The Relationship between Protean Career Orientation and Turnover Intention: The Mediating Role of Knowledge Hiding and the Moderating Roles of Social LMX and Economic LMX

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Abstract

Knowledge management is important for organizations to survive and succeed. This study contributes to the knowledge management literature by examining possible precursors and consequences of knowledge hiding and by studying the possible influence of context. Based on the literature about organizational commitment, a relationship between protean career orientation and turnover intention is proposed. Based on the literature about bargaining power, workplace bullying and the social exchange theory, it is expected that this relationship is mediated by knowledge hiding. Furthermore, it is suggested that social leader-member exchange (SLMX) and economic leader-member exchange (ELMX) might influence the relationship between protean career orientation and knowledge hiding. The study tested these relationships with a conditional process analysis using data from 263 respondents. The results revealed that protean career orientation is positively related to turnover intention. However, no significant relationships between protean career orientation and knowledge hiding, and knowledge hiding and turnover intention were found. Furthermore, no significant moderation effects of SLMX and ELMX on the relationship between protean career orientation and knowledge hiding were found. In this study, practical implications for organizations are offered to both mitigate and encourage turnover intention by decreasing and increasing protean career orientation, as different organizations might evaluate turnover differently.

Keywords: Knowledge hiding, protean career orientation, turnover intention, social leader-member exchange, economic leader-member exchange.

In the dynamic and competitive era of today, knowledge is crucial for an organization in order to survive and succeed (Grant, 1996; Nahapiet & Ghoshal, 1998; Yi, 2009). Therefore, knowledge management becomes more and more important. In the knowledge management literature, knowledge sharing is identified as the most vital process in knowledge management (Asrar-ul-Haq & Anwar, 2016). Consequently, organizations have taken many actions to enable knowledge sharing by employees and a lot of research has been done on knowledge sharing (Babcock, 2004; Serenko & Bontis, 2016). Despite these efforts, employees are still not always inclined to share knowledge (Bock, Zmud, Kim, & Lee, 2005). Moreover, it is even found that employees might hide knowledge (Connelly, Zweig, Webster, & Trougakos, 2012). Knowledge hiding is voluntarily hiding or withholding of knowledge that others have requested (Connelly et al., 2012). It is a construct which is distinct but related (possibly overlapping) with knowledge sharing (Peng, 2013; Serenko & Bontis, 2016). While a lot of empirical evidence exists concerning knowledge sharing, research on knowledge hiding has been dramatically underrepresented in knowledge management research. Little evidence exists of the precursors and outcomes of knowledge hiding (Serenko & Bontis, 2016). However, the little research that has been conducted implies that knowledge hiding might have harmful consequences. As it is

found that knowledge hiding might decrease creativity (Černe, Nerstad, Dysvik, & Škerlavaj, 2014), increase interpersonal distrust (Connelly et al., 2012), and negatively affect interpersonal relationships (Connelly & Zweig, 2015). In order to diminish the possible harmful consequences of knowledge hiding and facilitate knowledge transferring in organizations, it is important that it is better understood why and when individuals engage in knowledge hiding and what the exact consequences of knowledge hiding are (Škerlavaj, Connelly, Černe, & Dysvik, 2018).

To create a better understanding of the antecedents of knowledge hiding, in this study it is argued that protean career orientation might be a precursor of knowledge hiding. A protean career is a career which is self-directed by the employee and in line with his or her values. A protean career orientation indicates the individual's competencies, values and attitudes creating the protean career for the individual (Supeli & Creed, 2016). Lately, there has been increased interest in protean career orientation because more and more individuals develop a protean career orientation as a result of pressures of globalization and technological advances (Supeli & Creed, 2016). But to date, especially the positive outcomes of the protean career orientation has been measured and not the possible negative outcomes (i.e. knowledge hiding) (Currie, Tempest, & Starkey, 2006; Sullivan, 1999; Van Buren, 2003; Vardi & Kim, 2007). In this study it is argued that protean career orientation might be positively related with knowledge hiding, as knowledge hiding might increase the individual's bargaining power which helps them to pursue career goals (Peng, 2013; Lazarova & Tarique, 2005).

As described previously, little is known about the outcomes of knowledge hiding (Serenko & Bontis, 2016). In this study, voluntary turnover is seen as a possible outcome of knowledge hiding. Voluntary turnover can be defined as employees' voluntarily leaving jobs and can be very harmful for the organization as it is associated with high costs (Lee, Mitchell, Sablynski, Burton, & Holtom, 2004; Blake, 2006). Despite of the high costs turnover might cause, the relationship between turnover intention and knowledge hiding has not been empirically tested (Serenko & Bontis, 2016). Based on the workplace bullying literature, in this study it is argued that knowledge hiding is positively related with turnover intention. Like with workplace bullying, knowledge hiding might hurt victims and feelings of hurt might lead to more turnover intention (Berthelsen, Skogstad, Lau, & Einarsen, 2011; Mathisen, Einarsen, & Mykletun, 2008). As based on the social exchange theory, experiencing knowledge hiding and engaging in knowledge hiding often go together, in this study it is expected that knowledge hiding is positively related to turnover intention (Blau, 1964; Gouldner, 1960; Černe et al., 2014; Connelly et al., 2012.

In this study, it is argued that knowledge hiding acts as a mediator between protean career orientation and turnover intention. Protean career orientation is expected to be positively related with knowledge hiding, which is expected to be positively related with turnover intention. Therefore, in accordance with previous studies, a positive relationship between protean career orientation and turnover intention is proposed (Cerdin & Le Pargneux, 2014; Rowe, 2013; Supeli & Creed, 2016).

If protean career orientation increases knowledge hiding and knowledge hiding increases turnover intention, it is important to identify how to mitigate these presumably harmful effects. In this study, it is argued that the different qualities of the relationship between employee and supervisor might influence the indirect relationship between protean career orientation and turnover intention, mediated by knowledge hiding. It is relevant to study the relationships between employee and supervisor, as it can provide information about the social context in which knowledge hiding occurs and because the relationship between employee and supervisor is underexplored in the knowledge hiding literature (Xiao & Cooke, 2018). The quality of the relationship developed by supervisor and employee has been defined as leader-member exchange (LMX) (Martin, Guillaume, Thomas, Lee, & Epitropaki, 2016). LMX is proposed to have both Economic (ELMX) and Social (SLMX) aspects (Sparrowe & Liden 1997). In current research, it is chosen to measure ELMX and SLMX instead of general LMX, as a single continuum approach might be insufficient to assess both social and economic aspects of the leader-member exchange relationship (Kuvaas, Buch, Dysvik, & Haerem, 2012). In this study, SLMX and ELMX relationships between employee and supervisor are expected to determine the access to valuable resources and therefore the amount of bargaining power of the employee (Sparrowe & Liden, 2005). The ELMX and SLMX relationships between employee and supervisor might therefore explain if an employee with protean career orientation needs to engage in knowledge hiding to gain bargaining power. It is expected that ELMX will strengthen and SLMX will weaken the positive relationship between protean career orientation and knowledge hiding.

This study intends to make two major contributions to the literature. First, due to the small amount of research concerning knowledge hiding (Serenko & Bontis, 2016), this study intends to contribute to the knowledge management literature by creating more insights in potential precursors of knowledge hiding and the possible influence of context. These insights will be created by studying ELMX, SLMX and protean career orientation, which are to the best knowledge of the author, not studied in relation with knowledge hiding before. Identifying the precursors and context of knowledge hiding are important, as based on this information new

interventions can be developed to decrease knowledge hiding in organizations. Second, this study intends to contribute to the literature about turnover intention. By studying knowledge hiding and protean career orientation as potential precursors of turnover intention, more insights can be provided in ways how to retain or how to let go employees. Besides that, the relationship between turnover intention and knowledge hiding has not been empirically tested before (Serenko & Bontis, 2016).

Concluding, the following research questions will be investigated in this study:

1. To what extent does protean career orientation impact turnover intention, and to what extent is this relationship mediated by knowledge hiding?

