmeyer & Bullin, 1997). In particular, individuals who score high on Extraversion, Openness to experience, and Conscientiousness are stronger in networking (Forret & Dougherty, 2001; Solberg et al., 1994) and thus receive more support from their environment (Heppner et al., 1994). Thompson (2005) showed that the key personality trait

proactivity is positively associated with to network building activities. Furthermore, Openness to experience and Conscientiousness were also found to predict individuals' intentions to provide or receive mentoring relationships (Allen, Poteet, Russell, & Dobbins, 1997; Bozionelos, 2004; Turban & Dougherty, 1994).

All in all, it is plausible that the personality traits affect individuals' investments in the three ways of knowing. Two of the key personality characteristics related to proactivity and Openness to experience have already been found to positively related to career self-management (Briscoe et al., 2006; Eby et al., 2003; King, 2004; J. W. Lounsbury, Hutchens, & Loveland, 2005; McArdle et al., 2007; O'Sullivan, Strauser, & Wong, 2012). Therefore, given the significant emphasis on agency in developing career capital, we expect that a combination of high Openness to experience, Conscientiousness and Extraversion will be related to higher investments in the three ways of knowing (Sullivan & Arthur, 2006; Tams & Arthur, 2010; Tokar et al., 1998). We therefore suggest that:

H2c. Individual personality traits, Extraversion, Openness to experience and Conscientiousness are positively associated with individuals' investments in knowing-whom.

Organizational career support and career capital development

Along with the increased interest in career self-management, organization scholars have been preoccupied with the ways employers can impact this behavior through organizational career management. Empirical evidence suggests that individual and organizational career management reinforce each other and are complementary, rather than substitutes (e.g., De Vos, Dewettinck, et al., 2009; Sturges et al., 2002). For example, facilitating career capital development is important for employees' employability in the internal labor market (Fugate et al., 2004; Van der Heijde & Van der Heijden, 2006). Organizational career management

reflects how organizational and occupational career structures influence developmental processes among individuals and groups (Drazin et al., 1999). Since organizational characteristics are manifested through routines, policies and practices (Sullivan & Baruch, 2009), we focus on organizational career practices, as these are the institutional means used by organizations to support and develop their employees in their careers (Eby et al., 2005; C. H. Lee & Bruvold, 2003).

The success of organizational career management then largely depends on the way it is used and perceived by employees (Baruch, 2006; Cappelli, 2000). Through the use of organizational career practices, employees in fact assess the degree of compatibility with organizational values and practices, facilitating individuals' adaptation and career development (Ballout, 2007; Baruch, 2004b). Given the inter-relatedness of individual and organizational career management, the main assumption in this study is that the use of organizational support practices facilitate employees' career capital development (Dany et al., 2003; Sturges et al., 2005).

For example, recent studies suggest that career capital development relates to employees perceptions of organizational career support (Baruch, 2006; De Vos, Dewettinck, et al., 2009; Sturges et al., 2010). Howard and Foster (1999) found that organizational support provides employees with empowerment and abilities to take initiatives at work. The implemented HR practices have an impact on employees' career behavior, such as career choice decisions (Bretz & Judge, 1994). Furthermore, it has been suggested that employing multiple practices (so-called HR bundles) can effectively enhance employees' motivations (i.e. know-why), skills (i.e. know-how) and networks (i.e. knowing-whom)(Collins & Clark, 2003; Huselid, 1995; Ichniowski, Shaw, & Prensushi, 1997; Leana & van Buren III, 1999; Youndt, Snell, Dean, & Lepak, 1996). We therefore expect that:

H3. Organizational career support is positively associated with investments in knowing-why, knowing-how, and knowing-whom.

Examining the drivers that shape individuals' career capital is not only important for understanding career capital, but also their indirect effect on organization's core competencies. Given the conceptualization of the sets of antecedents as general personal and organizational characteristics, we further propose that the impact of personality traits and organizational support on organization's core competencies will be indirect, going through career capital development (as a mediator). More specifically, we predict indirect effects of individual personality traits (Openness to experience, Conscientiousness and Extraversion) and use of organizational career support on contribution to organizational culture, capabilities and connections:

H4a. Career capital mediates the relationship between Extraversion, Openness to experience, and Conscientiousness, and contribution to organization's core competencies.

H4b. Career capital mediates the relationship between organizational career support and contribution to organization's core competencies

The empirical model we have developed portrays the impact of personality and organizational career support on organization's core competencies as being fully mediated by the three forms of career capital (Hypotheses 4a and 4b). These two hypotheses are significantly important, as they are the first one to posit the role of investment in career capital as mediating factor between who people are (i.e. personality) and how they make use of organizational resources (i.e. career support), and their consequent contribution to organization's core competencies. Despite the plausibility of such model, prior work suggests that personality and organizational career support may also have direct impact on

organizational outcomes (Berg et al., 2010; Gati & Tal, 2008; Kuijpers & Scheerens, 2006; Sturges et al., 2002; Tims & Bakker, 2010). Following this notion, we accordingly also assess the likelihood of partial mediation.

Method

Sample and context

The key idea of this study was to investigate career behavior of contemporary employees in the public sector. To test the aforementioned empirical model, data were collected from two governmental organizations in the Netherlands between June and September 2009². The first organization is a law enforcement institute (Police), while the second is an urban administration organization (Municipality). Having the two samples from the same sector provides us with an opportunity to compare the conceptual model and shed light on the portrayed relationships across similar, yet distinct organizations. A total of 1,312 employees of various functions and levels from both organizations were initially invited to take part in the study by filling in a web-administrated survey. Each invitation included a brief explanation about the research, purposes and link to the survey. Considering we contacted people during the summer period, follow-up emails and reminders were also sent to participants who have not completed the questionnaire. Furthermore, since the native language of all participants is Dutch, the originally developed English scales were translated and then back-translated by an expert panel (including a well experienced senior faculty) and presented to the respondents in the Dutch language. All scales, unless specified otherwise, were measured using a 5-Likert scale (1 = Totally disagree, 5 = Totally agree).

² We would like to acknowledge the contribution of Angela ten Hove and Marnix Geraedts to the data collection process, as part of thesis circle 2009 “*Employees career investments for organizational learning and performance*”.

Subjects

Of the 1,312 invited employees, 215 Police employees ($n = 735$, 27% response rate) and 269 Municipality employees ($n = 577$, 46%) completed the survey, which included questions about career behavior, performance, career success, work attitudes, and background factors (all variables were measured in both organizations). After listwise deletion of missing values the samples included 194 respondents for Police and 239 for Municipality, comprised of 54% and 61% males respectively. The average age of the respondents was 35 years with a median age of 32 years at Police and 45 years with a median age of 46 years at Municipality. The majority of the respondents were married or cohabitating (Police; 75%, Municipality; 80%). Table 2.1 displays main characteristics of both samples including organizational tenure, type of contract and educational level.

Measures

Career capital was measured with an adapted version of the ‘Three Ways of Knowing’ scale (Khapova, Arthur, & Fleisher, 2009; Khapova, 2006). The 12-item multidimensional measure includes three sub-scales (a) knowing-why, 5 items (e.g., “I navigate my own career, based on my personal priorities, as opposed to my employer's priorities”) (b) knowing-how, 3 items (e.g., “I continuously invest in improving my professional skills”), and (c) knowing-whom, 4 items (e.g., “I regularly network with individuals outside my organization”). Confirmatory factor analysis and reliability analysis were used to confirm the number of factors and loadings of the three measured sub-scales. The final reliability scores (Chronbach’s α) of these sub-scales varied from .63 for knowing-why, .70 for knowing-how, to .81 for knowing-whom. While the commonly cut-off point is $\text{Alpha} \geq .70$ (Cortina, 1993; Pallant, 2007), scholars have suggested that values near .60 can also be recognized and accepted (Hair, Bush, & Ortinau, 2006; Hatcher & Stepanski, 1994), particularly when the factor have only few items. We therefore accept these for our statistical consideration.

Table 2.1 Demographic characteristics of Police and Municipality

Variables	Police (N = 196)	Municipality (N = 245)	T-test	Chi-square test
Age**	35 (8.51)	45 (10.92)	22.57 (439, -10.24)	
Organizational tenure	9.44 (10.44)	11.71 (10.81)	0.73 (439, -2.23)	
% Men	54.6%	61.2%		1.97 (1, 0.16)
% Level of education^**				21.89 (3, 0.00)
1: Secondary education	10.7%	2.9%		
2: Secondary or middle vocational	5.6%	7.8%		
3: Higher vocational	44.9%	32.7%		
4: College/University	37.8%	54.3%		
% Family situation				1.58 (1, 0.21)
1: Single	26.8%	33.3%		
2: Married or living together	73.2%	66.7%		
% Type of contract**				80.62 (1, 0.00)
1: Full-time	25%	20%		
2: Part-time	75%	80%		

Note: Means and standard deviation scores are presented between brackets

^ Difference in numbers due to missing values.

* Significant differences between organizations (p < .05).

** Significant differences between organizations (p < .01).

Individual contributions to organization's core competencies were measured with an adapted version of Khapova and colleagues' multidimensional scale (2009; 2006). The first scale concerns '*individual contributions to organizational culture*' ($\alpha = .77$) and encompasses 6 items (e.g., "I continuously seek to be innovative in the work I deliver"). The scale '*individual contributions to organizational capabilities*' ($\alpha = .81$) covers 7 items. Example item is "My expertise is applicable to other functional areas of my organization". Finally, the participants were asked to respond to the 6-item '*individual contributions to organizational connections*' scale ($\alpha = .82$), which included items such as "I look out for professionals outside my organization who can be helpful in my work" and "I actively solicit information from my professional contacts applicable to my work".