2. To what extent do SLMX and ELMX moderate the relationship between protean career orientation and knowledge hiding?

Theoretical Framework

Protean career orientation and turnover intention

Protean career can be characterized as "focusing on subjective career success, through self-directed behavior" (Briscoe, Hall, & DeMuth, 2006, p. 30). In the literature of career management, two types of attitudes related to this career have been defined: self-directed and values driven. These two types of attitudes are related but conceptually distinct (Briscoe & Hall, 2006). Employees with a protean career orientation are driven to self-direct their careers in line with their own values (instead of the values of the organization for example) (Hall, 1996).

As individuals with a protean career orientation focus more on their own values than on the values of the organization, they are less committed to the organization in terms of time and emotion in comparison with individuals with a more traditional career orientation (Supeli & Creed, 2016). This is supported by empirical evidence which found that employees who pay more attention to personal advancement, rather than the interests of the organization, and whose personal career goals are different from the organizational goals, have less affective organizational commitment (Feldman & Weitz, 1991). Organizational commitment is negatively related with turnover intention (Tarigan & Ariani, 2015). As individuals with high protean career orientation have less organizational commitment and less organizational commitment is related with more turnover intention, it can be argued that protean career orientation is positively related with turnover intention. This is supported in a study of Chay and Aryee (1999), who found that careerist orientation (similar to protean career orientation) was negatively related to organizational commitment and positively related with turnover intention.

In accordance with this, previous studies found a positive relationship between career advancement and a desire to change jobs, especially when personal goal attainment is not supported by the organization (Feldman & Weitz, 1991; Briscoe & Finkelstein, 2009). Besides that, a positive relationship is found between protean career orientation and job search activity (Waters, Briscoe, Hall, & Wang, 2014). Furthermore, Hall (2004) found that protean career orientation is correlated with organizational mobility. And a few studies found a positive relationship between protean career orientation and intention-to-quit the organization (Cerdin & Le Pargneux, 2014; Rowe, 2013; Supeli & Creed, 2016). Therefore, in this study a positive relationship between protean career orientation and turnover intention is expected. This leads to the following hypothesis:

H1: Protean career orientation is positively related with turnover intention.

Protean career orientation and knowledge hiding

Individuals with a protean career orientation seek to drive their own life, career progress and development (Supeli & Creed, 2016). They strive for psychological success (Hall, 2004). A sense of psychological success is likely to be achieved when an individual sets a challenging, personally meaningful goal and tries to succeed in attaining this goal (Lewin, 1936; Locke, 1990; Locke & Latham, 1990). To pursue career goals, individuals need bargaining power (Lazarova & Tarique, 2005). Having control over knowledge is the most important factor influencing the bargaining power of the individual within an organization (Peng, 2013). Moreover, the possession of specialized knowledge is one of the key sources of bargaining power (Bacharach & Lawler, 1980; Mechanic, 1962; Foss & Pedersen, 2004; Peng, 2013). Therefore, it can be argued that individuals with protean career orientation can utilize their knowledge to gain bargaining power and hence facilitate their career moves.

As having control over knowledge is important for the position and bargaining power of employees in an organization (Peng, 2013), it can be argued that employees with a protean career orientation develop a strong sense of psychological ownership over knowledge. This is supported by the psychological ownership theory. Which states that having control over a target leads to the emergence of psychological ownership (Pierce, Kostova, & Dirks, 2001; Pierce, Kostova, & Dirks, 2003). According to this theory, psychological ownership can be defined as a ‘‘state in which individuals feel as though the target of ownership or a piece of that target is ‘theirs’ (i.e. ‘It is mine!’)’’ (Pierce et al., 2001, p. 299).

Individuals experiencing psychological ownership are more likely to engage in dysfunctional behaviours to keep control over the target and to ensure that others do not control

the target (Peng, 2013). Furthermore, the endowment effect and loss aversion suggest that individuals are likely to overvalue the target over which they have possessive feelings and are therefore more likely to withhold the target (Thaler, 1980; Tversky & Kahneman, 1991). In line with this, psychological ownership is found to be positively related with knowledge hiding (Peng, 2013).

To conclude, it can be argued that individuals with a protean career orientation are more likely to engage in knowledge hiding due to feelings of psychological ownership over their knowledge. These feelings of psychological ownership might be a result of an attempt to control knowledge to increase their bargaining power which is needed to facilitate career moves, to self-direct their career and to attain personally meaningful goals. Based on the reasoning, in this study a positive relationship between protean career orientation and knowledge hiding is expected. This leads to the following hypothesis:

H2: Protean career orientation is positively related with knowledge hiding.

Knowledge hiding and turnover intention

Knowledge hiding is: "an intentional attempt to conceal or to withhold knowledge that others have requested" (Connelly et al., 2012, p. 65). The relationship between knowledge hiding and turnover intention can be explained with literature about workplace bullying as workplace bullying is related to knowledge hiding (Connelly et al., 2012). Workplace bullying can be defined as: "the systematic abuse of power, persistent and repeated actions which are indented to intimidate or hurt another person" (Smith, 1997, p. 249). Like in workplace bullying, knowledge hiding can hurt their victims as well. When an individual experiences that knowledge is hidden from him/her, this can be hurtful for the individual personally and for the relationship with their colleague (Connelly & Zweig, 2015; Černe et al., 2014). However, as opposed to workplace bullying, the intention of the knowledge hider is not always to hurt their victim (e.g. hiding knowledge to avoid hurting someone's feelings) (Connelly et al., 2012). To conclude, although knowledge hiding and workplace bullying are different concepts, they share properties (i.e. both can hurt their victim).

Drawn on the social exchange theory and the norms of reciprocity, it can be argued that experiencing knowledge hiding and knowledge hiding often go together (Blau, 1964; Gouldner, 1960). This is supported by a study of Černe et al. (2014), who found that when knowledge is hidden from an individual, he/she is likely to reciprocate via an interpersonal distrust loop by hiding knowledge from the initial knowledge hider. Thus, it can be argued that employees

experiencing that knowledge is hidden from them, might engage in knowledge hiding themselves as well (Connelly et al., 2012; Connelly & Zweig, 2015).

Employees who experience harmful, negative social interactions are more likely to leave the organization (Djurkovic, McCormack, & Casimir, 2008; Berthelsen et al., 2011). In accordance with this, empirical evidence shows that individuals experiencing workplace bullying, have greater turnover intention (Berthelsen et al., 2011; Mathisen et al., 2008). As knowledge hiding and workplace bullying share the same properties (i.e. hurting their victim), it can be expected that individuals who experience knowledge hiding, have greater turnover intention. As according to the social exchange theory and the norms of reciprocity (Blau, 1964; Černe et al., 2014), experiencing knowledge hiding and knowledge hiding often go together, in this study it is argued that engaging in knowledge hiding is related to greater turnover intention.

Based on the literature of social exchange and workplace bullying, a positive relationship between knowledge hiding and turnover intention is proposed. This leads to the following hypothesis:

H3: Knowledge hiding is positively related to turnover intention.

The mediating role of knowledge hiding

The proposed positive relationship between protean career orientation and knowledge hiding is based on theory about bargaining power (Peng, 2013). The proposed positive relationship between knowledge hiding and turnover intention is based on literature about workplace bullying and the social exchange theory (Berthelsen et al., 2011; Mathisen et al., 2008; Blau, 1964; Černe et al., 2014). Given these expected effects, a mediating role of knowledge hiding is expected. Besides that, a direct effect of protean career orientation on turnover intention is expected based on literature about organizational commitment and previous research (Feldman & Weitz, 1991; Tarigan & Ariani, 2015; Cerdin & Le Pargneux, 2014; Rowe, 2013; Supeli & Creed, 2016). This leads to the following hypothesis:

H4: The relationship between protean career orientation and turnover intention is partially mediated by knowledge hiding.