Personality traits. There is an extensive body of research concerning personality, which covered by the scientific collaboration for the development of advanced measures of personality traits and other individual differences (Goldberg et al., 2006; "International Personality Item Pool," 2013). In this study we measured personality traits using the Dutch version ("International Personality Item Pool," 2013) of Goldberg's Big-Five multidimensional scale (Goldberg, 1999), as it appears to be the most simple and accessible measurement for our context. The scale involves negatively formulated items as well, which were reversed in order to fit all items. While the scale consists of 5 dimensions (each dimension includes 10 items) describing who people are, in our study we focused on three personality traits - these are Openness to Experience/Intellect ($\alpha = .70$), Conscientiousness ($\alpha = .76$), and Extraversion ($\alpha = .78$).

Organizational career support scale followed the notion that organizations should offer a bundle of organizational practices to support and facilitate career development (Toh, Morgeson, & Campion, 2008). For this purpose we conducted a desk research to identify a representative set of HR career support practices used by various organizations in different

settings, including the public sector (e.g., Harel, Tzafrir, & Baruch, 2003; Kooij et al., 2013; Kooij, Jansen, Dikkers, & de Lange, 2010; Toh et al., 2008). Based on these results, we constructed a new measure to examine whether employees *utilize* these career practice and to what extent (Baruch, 1997). Accordingly respondents were asked to which degree (on a 5-Likert scale) they use each one of the 17 listed career support practices. Some examples of the practices are: training, socialization, mentoring, career development, empowerment, and other performance-based practices. We averaged the item scores to form total score for individual use of organizational career support ($\alpha = .67$).

Control variables. First and foremost, we controlled for organizational type. Although the basic work character of both institutions relates to community and services of a state, we decided to treat Police and Municipality as two separate entities. In particular, we identify Police as a formal bureaucratic organization, which has distinct characteristics from Municipality such as complex organizational structure, highly specialized sections, and defined hierarchical structure (Dantzker, 1999). For this we created a dummy variable (0 = Police, 1 = Municipality). Furthermore, we also considered the impact of other related variables such as gender, age, education, organizational tenure, and marital status given the importance of these demographics and socio economic status indicators in the work context (cf. Bakker, Demerouti, & Schaufeli, 2005; Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007). While selecting our control variables we ensured that on the one hand they correlate with the dependent variables and on the other they have relatively low inter-correlations among themselves (Singh et al., 2009). Age was the single variable to correlate with the dependent variables in both samples, and given its high correlation with the other potential control variables (education, marital support, and organizational tenure) we controlled only for organizational type and age in our analyses³.

³ Inter-correlations among all variables are shown in table 2.2 (2-tailed significance).

Statistical analysis

In this study we firstly opt to examine personal and organizational drivers that shape employees' career capital (i.e. three ways of knowing). However, considering the conceptualization of our antecedents, we also suggested indirect causality, in which the three ways of knowing may act as mediating factors. To do so, in our statistical procedures we use a mediation regression analysis (Ordinary Least Squares (OLS)) to help answer the question of how personality traits and organizational career support convey their (direct and indirect) effects on organization's core competencies through the three ways of knowing. While we recognize the usefulness of using the causal steps approach (Baron & Kenny, 1986), we also acknowledge the limitations of such a method. Similar to the Sobel test (Sobel, 1982), the casual steps approach requires the estimation that the sampling distribution is normal (Shrout & Bolger, 2002). For this purpose, we constructed 95% bootstrap percentile confidence intervals for inference about indirect effects based on 5,000 bootstrap samples (Preacher & Hayes, 2004, 2008). Finally, post-hoc tests (i.e. *omnibus* and *homogeneity of regression*) were conducted to examine how well the statistical model fits our set of observed data⁴.

⁴ The *omnibus* tests the significance effects on the dependent variables (DV's) of at least one of the predictors in the set of independent variables (IV's). The *homogeneity* tests for the possibility there is an interaction between the IV's and the Mediator, thus it rejects the possibility for moderation assumption in the proposed mediation model (Hayes, 2013).