The moderating roles of ELMX and SLMX

LMX theory suggests that supervisors do not treat their employees the same way (Buch, Kuvaas, & Dysvik, 2018). Employees can have a high-quality relationship or a low-quality relationship with their supervisor. High-quality LMX is characterized by mutual trust, obligation and respect (Graen & Uhl- Bien, 1995). In the literature, these relationships are

indicated as relational and social (Kuvaas et al., 2012). Low-quality LMX is characterized by low trust, obligation and respect (Graen & Uhl- Bien, 1995). In the literature, these relationships are indicated as transactional, economic and contractual (Kuvaas et al., 2012).

LMX relationships exist of social exchange (SLMX) and economic exchange (ELMX) (Blau, 1964). In SLMX relationships, exchanges between supervisor and employee are continuous and based on feelings of mutual obligation, immediate "pay off" is needed less (Kuvaas et al., 2012). These relationships are characterized by a long-term orientation (Blau, 1964; Cropanzano & Mitchell, 2005; Cropanzano, Rupp, Mohler, & Schminke, 2001; Shore, Tetrick, Lynch, & Barksdale, 2006). In these relationships, socio-emotional aspects are important (e.g. give and take, being taken care of) (Kuvaas et al., 2012). The trust between the employee and its supervisor that the other will reciprocate is crucial (Shore et al., 2006). In ELMX relationships, exchanges between supervisor and employee are more transactional, marketplace and contractual (Kuvaas et al., 2012). These relationships do not have a long-term character and are characterized by formal differences in status, discrete agreements and motivation by self-interest (Blau, 1964; Shore et al., 2006). What one gives and what one gets should be in balance. This means that an employee only contributes more than he or she has to, if he or she exactly knows what to get in almost immediate return (Kuvaas et al., 2012).

In most previous research, low-quality LMX was used to measure economic exchange and high-quality LMX was used to measure social exchange (Goodwin, Bowler, & Whittington, 2009; Breevaart, Bakker, Demerouti, & van den Heuvel, 2015). However, Kuvaas et al. (2012) argued that a single continuum approach may be insufficient to assess both social and economic aspects of the leader-member exchange relationship. Existing literature about LMX unintentionally only measured the social exchange relationship and measured in fact the lack of a social relationship instead of the economic relationship (Bernerth, Armenakis, Field, Giles, & Walker, 2007; Kuvaas et al., 2012). Therefore, in this study it is decided to study SLMX and ELMX separately. This is supported by the study of Kuvaas et al. (2012), which proposed that SLMX and ELMX are qualitatively different concepts. Furthermore, it is proposed that SLMX and ELMX relationships are not mutually exclusive, both social and economic aspects might exist simultaneously (Buch et al., 2018), although one aspect is likely to dominate the other (Kuvaas et al., 2012). This is supported by a review of Ferris et al. (2009), which argued that economic and social aspects might exist simultaneously over different stages of the relationship. However, ELMX is more common in the initial stages and SLMX becomes more important when relationships develop (Ferris et al., 2009). Besides that, Goodwin et al. (2009) supported

this notion by proposing that economic behaviors may exist over time and remain as the relationship develops into a higher quality relationship (i.e. social exchange relationship).

In this study, it is argued that individuals with a protean career orientation might hide knowledge to increase their bargaining power (Lazarova & Tarique, 2005; Peng, 2013). However, individuals can also increase their bargaining power by being exposed to a context where they have high quality LMX relationships with their supervisor. According to the LMX theory, leaders have more valuable resources to exchange, because they are linking-pins in the organization (Graen, Cashman, Ginsburg, & Schiemann, 1977). A high-quality relationship might give the employee more power as the employee gets more access to these valuable resources (Sparrowe & Liden, 2005). Since SLMX is comparable with high quality LMX, SLMX relationships might decrease the positive relationship between protean career orientation and knowledge hiding because individuals being exposed to a context where they have SLMX relationships with their supervisor, do not need to hide knowledge to increase their bargaining power (Kuvaas et al., 2012). They already have power because of the SLMX relationship with their supervisor. Besides that, in SLMX relationships, the employee trusts that his or her supervisor reciprocates in the long-term after doing something extra (Shore et al., 2006). Consequently, employees are less likely to immediately engage in destructive behavior (i.e. knowledge hiding) when they do not get something in almost immediate return (Kuvaas et al., 2012). As a consequence, it is proposed that in SLMX relationships, the relationship between protean career orientation and knowledge hiding becomes weaker.

When employees with protean career orientation, are exposed to a context where they have ELMX relationships with their supervisors, it can be argued that they cannot increase their bargaining power by their relationship with their supervisor because their relationship is purely based on economic exchange (Kuvaas et al., 2012). Which means that extra-role behavior is only performed by the employee when he/she expects that he/she will get something in almost immediate return. As a result, supervisors might be less inclined to share valuable resources with them as the supervisor will only reciprocate when the employee does something extra (Kuvaas et al., 2012). Consequently, the employee might still be likely to engage in knowledge hiding as the supervisor will not share valuable resources until the employee does something extra while the employee is not performing extra-role behavior until he/she expects something in immediate return. Besides that, it can be argued that they might be even more likely to engage in knowledge hiding as they might see knowledge hiding as an important resource to gain bargaining power. Moreover, according to Xiao and Cooke (2018) in ELMX relationships, employees are more likely to engage in destructive behavior (i.e. knowledge hiding) when

immediate incentives (e.g. access to valuable resources) are absent (Xiao & Cooke, 2018). As a consequence, it is proposed that in ELMX relationships, the relationship between protean career orientation and knowledge hiding becomes stronger.

This leads to the following hypothesis:

H5: SLMX moderates the relationship between protean career orientation and knowledge hiding. The positive relationship is weakened under higher levels of SLMX.
H6: ELMX moderates the relationship between protean career orientation and knowledge hiding. The positive relationship is strengthened under higher levels of ELMX.

Moderated mediation

Based on previous hypothesis, a relationship between protean career orientation and turnover intention, mediated by knowledge hiding is expected. Moreover, it is proposed that SLMX and ELMX moderate this indirect effect. Therefore, a moderated mediation relationship is suggested. It is expected that under high levels of ELMX the indirect effect is more positive than under low levels of ELMX. Furthermore, it is expected that under high levels of SLMX the indirect effect is less positive than under low levels of SLMX.

This leads to the following hypothesis:

H7: The indirect effect of protean career orientation on turnover intention mediated by knowledge hiding, will be moderated by ELMX. In a way that under high levels of ELMX the indirect effect will be more positive than under low levels of ELMX
H8: The indirect effect of protean career orientation on turnover intention mediated by knowledge hiding, will be moderated by SLMX. In a way that under high levels of SLMX the indirect effect will be less positive than under low levels of SLMX.

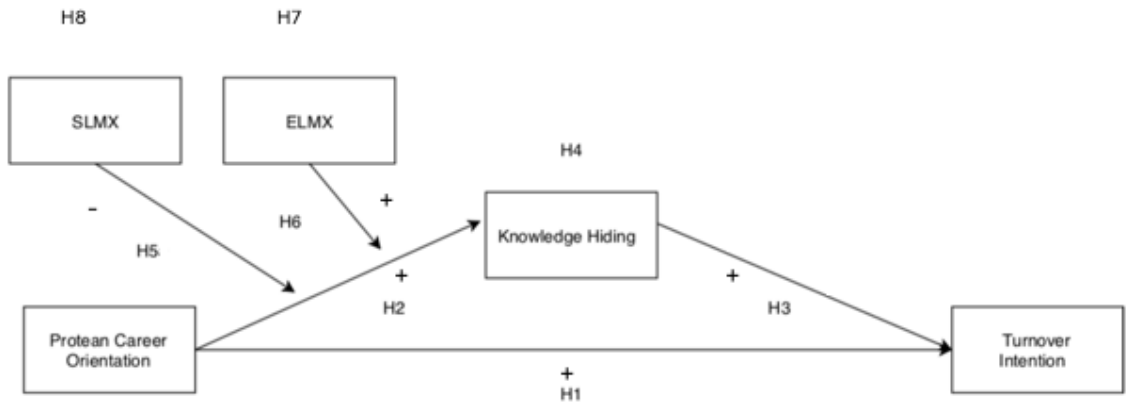

Figure 1. Conceptual model

Method

Research design

The conceptual model was tested by a cross-sectional study with an explanatory nature. In the study, the model described in Figure 1 was tested. The quantitative data were collected by online questionnaires. The questionnaire exists of multiple scales, to serve five master theses, all with knowledge hiding as main subject. This study only focused on the scales of turnover intention, knowledge hiding, protean career orientation, SLMX and ELMX.

Sample

The questionnaire was distributed in 46 teams within 24 organizations in the Netherlands. Since all five students approached employees by using their social network, participants were selected based on convenience sampling (Etikan, Musa, & Alkassim, 2016). The Monte Carlo Power Analysis tool, which has been developed for mediation models, was used to calculate the minimum required sample size (Schoemann, Boulton, & Short, 2017). Based on the Monte Carlo Power Analysis for Indirect Effects, when moderate correlations (.3) exist between x and m, m and y, and x and y, the minimum sample size for the indirect effect is 155 (5000 replications, 80% power, $\alpha = .05$). However, in this study the model is more complex as two moderators are included as well. Consequently, the minimum sample size required for this study should be higher. The students approached 359 employees, of which 263 responded. This resulted in a response rate of 73.26 %. 51.5% of the respondents were male, 47.2% of the respondents were female and 1.3% did not reveal their gender. The average age was 41.73 years ($SD = 12.93$). The youngest age measured was 21 years and the oldest age measured was 66 years. The majority of the respondents (43.8%) had a higher education degree. The organizational tenure was on average 11.35 years ($SD = 11.61$). In Table 1, a numerical overview of the demographic statistics can be found.

Table 1

The demographic characteristics of the sample, consisting of: N, mean, standard deviation and percentages.

sample.

Characteristics		N	%	M	SD
Age (years)		233		41.73	12.93
Organizational tenure		233		11.35	11.61
Gender		230			
	Male	120	51.50		
	Female	110	47.20		
Education		230		3.89	.82
	Elementary				
	Basic	10	4.30		
	Middle	62	26.60		
	Higher	102	43.80		
	Academic	56	24.00		

Instruments

The questionnaire exists of 95 items over nine scales, see Appendix A. The scales are developed and tested in previous research. The scales have Cronbach's α between $.7 \leq \alpha \leq .9$, which is in the literature defined as 'good' (George & Mallery, 2003). After data collection, a reliability analysis was conducted in IBM SPSS Statistics 24 by measuring Cronbach's alpha to check the internal consistency of the different scales in this study. It was found that the scales in present research have Cronbach's α between $.7 \leq \alpha \leq .9$, which can be defined as 'good', and Cronbach's α higher than .9, which can be defined as 'excellent' (George & Mallery, 2003). As the questionnaires were distributed in organizations in the Netherlands, a translation back translation procedure was used to translate the questionnaire into Dutch (Brislin, 1970).

Protean career orientation was measured using a 14-item scale, consisting of two subscales: self-directed and value-driven. The scales are developed by Briscoe et al. (2006). A sample item of the self-directed scale is: 'I am in charge of my own career'. A sample item of the value-driven scale is: 'I'll follow my own guidance if my company asks me to do something that goes against my values'. The questions were assessed with a five-point Likert scale ranging

from (1) ‘to little or no extent’ to (5) ‘to a great extent’. The study of Briscoe et al. (2006) reported a Cronbach’s alpha of .74. Current study reported a Cronbach’s alpha of .80.

Knowledge hiding was measured using a 12-item scale, developed by Connelly et al. (2012). All items start with the preface sentence: ‘Please think of a recent episode in which a specific co-worker requested knowledge from you and you declined to share your knowledge or expertise with him/her or did not give all of the information needed’. In this instance I…’. A sample item is: ‘Agreed to help him/her but never really intended to’. Responses were made on a seven-point Likert scale, ranging from (1) ‘not at all’ to (7) ‘to a very great extent’. Černe et al. (2014) reported a Cronbach’s alpha of .89. Current study reported a Cronbach’s alpha of .92.

Turnover intention was measured using a two-item scale. The scale was developed in the study of Boroff and Lewin (1997). A sample item is: ‘I am seriously considering quitting my current employer for an alternative employer’. Responses were made on a seven-point Likert scale, ranging from (1) ‘absolutely no expressed intent’ to (7) ‘absolutely expressed intent’. In the study of Boroff and Lewin (1997), a Cronbach's alpha of .80 was reported. Current study reported a Cronbach’s alpha of .96.

ELMX and SLMX were measured using an eight-item scale, developed by Kuvaas et al. (2012). Both social and economic aspects of the LMX were measured. A sample item of the ELMX scale is: ‘The most accurate way to describe my relationship with my supervisor is that I do what I am told to do’. A sample item of a question of the SLMX scale is: ‘My relationship with my supervisor is based on mutual trust’. Responses were made on a five-point Likert scale ranging from (1) ‘strongly disagree’ to (5) ‘strongly agree’. Kuvaas et al. (2012) reported a Cronbach’s alpha of .78 for SLMX and .74 for ELMX. Current study reported a Cronbach’s alpha of .78 for SLMX and .77 for ELMX.

Control variables. In this study, there is controlled for age, gender, educational level and organizational tenure. These variables were chosen to control for as these controls are found to be stable, reliable correlates of turnover (Cotton & Tuttle, 1986). Besides that, previous studies concerning turnover intention controlled for age, gender, educational level and organizational tenure as well (Slattery & Rajan Selvarajan, 2005; Cho & Lewis, 2012). Age and organizational tenure were coded as continuous variables. Gender (1 = male, 2 = female) and educational level (1= ‘elementary’; primary school, 2 = ‘basic’; lower secondary education, 3 = ‘middle’; upper secondary education, 4 = ‘higher’; higher professional education, 5 = ‘academic’; university) were coded as categorical variables.

Procedure

The organizations were contacted by members of the thesis circle. An information letter was used to inform the contact person of the organization. In this letter, the topic, procedure and deadline of the study were explained (see Appendix B). Data collection lasted from the 17th of December 2018 until the 18th of January 2019. The data was collected online by the software program Qualtrics. When the organization approved to participate in the study, an URL to the online questionnaire was sent to the contact person of the organization or to the participants directly. The employees received an URL to the questionnaire. The participants were able to choose between the English or Dutch questionnaire. Participants could either agree or decline to participate in the research as participation was completely voluntary. The questionnaire started with a cover letter in which complete anonymity was promised and in which little insight into the study was provided.

Analysis

The data in Qualtrics were imported in IBM SPSS statistics 24. The dataset was checked for missing values. Which is important as missing values can be harmful because loss of data can lead to loss of statistical power and bias in parameter estimates (Roth, 1994). The screening revealed missing data on several variables. In accordance with Cohen and Cohen (1983), it was decided to not delete these variables but replace the missing data, as for every variable the missing data was less than 10%. Before replacing the missing data, the EM method in IBM SPSS statistics 24 was performed to check if the values were missing completely at random. The MCAR test reported a non-significant p-value ($p > .05$). Therefore, it was concluded that the values were missing completely at random. Consequently, a single imputation method was conducted to replace the missing values by predicted values, generated by a prediction equation which uses data on complete cases to predict the variable that has missing data (Fox-Wasylyshyn & El-Masri, 2005). The missing values for gender and educational level could not be replaced as these are categorical variables. It concerned four cases which were deleted by listwise deletion.