Table 2.2 Descriptive statistics and correlations for Police and Municipality

	<i>Mean</i>		<i>SD</i>		1	2	3	4	5	6	7	8	9	10	11
	P	M	P	M											
1. Age	35.32	44.79	8.51	10.92	----	-.11*	.06	-.12*	-.11*	-.32***	-.26***	.10	-.10	-.14**	-.14**
2. Extraversion	3.48	3.27	0.5	0.61	-.07	----	-.07	.29***	.18***	.32***	.33***	.27***	.28***	.32***	.32***
3. Conscientiousness	3.82	3.64	0.47	0.52	0.11	-.01	----	-.10	-.05	-.04	.06	-.05	-.11	-.15**	-.09
4. Openness to Experience	3.53	3.43	0.48	0.59	-.04	.23***	.21**	----	.07	.32***	.37***	.33***	.56***	.50***	.41***
5. Org Career Support	1.31	1.90	0.55	0.52	.06	.00	.06	-.02	----	.16**	.23***	.17***	.18***	.24***	.22***
6. Knowing-Why	3.73	3.60	0.49	0.59	-.09	.09	.10	.25***	-.03	----	.54***	.29***	.41***	.41***	.35***
7. Knowing-How	4.08	3.70	0.53	0.66	.01	.29***	.28***	.45***	.05	.42***	----	.29***	.42***	.47***	.37***
8. Knowing-Whom	3.27	3.20	0.70	0.75	.32***	.27***	.18**	.19***	.14*	.25***	.32***	----	.44***	.38***	.56***
9. Contribution to Org Culture	3.97	3.77	0.42	0.54	.12*	.14	.08	.45***	-.01	.31***	.43***	.35***	----	.71***	.65***
10. Contribution to Org Capabilities	3.95	3.81	0.43	0.49	.15**	.14**	.08	.33**	.15**	.32***	.41***	.41***	.64***	----	.63***
11. Contribution to Org Connections	3.64	3.58	0.51	0.62	.24***	.19***	.08	.27***	.19***	.33***	.29***	.55***	.50***	.67**	----

Note: Police (P) employees in the lower diagonal (N=194), and for Municipality (M) employees in the upper diagonal (N=239); listwise deletion of missing values

* $p < 0.1$ (2-tailed).

** $p < 0.05$ (2-tailed).

*** $p < 0.01$ level (2-tailed).

Results

Table 2.2 presents the correlations among the variables under study for the two organizations separately. As indicated from the table, there are several prominent associations, which we refer to first. In particular, it appears there are positive and high correlations between all of the individual career investments and their contributions to organization's core competencies in both organizations. Particularly, there are apparent correlations between knowing-why and contribution to organizational culture ($r_{police} = .31$; $r_{municipality} = .41$; $p < 0.01$), knowing-how and contribution to organizational capabilities ($r_{police} = .41$; $r_{municipality} = .47$; $p < 0.01$), and between knowing-whom and contribution to organizational connections ($r_{police} = .55$; $r_{municipality} = .56$; $p < 0.01$).

Table 2.2 provides also evidence for the associations of variables as suggested in hypotheses 2-3 (between career capital, personality traits and organizational career support). Worth noting here is the positive and high correlation of Openness to experience and Extraversion with knowing-why, -how and -whom. However, it appears there are prominent differences between the two organizations concerning Conscientiousness. More specifically, Conscientiousness in Police has significant correlations with knowing-how ($r_{police} = .28$; $p < 0.01$) and knowing-whom ($r_{police} = .18$; $p < 0.05$).

Differences between the Police and Municipality appear as well with regard to the association of organizational career support and –career capital. It is quite noticeable that while career support in Police has a relatively low correlation only with knowing-whom ($r_{police} = .14$; $p < 0.1$), career support in Municipality positively and highly correlates with all three ways of knowing ($r_{municipality} = .16, .23, .17$ respectively; $p < 0.01$). These results may suggest that the employees in Municipality perceive their employer's HR practices as more related to their career capital development, compared to the employees of Police.

Direct relationships tests (Hypotheses 1-3)

Tables 2.3 and 2.4 show the standardized OLS regression results analyses testing the direct relationships in our research model. Significant variance is explained in contributions to organizational culture ($F = 34.07$; $R^2 = .19$; $p < .01$), contributions to organizational capabilities ($F = 38.80$; $R^2 = .21$; $p < .01$), contributions to organizational connections ($F = 68.82$; $R^2 = .32$; $p < .01$), knowing-why ($F = 15.10$; $R^2 = .17$; $p < .01$), knowing-how ($F = 33.35$; $R^2 = .32$; $p < .01$), and knowing-whom ($F = 16.77$; $R^2 = .19$; $p < .01$). Consistent with our correlation results, the regression results in table 2.3 suggest that knowing-why is positively associated with contribution to organizational culture ($b = .40$; $p < .01$), knowing-how is positively associated with contribution to organizational capabilities ($b = .46$; $p < .01$), and knowing-whom is positively associated with contribution to organizational connections ($b = .57$; $p < .01$). Thus, **confirming our first set of hypotheses (1a, 1b, 1c)**. The results also show that organizational differences are only found with regard to individuals' contributions to organizational culture in such a way that Police employees perceive their contributions higher than the employees of Municipality ($b = -.19$; $p < .01$).

In table 2.4 we further see evidence for our hypotheses concerning direct relationship between personality traits, organizational career support and career capital. Particularly, according to the standardized regression coefficients Extraversion and Openness to experience positively associated with knowing-why ($b = .15, .24$ respectively; $p < .01$), knowing-how ($b = .21, .30$ respectively; $p < .01$), and knowing-whom ($b = .23$ for both; $p < .01$). Contrary to our expectations, Conscientiousness is positively associated only to knowing-how ($b = .14$; $p < .01$). Thus, the results provide **full confirmation for hypothesis 2b**, and **partial confirmation for hypotheses 2a and 2c**. Furthermore, Organizational career support appears to be positively associated with knowing-how ($b = .13$; $p < .01$) and knowing-whom ($b = .17$; $p < .01$), **partially confirming hypothesis 3**. In these hypotheses

sets we also identify differences between the two samples; Police employees score higher on investments in knowing-how ($b = -.21; p < .01$) and knowing-whom ($b = -.16; p < .01$) in comparison to Municipality employees. Age is found to have negative association with contributions to organizational connections ($b = -.12; p < .01$), knowing-why ($b = -.23; p < .01$) and knowing-how ($b = -.25; p < .01$), and positively associated with knowing-whom ($b = .25; p < .01$).