After the screening for missing values, analyses to obtain the descriptive statistics and correlations were performed. The results can be found in Table 2. Furthermore, to assess the validity of the model, regression diagnostics were used. Consequently, normality, multicollinearity, linearity, outliers and homoscedasticity were tested (Warner, 2013). No violations for multicollinearity and linearity were found in the data. However, homoscedasticity was violated. Furthermore, of all variables, only protean career orientation was normally

distributed as it had a non-significant value of Shapiro-Wilk (>.05). Some outliers were found, especially for knowledge hiding which reported 24 outliers. ELMX and SLMX reported one outlier each, and PCO reported two outliers. It was decided to keep the outliers in the dataset for two reasons. First, the outliers did not substantially influence the results. This was examined by comparing the 5% trimmed mean per variable with the mean scores per variable (Osborne & Overbay, 2004). Second, the outliers found for knowledge hiding can probably be seen as a representation of the truth. In this study, the results on the knowledge hiding scale were highly positively skewed (1.925), indicating that the majority of the observations were a little below the center and a few far above the center. This can be explained by the literature suggesting that individuals are likely to under-report knowledge hiding as this phenomenon could be perceived as socially undesirable (Connelly et al., 2012). Consequently, the outliers probably account for the truth. Therefore, all scores should be seen as valuable information and kept in the dataset.

To determine whether the means of SLMX, ELMX, protean career orientation, knowledge hiding and turnover intention are different between teams and organizations, a One-Way ANOVA was conducted in IBM SPSS statistics 24. Statistically significant differences between organizations were found for SLMX ($F(22,210) = 2.068$, $p < .01$), ELMX ($F(22,210) = 2.566$, $p < .01$), and knowledge hiding ($F(22,210) = 1.739$, $p < .05$). Statistically significant differences between teams were only found for SLMX ($F(44,178) = 1.886$, $p < .01$).

To test the discriminant validity, a confirmatory factor analysis (CFA) was conducted with SPSS AMOS24. CFA was used to test whether the measures in present research loaded onto the factors the same way they did in previous research (Brown & Moore, 2012). To assess the results, the fit index and the established guidelines of Hu and Bentler (1999) were used. The guidelines were as following: (1) standardised root mean square residual value (SRMR) values are approximately .08 or less; (2) root mean square error of approximation (RMSEA) values are approximately .06 or less; and (3) comparative fit index (CFI) and Tucker-Lewis index (TLI) values are approximately .95 or more (Hu & Bentler, 1999). The complete model was drawn in Amos. Without modification indices, the model indicated a significant chi-square ($\chi2= 1635.067$, $df = 585$, $p = .000$). All values did not indicate a good fit as the SRMR was .09, the RMSEA was .09, 90% CI [.08, .09] (PCLOSE = .00), CFI was .75 and TLI was .73. In order to improve these fit indices, the model was revised by using modification indices (Brown & Moore, 2014). More specifically, covariances to items with high modification indices in the same scale were added (Arbuckle, 2017). After revising the model and adding 17 modification indices, the chi-square remained significant ($\chi2 = 899.470$, $df = 568$, $p = .000$). The SRMR reported a value of .07 and the RMSEA was .05, 90% CI [.04, .06] (PCLOSE = .48), both

indicating a good fit. However, the CFI and TLI remained insufficient, with values of .92 and .91 respectively. The insufficient CFI can be explained by the low correlations between variables (see Table 2). As a lot of correlations between variables approach 0, less covariance exists and the CFI value is less reliable (Heene, Hilbert, Draxler, Ziegler, & Bühner, 2011). The insufficient TLI value can be explained by the complexity of the model. As the model tested in this study is complex (consisting of numerous variables), the TLI value is lower (Kenny & McCoach, 2003). Based on these arguments, it is decided to continue with the analyses, despite the insufficient CFI and TLI values. The fit indices can be found in appendix C.

Besides that, SPSS AMOS24 was used to test the data for common method bias by including a Common Latent Factor (CLF) in the model. It was assessed if the variance is a result of the instrument rather than the predispositions of the participant that the instrument attempts to reveal (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). It is recommended to control for common method bias as it might influence item validities and reliabilities, and covariation between latent constructs. The standardized regression weights of the model with and without the latent common methods variance factor, were compared (Podsakoff et al., 2003). According to Gaskin (2012), items with a difference of more than .2 in regression weights could indicate a common method bias. In this study, none of the items violated this threshold. An overview can be found in appendix D.

The conceptual model (see Figure 1) was tested through conditional process modeling with Process for SPSS release 2.16.3 by A.F. Hayes (2009, model 9) in IBM SPSS statistics 24. This program combines the mediation and moderation analysis. This program was selected because of the many options, for instance the measures of effect size for indirect effects. Furthermore, it is a simple-to-use procedure, which eliminates the need to master different methods to conduct one specific task (Hayes, 2012). To determine if the indirect effect is significantly different from 0, the bootstrapping procedure was used. The reason that the bootstrapping procedure instead of a Sobel test was used, is because the bootstrapping procedure produces more accurate results as it does not make assumptions about the shape of the sampling distribution of the indirect effect. The bootstrap confidence intervals better respect the non-normality of the sampling distribution (Hayes, 2012).

Results

Table 2 displays the sample size, mean, standard deviation and Pearson correlations of the independent, dependent and control variables. As shown in Table 2, protean career orientation is positively related with turnover intention ($r = .28$, $p < .01$). SLMX is negatively

related with ELMX (r = -.23, p < .01). ELMX is found to be positively related with knowledge hiding (r = .13, p < .05). Next to that, turnover intention is negatively related with SLMX (r = -.28, p < 0.01). As the control variables (gender, age, educational level and organizational tenure) have significant correlations with the main variables of the conceptual model, they are included in the conditional process analysis.

PROCESS

In Table 3, the results of the conditional process analysis are displayed. The output can be found in Appendix E. Table 3 presents the unstandardized regression coefficients of the predictors on knowledge hiding (model 1) and turnover intention (model 2). Model 1 (R^2 = .15, p < .01) and model 2 were both significant (R^2 = .14, p < .01).

Considering the hypothesis, the first hypothesis proposed that protean career orientation is positively related to turnover intention. Employees with more protean career orientation have higher turnover intention. As can be seen in model 2, this relationship is significant (b = 1.18, p < .01). Therefore, this study provides support for the direct, positive relationship between protean career orientation and turnover intention.

Hypothesis 2 stated that protean career orientation is positively related with knowledge hiding. Employees with more protean career orientation are more likely to engage in knowledge hiding. As can be found in model 1, this study does not provide support for this relationship (b = .05, p > .05). Hence, hypothesis 2 is rejected.

Hypothesis 3 proposed that knowledge hiding is positively related to turnover intention. Employees who are more likely to engage in knowledge hiding have higher turnover intention. The relationship is not supported (b = .04, p > .05), see model 2. Hypothesis 3 is rejected.

Besides that, hypothesis 4 states that the relationship between protean career orientation and turnover intention is mediated by knowledge hiding. Based on the fact that no support is found for the relationships between protean career orientation and knowledge hiding, and between knowledge hiding and turnover intention, mediation is not likely. Furthermore, the bootstrap results for the conditional indirect effect of protean career orientation on turnover intention when both moderator values are 0, confirms this by showing a non-significant result (b = .00; CI 95% [-.02, .06]). Consequently, hypothesis 4 is rejected.

Furthermore, hypothesis 5 proposed that SLMX moderates the relationship between protean career orientation and knowledge hiding. The positive relationship is expected to be weakened under higher levels of SLMX. After considering the interaction term between protean

career orientation and SLMX in model 1, no support is found for this hypothesis (b = .17, p > .05).

Hypothesis 6 proposed that ELMX moderates the relationship between protean career orientation and knowledge hiding. The positive relationship is expected to be strengthened under higher levels of ELMX. After considering the interaction term between protean career orientation and ELMX in model 1, no support is found for this hypothesis (b = .09, p > .05). Furthermore, the bootstrap results for the conditional indirect effect of X on Y also indicated a non-significant effect regarding moderation. At all levels of SLMX and ELMX (- 1 SD, 0 SD, + 1 SD) the effects were found to be non-significant. Hence, hypothesis 5 and hypothesis 6 are rejected.

Finally, hypothesis 7 and hypothesis 8 state that the indirect effect of protean career orientation on turnover intention mediated by knowledge hiding, will be moderated by ELMX and SLMX. In a way that under high levels of ELMX the indirect effect will be more positive than under low levels of ELMX and under high levels of SLMX the indirect effect will be less positive than under low levels of SLMX. As neither mediation, nor moderation was found, moderated mediation is not likely. Furthermore, the index of moderated mediation confirms this by showing for both ELMX (b = .00; CI 95% [-.04, .10]) and SLMX (b = .01; CI 95% [-.04, .12]) a non-significant result. Hence, hypothesis 7 and hypothesis 8 are rejected.

Considering the control variables, in model 1 can be found that age was significantly related to knowledge hiding (b = -.02, p < .01), which means that older people are less likely to engage in knowledge hiding. Educational level was significantly related to knowledge hiding as well (b = .17, p < .05) implying that higher educated employees are more likely to engage in knowledge hiding. In model 2 can be found that organizational tenure was significantly related with turnover intention (b = -.03, p < .05). Thus, employees with low organizational tenure have more turnover intention than employees with high organizational tenure.

Table 2

N, Means, Standard Deviations, and Correlations

Variable	N	Mean	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Protean career orientation	233	3.61	.48	(.80)								
2. Knowledge hiding	233	1.50	.81	.06	(.92)							
3. ELMX	233	2.50	.76	-.13	.13*	(.77)						
4. SLMX	233	3.56	.66	-.02	-.12	-.23**	(.78)					
5. Turnover intention	233	2.68	1.88	.28**	.06	.12	-.28**	(.96)				
6. Gender [a]	230			-.16*	-.06	-.02	-.11	-.01	-			
7. Age	233	41.73	12.93	-.08	-.29**	-.06	-.07	-.17*	-.12	-		
8. Educational level [b]	230	3.90	.82	.22**	.22**	-.17**	-.08	.02	-.06	-.27**	-	
9. Organizational tenure	233	11.35	11.61	-.10	-.18**	-.02	-.13	-.23**	-.03	.68**	-.23**	-

Note: Cronbach's Alphas are on the diagonal in parenthesis.

[a] Gender, 1 = male, 2 = female.

[b] Educational level, 1 = 'elementary'; primary school, 2 = 'basic'; lower secondary education, 3 = 'middle'; upper secondary education, 4 = 'higher'; higher professional education, 5 = 'academic'; university.

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 3

Conditional direct and indirect effects of protean career orientation on turnover intention, mediated by knowledge hiding, and moderated by SLMX and ELMX

Predictor variable		*B*	*SE*	*t*	R^2
*Model 1: F(9, 219) = 3.46***					.15**
Main effect on the mediator variable: Knowledge hiding					
Protean career orientation		.05	.12	.42	
ELMX		.13	.09	1.48	
Protean career orientation x ELMX		.09	.18	.49	
SLMX		-.13	.10	-1.32	
Protean career orientation x SLMX		.17	.15	1.16	
Control variables					
	Gender	-.13	.11	-1.32	
	Age	-.02**	.01	-3.16	
	Organizational Tenure	.01	.01	.45	
	Educational Level	.17*	.08	2.23	
*Model 2: F(6, 222) = 6.23***					.14**
Main effect on the dependent variable: Turnover intention					
Protean career orientation		1.18**	.28	4.20	
Knowledge hiding		.04	.16	.23	
Control variables					
	Gender	.12	.24	.49	
	Age	-.01	.01	-.19	
	Organizational Tenure	-.03*	.01	-2.29	
	Educational Level	-.21	.16	-1.25	

Moderated Mediation Analysis

Bootstrap results for conditional indirect effect of protean career orientation on turnover intention at values of the moderators (SLMX and ELMX)

Boot indirect effect	SLMX	ELMX		Boot SE	LL95%CI	UL95%CI
	-.66 (-1SD)	-.76 (-1SD)	-.01	.04	-.13	.04
	.00 (0SD)	-.76 (-1SD)	-.00	.02	-.05	.03

	.66 (+1SD)	-.76 (-1SD)	.00	.03	-.03	.09
	-.66 (-1SD)	.00 (0SD)	-.00	.03	-.08	.03
	.00 (0SD)	.00 (0SD)	.00	.02	-.02	.06
	.66 (+1SD)	.00 (0SD)	.01	.04	-.04	.13
	-.66 (-1SD)	.76 (+1SD)	.00	.03	-.07	.07
	.00 (0SD)	.76 (+1SD)	.00	.04	-.04	.13
	.66 (+1SD)	.76 (+1SD)	.01	.06	-.06	.20
Index of moderated mediation		SLMX	.01	.04	-.04	.12
		ELMX	.00	.03	-.04	.10

Note: N = 229. Number of bootstrap samples for bias corrected bootstrap confidence intervals = 5000. LL, lower limit; CI, confidence interval; UL, upper limit. $p< 0.05$*, $p < 0.01$**

Additional analysis

The moderation effects of SLMX and ELMX can be studied separately which is worthwhile as in moderated mediation it is often difficult to detect interaction effects (Fairchild & MacKinnon, 2009). In social science, small effect sizes are frequently observed and therefore power is often low to detect interaction effects (Aiken & West, 1991). As moderated mediation models involve several interaction terms and estimation of indirect effects, detecting interaction effects is even more difficult (Fairchild & MacKinnon, 2009). Therefore, in this study Hayes' PROCESS model 2 (Hayes, 2009) has been conducted to test the moderating roles of ELMX and SLMX on the relationship between protean career orientation and knowledge hiding. However, the interaction between protean career orientation and ELMX (.09, $p > .05$) and between protean career orientation and SLMX (.17, $p > .05$) remained non-significant. To conclude, no moderation effects of ELMX and SLMX were found when testing the moderation part separately.

In terms of power, the mediation effect was studied separately as well. Hayes' PROCESS model 4 (Hayes, 2009) has been used. However, the relationship between protean career orientation and knowledge hiding ($b = .01$, $p > .05$), and the relationship between knowledge hiding and turnover intention ($b = .04$, $p >.05$) remained non-significant. The relationship between protean career orientation and turnover intention remained significant ($b = 1.19$, $p < .01$). To conclude, no mediation was found when testing mediation separately.

Discussion

The aim of this research was to investigate the relation between protean career orientation and turnover intention. Based on theory about organizational commitment and previous research (Feldman & Weitz, 1991; Tarigan & Ariani, 2015; Cerdin & Le Pargneux, 2014; Rowe, 2013; Supeli & Creed, 2016), a positive relationship was proposed between protean career orientation and turnover intention. Moreover, based on the social exchange theory (Blau, 1964; Černe et al., 2014), literature about workplace bullying (Berthelsen et al., 2011; Mathisen et al., 2008) and literature about bargaining power (Peng, 2013), we expected that this relationship was mediated by knowledge hiding. Furthermore, based on the literature about LMX (Graen et al., 1977; Sparrowe & Liden, 2005), SLMX and ELMX (Kuvaas et al., 2012), moderating roles of SLMX and ELMX on the relationship between protean career orientation and knowledge hiding were expected.

The results provided support for the positive relationship between protean career orientation and turnover intention. However, relationships between protean career orientation and knowledge hiding, and knowledge hiding and turnover intention were not found. Consequently, the mediating role of knowledge hiding was not supported. Besides that, the moderating effects of ELMX and SLMX were not supported.

Theoretical implications

This study intended to make two major contributions to the literature. First, this study contributes to the literature about turnover intention as two potential precursors of turnover intention are explored. In this study, protean career orientation as possible precursor of turnover intention was examined. It was expected that protean career orientation is positively related with turnover intention as protean career orientation is negatively related with organizational commitment, which is negatively related with turnover intention (Supeli & Creed, 2016; Tarigan & Ariani, 2015). In accordance with a few earlier studies, in this study a positive relationship between protean career orientation and turnover intention was found (Cerdin & Le Pargneux, 2014; Rowe, 2013; Supeli & Creed, 2016). Consequently, this study confirms the existing literature.