Table 2.3 Results of regression analysis for direct relationships between career capital and contributions to core competencies

Dependent Variables	Contributions to org culture	Contributions to org capabilities	Contributions to org connections	Hypothesis confirmation
Hypotheses:				
1a, 1b, 1c				
Step 1:				
Age	-.03	-.04	-.01	
Organization	-.19**	-.12*	-.05	
R²	.04**	.02**	.00	
Step 2:				
Age	.08	0.4	-.12**	
Organization	-.19**	-.02	.03	
Knowing-why	.40**			<i>Full</i>
Knowing-how		.46**		<i>Full</i>
Knowing-whom			.57**	<i>Full</i>
R²	.19**	.21**	.32**	

Note: Values are based on the entry of all variables listed on that step. Regression coefficients are standardized values.

* $p < .05$.

** $p < .01$.

Table 2.4 Results of regression analysis for direct relationships between personality, career support and career capital

Dependent Variables	Knowing-why	Knowing-how	Knowing-whom
Hypotheses:			
2a-2c & 3			
Step 1:			
Age	-.27**	-.18**	.19**
Organization	.00	-.22**	-.13*
R²	.07**	.11**	.03**
Step 2:			
Age	-.23**	-.13**	.25**
Organization	.02	-.21**	-.16**
Extraversion	.15**	.21**	.23**
Conscientiousness	.03	.14**	.03
Openness to Experience	.24**	.30**	.23**
Org Career Support	.04	.13**	.17**
R²	.17**	.32**	.19**

Note: Values are based on the entry of all variables listed on that step. Regression coefficients are standardized values.

* $p < .05$.

** $p < .01$.

Mediation tests (Hypotheses 4a and 4b)

The set of hypotheses 4a to 4b concern the mediation effects, testing for the indirect effects of personality traits and organizational career support on organizational core competencies through the investments in knowing-why, -how and -whom separately⁵ (Tables 2.5-2.7). First, in Table 2.5 we can see that knowing-why mediates the relationships between personality traits extraversion (full: $b = .03$; $p = .47$) and Openness to experience (partial: $.40$; $p < 0.01$) to individual contribution to organizational culture. Further, Table 2.6 shows that knowing-how mediates the relationships between personality traits extraversion (full: $b = .04$; $p = .30$), Conscientiousness (partial: $b = -.01$; $p < 0.05$) and Openness to experience (partial: $b = .28$; $p < 0.01$), and organizational career support (partial: $b = .11$; $p < 0.01$) to individual contribution to organizational capabilities. Finally, Table 2.7 shows that knowing-whom mediates the relationships between personality traits extraversion (partial: $b = .08$; $p < 0.1$) and Openness to experience (partial: $b = .12$; $p < 0.01$), and organizational career support (partial: $b = .14$; $p < 0.01$) to individual contribution to organizational connections. Contrary to our assumptions, knowing-why is not found to mediate the relationship between organizational career support and contribution to organizational culture. Our data also does not provide confirmation to the indirect effects of Conscientiousness through both knowing-why and knowing-whom on contribution to organizational culture and connections (respectively).

⁵ In our mediation analyses we included all IV's in one model for each mediator separately, so an estimate of the part of each IV's effect is relative to the other IV's in the specific model. Although such approach runs the risk that highly correlated IV's will cancel each other's effects (Hayes, 2013), table 2.2 shows that the associations among IV's in our samples are low to moderate significance, if at all.

Table 2.5 OLS regression analysis of effects on contribution to organizational culture

	B (Direct effect)	B (Indirect effect)	Test of Homogeneity	Omnibus	Mediation confirmation
Hypotheses:					
4a, 4b			1.13, $p = 0.34$	32.71***	
Controls:					
Organization	-.21***				
Age	.01*				
IV:					
Extraversion	.04	.03 ^a			<i>Full</i>
Conscientious	-.05	.01			
Openness to experience	.40***	.06 ^a			<i>Partial</i>
Organizational career support	.06	.01			
Mediator:					
Knowing-why	.23***				
DV:					
Individual contribution to culture					

Note: The coefficients are unstandardized B values. All values were tested for significance using percentile confidence intervals from 5,000 bootstrap intervals.