Furthermore, this study adds to the literature about turnover intention by examining knowledge hiding as possible precursor of turnover intention. Drawing on the literature about workplace bullying, it was argued that knowledge hiding shares properties of workplace bullying as both incidents might hurt the victim (Connelly & Zweig, 2015; Černe et al., 2014; Smith, 1997). As workplace bullying is positively related to turnover intention (Berthelsen et

al., 2011; Mathisen et al., 2008), a positive relationship between knowledge hiding and turnover intention was expected. However, a non-significant relationship between knowledge hiding and turnover intention was found. This can be explained by the reasoning that employees who engage in knowledge hiding, as opposed to workplace bullying, do not always intent to hurt their victim. Although knowledge hiding has overlap with aggression (deviant behavior with intent to harm), these are separate behaviors (Connelly et al., 2012). Instead of hurting their victim, individuals might be motivated to hide knowledge for different reasons (e.g. instrumental, prosocial, laziness). They might hide knowledge to protect the other party's feelings, protect the interests of a third party or preserve confidentiality (Connelly et al., 2012). Consequently, the victim of knowledge hiding might feel less harmed than expected and therefore experiencing knowledge hiding might not always increase turnover intention. Based on the social exchange theory (Blau, 1964), it can be argued that experiencing knowledge hiding often goes together with engaging in knowledge hiding and therefore it can be argued that engaging in knowledge hiding might not always lead to higher turnover intention. Moreover, prosocial behavior is even found to be negatively related to turnover intention (George & Bettenhausen, 1990). To conclude, employees engaging in knowledge hiding may not be more likely to leave the organization which might be the reason why no relationship between knowledge hiding and turnover intention was found.

Second, this study contributes to the fairly emergent field of knowledge hiding as it examines a possible precursor and the social context of this concept. In this study, protean career orientation as possible antecedent of knowledge hiding was examined. Moreover, a relationship between protean career orientation and knowledge hiding was expected. In this study, bargaining power is proposed as a way for employees with protean career orientation to self-direct their career in line with their values (Supeli & Creed, 2016; Lazarova & Tarique, 2005), and might be achieved by knowledge hiding (Peng, 2013). However, the relationship between protean career orientation and knowledge hiding was not found. The non-significant relationship between protean career orientation and knowledge hiding can be explained by an alternative way to self-direct one's career: the use of continuous learning. In addition to bargaining power, continuous learning might be a way for employees with protean career orientation to self-direct their career by adapting to performance and learning demands (Segers, Inceoglu, Vloeberghs, Bartram, & Henderickx, 2008). According to Hall and Mirvis (1996), employees with protean career orientation are continual learners and view their career as series of learning cycles. Every time when employees go through such a cycle, they have to adapt to performance and learning demands. Sources which are important for continuous learning are

the individuals (e.g. customers, colleagues, supervisors) in the work environment of the employee (Hall, 1996). As a consequence, it can be argued that for employees with protean career orientation, learning from others is important. For employees with protean career orientation, knowledge hiding can therefore be detrimental. This can be explained by the social exchange theory (Blau, 1964). According to the social exchange theory, if an employee hides knowledge to a colleague, the colleague will be more likely to hide knowledge to the initial employee as well. The paradox between gaining bargaining power and continuous learning might explain why the positive relationship between protean career orientation and knowledge hiding was not found.

Besides studying a potential precursor of knowledge hiding, this study contributes to the knowledge management literature by studying the social context of knowledge hiding as well. More specifically, the relationship between employee and supervisor is studied, which has not yet been studied in relation with knowledge hiding (Xiao & Cooke, 2018). In this study, the relationship between employee and supervisor was examined by studying the moderating roles of SLMX and ELMX on the relationship between protean career orientation and knowledge hiding. However, no moderating effects of SLMX or ELMX were found. As knowledge hiding occurs most often in co-worker dyads (Connelly et al., 2012), it can be argued that the relationship between employees might be more important in relation with knowledge hiding than the relationship between employee and supervisor. In the study of Černe et al. (2014) it is found that social exchange between employees, although not in relation with protean career orientation, has an effect on knowledge hiding. Furthermore, Connelly et al. (2012) stated that the motivations for knowledge hiding presumably lie in the interpersonal relationships of the employee and in the nature of previous relationships with co-workers. Hence, it can be argued that it is the social exchange relationship between employees which influences the relationship between protean career orientation and knowledge hiding, instead of the relationship between employee and supervisor. Which could have resulted in the fact that no moderating effects of SLMX and ELMX were found.

Limitations and suggestions for future research

When interpreting the results, several limitations should be taken into consideration. In this study, a cross sectional research design was used as a consequence of time and budget restrictions. A limitation of this design is that no inferences about causality can be made as all variables are measured at the same time (Levin, 2006). Future research might make use of a longitudinal study, as this type of study is able to detect causal relationships and studies change

over time (Menard, 2002). For future research a longitudinal design is recommended with the minimum of three repeated measures for the same variables with an interval of six months (Ployhart & Vandenberg, 2010). Three is the minimum number of repeated measures required as two are insufficient for two reasons. First, two measurements result in less reliability of the study as an increase in 'items', results in an increase in reliability (Willett, 1989). Second, two measurements make it impossible to determine the pattern of change over time as they are by default linear (i.e. straight line) (Rogosa, 1995).

Furthermore, the measurement of knowledge hiding might be a possible constraint as it requests respondents to think of a single episode in which he or she declined to share knowledge or did not give all the information needed. It can be argued that it is not one specific situation but the repetition of knowledge hiding situations which makes the employee want to leave the organization. As a consequence, in this study it might have been difficult to find support for the relationship between knowledge hiding and turnover intention. Therefore, to fully understand the relationship between knowledge hiding and turnover intention, it is worthwhile to examine if knowledge hiding keeps occurring and if the number of occurrences is related to turnover intention. To examine this, a longitudinal study as described above is recommended.

Another constraint of this study is that it did not consider knowledge hiding as a multidimensional construct (Connelly et al., 2012). It might be worthwhile to study if different types of knowledge hiding, which are a result of different intentions, have different consequences (i.e. turnover intention) as well. Connelly et al. (2012) identified three types of knowledge hiding: playing dumb, evasive hiding and rationalized hiding. It was argued that rationalized hiding is associated with prosocial intentions (Connelly et al., 2012). Therefore, it can be argued that this concept might be negatively related with turnover intention. Evasive hiding was argued to be related with less positive intentions (Connelly et al., 2012) and therefore it can be argued that this concept might be more positively related with turnover intention. It was proposed that in playing dumb, the intentions might be less apparent (Connelly et al., 2012) and therefore no relationship between this concept and turnover intention could be expected.

As in this study, the relationship between protean career orientation and turnover intention is proven, future research can focus on ways how to weaken this relationship. One possible factor which could act as a moderator is person-organization fit (P-O fit). P-O fit is the compatibility between employee and organization on certain characteristics (e.g. values, goals, traits) (Silva, Hutcheson, & Wahl, 2010). Employees with protean career orientation want to self-direct their career in line with their own values, more than the values of the organizational

(Hall, 1996) which makes them less committed to the organization (Supeli & Creed, 2016) and more likely to leave the organization (Tarigan & Ariani, 2015). However, when their personal values are in line with the organizational values (high P-O fit) (Silva et al., 2010), it can be argued that this might not lead to a decrease in commitment and consequently might not lead to an increase in turnover intention. To conclude, a buffering role of P-O fit can be expected.

Practical implications

Based on the results found in this study, practical implications can be given to organizations. In this study was found that employees with higher levels of protean career orientation have more turnover intention. As voluntary turnover can be very harmful for organizations because it is associated with high costs (Lee et al., 2004; Blake, 2006), organizations might want to find ways to decrease the protean career orientation within the organization. In the study of Hall (2004), it is argued that being 'protean' can be partly developed as a result of learning from career and life events. As the protean career orientation can be developed and is not completely innate, organizations can try to prevent this (Hall, 2004). Organizations should focus on, and facilitate traditional careers in which loyalty and organizational commitment are important (McDonald, Brown, & Bradley, 2005). Instead of giving the employee freedom to self-direct his/her career, the organization should take care of the career of the employee. The organization can do this by rewarding hard work and loyalty with increased seniority and higher salary (McDonald et al., 2005).