^a 95% confidence interval.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 2.6 OLS regression analysis of effects on contribution to organizational capabilities

	B (Direct effect)	B (Indirect effect)	Test of Homogeneity	Omnibus	Mediation confirmation
Hypotheses:					
4a, 4b			1.27, $p = 0.28$	19.58***	
Controls:					
Organization	-.12*				
Age	.00				
IV:					
Extraversion	.04	.05 ^a			<i>Full</i>
Conscientious	-.10**	.04 ^a			<i>Partial</i>
Openness to experience	.28***	.08 ^a			<i>Partial</i>
Organizational career support	.11**	.03 ^a			<i>Partial</i>
Mediator:					
Knowing-how	.23***				
DV:					
Individual contribution to capabilities					

Note: The coefficients are unstandardized B values. All values were tested for significance using percentile confidence intervals from 5,000 bootstrap intervals.

^a 95% confidence interval.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 2.7 OLS regression analysis of effect on contribution to organizational connections

	B (Direct effect)	B (Indirect effect)	Test of Homogeneity	Omnibus	Mediation confirmation
Hypotheses:					
4a, 4b			1.84, $p = 0.12$	10.15***	
Controls:					
Organization	-.06				
Age	-.01				
IV:					
Extraversion	.08*	.11 ^a			<i>Partial</i>
Conscientious	-.06	.02			
Openness to experience	.20***	.11 ^a			<i>Partial</i>
Organizational career support	.14**	.08 ^a			<i>Partial</i>
Mediator:					
Knowing-whom	.37***				
DV:					
Individual contribution to connections					

Note: The coefficients are unstandardized B values. All values were tested for significance using percentile confidence intervals from 5,000 bootstrap intervals.

^a 95% confidence interval

* $p < .05$

** $p < .01$

*** $p < .001$

There are several main points worth mentioning regarding our mediation analyses. With regard to the samples variances, differences remain in average level (of the dependent variables) between the two organizations, even when taking into account the other predictors. For example, Municipality has corrected means of contribution to organizational culture and capabilities that are .21 ($p < 0.01$) and .12 ($p < 0.05$), respectively, lower than Police. Age was found to have a marginal low significance link with contribution to organizational culture ($b = .01$; $p < 0.05$). Finally, as shown both the *omnibus* and *homogeneity of regression* post-hoc tests are satisfactory, implying that the proposed mediation model is very close to our observations. To sum up our regression mediation results provide **partial confirmation for hypotheses 4a and 4b.**

Discussion

The aim of this study is to provide better understanding of the antecedents and consequences of individuals' career capital. More specifically, we conducted a cross-sectional study among employees of two large governmental organizations to examine the relationship between individuals' career capital development, individual contribution to organizational core competencies (culture, capabilities and connections), personality traits and organizational career support. We further propose that the investments in each of the three ways of knowing act as mediators in these relationships. Following our findings we formulate several main conclusions.

First and foremost, employees' career capital is positively associated with individual contribution to organizational core competencies, namely; knowing-why and culture, knowing-how and capabilities, and knowing-whom and connections. Second, employees' career capital is positively associated with personality traits Extraversion and Openness to experience. Furthermore, investments in knowing-how and knowing-whom positively associated with organizational career support. Concerning our mediation assumptions, we

further found that knowing-why mediates the relationships between personality traits Extraversion (full) and Openness to experience (partial) to individual contribution to organizational culture. Investments in knowing-how mediate the relationships between Extraversion (full), Conscientiousness (partial) and Openness to experience (partial), and organizational career support (partial) to individual contribution to organizational capabilities. Finally, knowing-whom investments partially mediate the relationships between personality traits Extraversion and Openness to experience, and organizational career support to individual contribution to organizational connections.

With these outcomes we make several important and notable contributions to the extant management, careers and organizational behavior literature. First, this study provides primary corroboration for the unique contributions of career capital to distinct organization's core competencies. These findings confirm the fundamentals of both the three ways of knowing and organizational core competencies frameworks introduced earlier. While the two frameworks are often connected in literature (e.g., Arthur et al., 2008; DeFillippi et al., 2006), little empirical evidence exists to support the links between individual career investments and organizational core competencies (Lazarova & Taylor, 2009; Somaya et al., 2008). Our results strongly suggest that people do not see their own career development as incompatible with organizational development. Moreover, they suggest we can put to rest any fear of people investing in their career self-management at the expense of their employers (cf. Dickmann & Mills, 2010; DiRenzo & Greenhaus, 2011). Further research, quantitative (longitudinal) and qualitative, is necessary to disentangle how and to what extent contemporary employees' careers affect organizations.

Second, this study extends research on the drivers of career capital development by considering both personal characteristics and organizational practices. Specifically, we find that investments in knowing-why, knowing-how and knowing-whom are positively

associated with personality traits Openness to experience and Extraversion. These findings expand on earlier work, suggesting that being high on Openness to experience trait does not only relate to one's motivation development, but also for the development of career related skills and social capital (Eby et al., 2003). Our analyses show that this assumption holds true also for people who score high on Extraversion. This may suggest that people who are adventurous, energetic and imaginative find it important to invest in their career development. That is, Openness to experience and Extraversion contribute to personal growth in multiple domains. These results are consistent with similar ideas about the significance of proactive behavior in the contemporary knowledge economy (Chiaburu et al., 2006; De Vos, Clippelaar, & Dewilde, 2009; S. K. Parker et al., 2010).

Third, while mainly apparent for the Municipality employees, we also find positive associations between organizational career support and investments in three ways of knowing. These results contribute to the growing literature about contemporary career management. Recent studies suggest that despite the growing personal responsibility involved in career self-management, individual and organizational career management reinforce each other and are complementary, rather than substitutes (e.g., Zeitz, Blau, & Fertig, 2009). For example, Sturges and colleagues (2002) found that organizational career management activities are associated with increased career investments. Another study shows that the interaction of career capital development and organizational career management impacts career outcomes (De Vos, Dewettinck, et al., 2009). Further research is necessary to build on this dual inquiry by involving a broader range of individual and organizational constructs. In particular, it is important to examine specific HR and management practices and the role these play in shaping employees' (1) career capital development, and (2) contributions to organizational core competencies.

Fourth, we contribute to literature by taking a first step to examine career capital as a mediator between individuals' personal dispositions and the way they use HR practices, and their consequent contributions to organizational core competencies. While career scholars emphasize the importance of career capital in shaping one's success and work environment (e.g., Dickmann & Harris, 2005; Jokinen, Brewster, & Suutari, 2008; Singh et al., 2009), no study so far has considered the intervening role it may play in understating individuals' engagement at work. By conceptualizing career capital development as a mediating factor, we extend research to further explain the drivers that shape individuals' contributions to organizations, through the development of career capital.

In particular, our findings regarding personality traits suggest that these personal dispositions play role in the way people contribute to their organizations. All three ways of knowing were found to mediate the relationship between Extraversion and Openness to experience and employees' contributions to organization's core competencies. This is consistent with the research on work engagement which suggest that the challenging spirit, enthusiasm and intellectual curiosity employees bring into the organization engage others to work together and foster a productive working environment by creating their own personal resources (Bakker & Demerouti, 2008). The results of this study suggest that the mediation is rather partial in most cases. Nevertheless, the Big-Five refer to rather general, distal personal traits. Clear links may be expected with more proximal traits, such as proactivity or self-efficacy, which are specific career-types concepts and found to be related to investment in the career competencies (e.g., Eby et al., 2003; Kuijpers & Scheerens, 2006).

Moreover, our findings concerning organizational career support indicate that organizations benefit when HR practices are mainly related to knowing-how and knowing-whom investments. This is in line with recent studies that show that organizations that operate in stable and predictable environment, such as governmental organizations,

extensively invest in training, development and socialization programs. Like Police and Municipality, these organizations emphasize skill enhancement and utilize empowerment and teamwork, thus stimulate employees to invest in developing their expertise, as well as their professional networks (Toh et al., 2008). This may suggest why employees in our samples do not see the career support provided by their employers as a source for identity and motivation development (i.e. knowing-why), and thus do not perceive this support as facilitating factor for their contributions to organizational culture. More research is needed to examine different types of HR practices that focus on career motivation and insight, which in turn can shape individuals' contributions to organizational culture through investments in knowing-why.

Limitations and recommendations for future research

Like any empirical research, this study is not without limitations. We believe that by recognizing them, we inspire researchers to further address these in future research. First, our study consists of only cross-sectional data. Therefore, any inference about casual relationships should be carefully considered. Bearing in mind time as a fundamental characteristic for the definition and study of careers (Parker et al., 2009), effects of career investments, as well as of individual contribution to organizations, can only be witnessed over time. This holds true also for our mediation analyses. While we try to shed light on the way career capital acts as a mediator in the relationships between personality, organizational career support and contributions to organizational core competencies, we cannot completely rule out the possibility for other relationship constellations in our conceptual model. However, given that our operationalization of the antecedents' variables is based on established empirical research, we believe that the current model is very close to reality.

Furthermore, the post-hoc tests utilized in our mediation analyses provide confirmation for these conclusions. More specifically, the *omnibus* test is used to answer the question as whether there is evidence that our IV's (i.e. personality and organizational career

support) exert an effect on the DV (i.e. culture, capabilities, and connections), without specifying which variable in the set of IV's is responsible for the effect. It basically confirms we have at least one significant predictor in our regression analyses. The *homogeneity of regression* (referred to also as the “no interaction” assumption) tests for the possibility there is an interaction between the IV and the Mediator (i.e. knowing-why, knowing-how, and knowing-whom). According to the results in all three mediation analyses, we can conclude that it is not statistically likely that career capital acts as a moderator as well in the direct relationships. Thus, the results provide sufficient indication for the proposed empirical model. A natural follow-up would be to examine similar mediation links by employing longitudinal techniques. Longitudinal design, with at least 2 waves of data collection, can be useful not only for establishing stability across time and temporal precedence, but also for distinguishing between complete or partial mediation (Kraemer, Yesavage, Taylor, & Kupfer, 2000; MacKinnon, Fairchild, & Fritz, 2007; Maxwell, Cole, & Mitchell, 2011). Finally, longitudinal techniques would allow for testing various casual alternatives and identifying whether career capital, organizational career support and other personal factors are mediators or moderators.

Second limitation of this study concerns the reliance of self-reported data and may be subject to common method variance (Podsakoff, MacKenzie, & Podsakoff, 2012). Although we acknowledge this, we also recognize that our data reflect responses to separate scales intended to measure separate constructs⁶. We join other scholars' thoughts concerning the common method variance, which suggest that issues may be measurement related, rather than method (Doty & Glick, 1998; Spector, 2006). Nevertheless, we invite researchers to minimize these risks by collecting data in different times from other sources such as supervisors or colleagues, who can provide insights about individuals career investments.

⁶ The main constructs, career capital and individual contributions to organization's core competencies, were measured in several different occasions (including other chapters in this dissertation) and show satisfactory reliability across various samples and settings.

Another limitation concerns our statistical analysis approach. Although some research may argue that techniques such as Structural Equation Modeling (SEM; Jöreskog & Sörbom, 1993) might be superior for testing mediation models, we believe that OLS regression is an appropriate procedure given our relative small samples (Hayes, 2013). Although we acknowledge the advantages of using SEM over OLS when conducting mediation analysis, we address these potential shortcomings by constructing 95% bootstrap percentile confidence intervals for inference about indirect effects based on 5,000 bootstrap samples (Preacher & Hayes, 2004, 2008). Research has shown that this alternative is sufficiently powerful and shows less Type I error inflation in smaller samples, hence would be more appropriate for our analyses (Hayes & Scharkow, 2013; Hayes, 2009; Williams & MacKinnon, 2008). Future research may be advised to use SEM techniques to extend our study and also test for the possibility of competing models.

Final remark concerns the apparent, but not substantial, differences between the two organizations in our study. The findings show some mixed results concerning the association of personality traits, as well as of organizational career support with career capital and contributions to organization's competencies across the two samples. Both Police and Municipality are public organizations characterized with more "traditional" approaches and union representation (Toh et al., 2008). However, we are also aware that differences in these organizations might rise with relation to specific job design characteristics (e.g., autonomy, complexity, independence) (Spector, Jex, & Chen, 1995). Consequently, one's work environment could be more traditional and bureaucratic than the other. Accordingly, our results may suggest that the link between career capital and organizational resources may be contextual dependent. While we hope to control for these differences, it is beyond this study to address the applicability of this model to other professional and occupational groups. Therefore, we encourage future research to further explore individuals' career capital and

their contributions to organization's core competencies in different organizational contexts, both the private and public sectors. Beside the potential theoretical contribution, such research can minimize any discrepancies resulting from different interpretations and use of measurements (P. Parker et al., 2009).

Practical implications

Beside the theoretical implications, the results of this study offer also practical applications, in particularly for the investments in career development made by both individuals and organizations. The study offers evidence to individuals of the relevance of investing in their own career development, especially in the context of less stable work environment. Instability steams from economic turbulences that shake most of the organizations today, as well as the increasing globalization that brings higher competition on the global labor market of professionals. However, regardless of these instabilities, there is also a growing trend among individuals to work fewer hours, to pursue careers abroad, to nurture their psychological well-being and satisfaction, as well as to learn from other areas than their own field of work. In other words, individuals increasingly choose to pursue their personal work and life values.

This study looks into details at the investments contemporary employees make in their careers, and suggests how these can be addressed in a way that benefit not only them, but to their current and future employers. By investing in their three ways of knowing, individuals can improve their weaknesses and maintain their strengths. The career capital framework also provides a great tool to prepare for the next job. By identifying what one wants and how to shape his or her role at work, he or she can influence the actions to what they need. The results aspire to help individuals to better understand what they can do with their external knowledge to become more employable. Finally, this study contributes to the knowledge

about emergent ‘agent’ behavior of contemporary employees, and a better understanding of contextual factors and the extent they determine individual career choices and paths.

From an organizational point of view, the results provide a platform for managers and HR officers to develop new and more relevant alternatives to the traditional career management, which in turn could offer a more attractive environment for talented employees. Furthermore, by understating how people careers unfolds and what are the factors involved in making it successful, managers can design customized interventions for their employees. Furthermore, the relevancy of the knowledge accumulated through one’s career can provide organizations a major source for information and development. Among knowledge and skills that employees bring from outside of their organizations are also ideas that help to advance organizational innovation, and technological development. A useful model that can help to explain this contribution is the *open innovation* model (Chesbrough, 2003). It suggests that firms can commercialize external (as well as internal) ideas through channels outside of their current businesses in order to generate value for the organization. In general, results emphasize the importance of organizations to provide career support for their employees, including designing customized HR programs that allow individuals to pursue their own interests while ensuring individual contribution back to the organization.