Nevertheless, it can be argued that not every organization worries about turnover. Due to globalization, organizations have to respond to rapid market changes and therefore need to be flexible (Garrick & Usher, 2000). This undermines the traditional employment relationship between organization and employee, which changes from long-term relationships with socioemotional elements, into short-term relationships with limited involvement (Rousseau & Parks, 1993; Chay & Aryee, 1999; Rousseau, 1989). As more and more organizations have short-term relationships with their employees, these organizations might not perceive turnover as problematic. Besides that, as human talent is considered to be the most critical source of competitive advantage in today's knowledge economy (Bartlett & Ghoshal, 2002), it can be argued that these organizations prefer employees with protean career orientation as these employees are continual learners and always open for new possibilities (Hall, 2004; Lin, 2015). Consequently, these organizations might want to find ways to increase protean career orientation. In this study, two ways are proposed to increase protean career orientation in the organization. First, protean career orientation can be increased by providing trainings, which

might support career and skill development for employees (Lin, 2015). This might help employees with protean career orientation to drive their own career progress and development (Supeli & Creed, 2016). Besides that, it might attract employees with protean career orientation to the organization as employees with protean career orientation are continual learners (Hall, 2004). Second, the protean career orientation of the individual can be increased by giving employees more flexibility and autonomy. When organizations make employees fully responsible for their job, employees can make choices based on their personal values. This is important for employees with protean career orientation as they value freedom in their career and want to self-direct their career in accordance with their own personal values (Hall, 1996; Briscoe & Hall, 2006).

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Appendix A – Questions used (Dutch and English)

Protean career orientation, Dutch

Geen aan in hoeverre de volgende stellingen van toepassing zijn in uw situatie.

(1) Niet of nauwelijks, (2), (3) Enigszins, (4), (5) In sterke mate.

52. Ik geef zelf richting aan mijn loopbaan.

53. Uiteindelijk ben ik van mezelf afhankelijk om mijn loopbaan vooruit te helpen.

54. Ik ben zelf verantwoordelijk voor succes of falen in mijn loopbaan.

55. Wat mijn loopbaan betreft ben ik heel erg "mijn eigen persoon".

56. Over het algemeen heb ik een zeer onafhankelijke, zelfgestuurde loopbaan.

57. In het verleden heb ik meer op mijzelf dan op anderen vertrouwd om een nieuwe baan te vinden als dat nodig was.

58. Vrijheid om mijn eigen loopbaanpad te kiezen is een van mijn belangrijkste waarden.

59. Als ontwikkelingsmogelijkheden niet werden aangeboden door mijn bedrijf, zocht ik ze zelf.

60. Ik volg mijn eigen richtlijnen als mijn bedrijf me vraagt iets te doen dat indruist tegen mijn waarden.

61. In het verleden koos ik de kant van mijn eigen waarden toen het bedrijf me vroeg iets te doen waar ik het niet mee eens was.

62. Wat ik goed vind voor mijn loopbaan is belangrijker voor mij dan wat mijn bedrijf denkt.

63. Het maakt me niet veel uit hoe andere mensen de keuzes beoordelen die ik in mijn loopbaan maak.

64. Ik stuur mijn eigen loopbaan gebaseerd op mijn persoonlijke voorkeuren, niet op de prioriteiten van mijn werkgever.

65. Het belangrijkste voor mij is hoe ik me voel over mijn loopbaansucces, niet wat andere mensen vinden.

Protean career orientation, English

Please indicate the extent you agree with each of the statements below.

(1) To little or no extent, (2), (3) To some extent, (4), (5) To a great extent.

52. I am in charge of my own career.

53. Ultimately, I depend upon myself to move my career forward.

54. I am responsible for my success or failure in my career.

55. Where my career is concerned, I am very much “my own person”.

56. Overall, I have a very independent, self-directed career.
57. In the past I have relied more upon myself than others to find a new job when necessary.
58. Freedom to choose my own career path is one of my most important values.
59. When development opportunities have not been offered by my company, I've sought them out on my own.
60. I'll follow my own guidance if my company asks me to do something that goes against my values.
61. In the past I have sided with my own values when the company has asked me to do something I don't agree with.
62. What I think about what is right in my career is more important to me than what my company thinks.
63. It doesn't matter much to me how other people evaluate the choices I make in my career.
64. I navigate my own career, based upon my personal priorities, as opposed to my employer's priorities.
65. What's most important to me is how I feel about my career success, not how other people feel.

Turnover intention, Dutch

Geeft u alstublieft aan hoe waarschijnlijk het is dat de volgende situatie zich voordoet. De antwoordmogelijkheden variëren van (1) absoluut geen intentie tot (7) zeer sterke intentie. (1) absoluut geen intentie, (2), (3), (4) neutraal, (5), (6), (7) zeer sterke intentie.

66. Gedurende het komende jaar ga ik waarschijnlijk op zoek naar een andere baan buiten mijn huidige werkgever.
67. Ik overweeg serieus om bij mijn huidige werkgever te vertrekken en bij een andere werkgever te gaan werken.

Turnover intention, English

Please indicate how likely it is that the following situation occurs. The answer options range from (1) absolutely no expressed intent, (2), (3), (4) neither intent nor no intent, (5), (6), (7) absolutely expressed intent.

66. During the next year, I will probably look for another job outside my current employer.

67. I am seriously considering quitting my current employer for an alternative employer.

Knowledge hiding, Dutch

Denkt u alstublieft aan een recente situatie waarin een collega u om kennis verzocht en u weigerde uw kennis/expertise met hem/haar te delen of u niet al de informatie gaf die u heeft. Tijdens deze situatie...

(1) Helemaal niet, (2), (3), (4) in gemiddelde mate, (5), (6), (7) in zeer grote mate.

72. Beloofde u hem/haar te helpen zonder dat ik dit daadwerkelijk meende.
73. Beloofde u hem/haar te helpen, maar deelde ik in plaats daarvan andere informatie dan hij/zij nodig had.
74. Vertelde ik hem/haar dat ik hem/haar later zou helpen, maar bleef ik dit zo lang mogelijk uitstellen.
75. Gaf ik andere informatie dan hij/zij nodig had.
76. Deed u alsof u de kennis niet had.
77. Zei ik dat ik het niet wist, hoewel ik het wel wist.
78. Deed ik alsof ik niet wist waarover hij/zij het had.
79. Zei ik dat ik niets van het onderwerp afwist.
80. Legde ik uit dat ik het hem/haar wel zou willen vertellen, maar dat dit niet de bedoeling was.
81. Legde ik uit dat de informatie vertrouwelijk is en alleen beschikbaar voor mensen uit een bepaald project.
82. Vertelde ik hem/haar dat uw baas die kennis met niemand wilde laten delen.
83. Zei ik dat ik zijn/haar vragen niet zou beantwoorden.

Knowledge hiding, English

Please think of a recent episode in which a specific co-worker requested knowledge from you and you declined to share your knowledge or expertise with him/her or did not give all of the information needed.
In this instance I:

(1) Not at all (2), (3), (4) to a moderate extent (5), (6), (7) to a very great extent.

72. Agreed to help him/her but never really intended to.

73. Agreed to help him/her but instead gave him/her information different from what she/he wanted.
74. Told him/her that I would help him/her out later but stalled as much as possible.
75. Offered him/her some other information instead of what he/she really wanted.
76. Pretended that I did not know the information.
77. Said that I did not know, even though I did.
78. Pretended I did not know what she/he was talking about.
79. Said that I was not knowledgeable about the topic.
80. Explained that I would like to tell him/her, but was not supposed to.
81. Explained that the information is confidential and only available to people on particular project.
82. Told him/her that my boss would not let anyone share this knowledge.
83. Said that I would not answer his/her questions.

ELMX, Dutch

Geef aan in hoeverre u het eens bent met de volgende stellingen:
(1) Volledig mee eens, (2) Oneens, (3) Neutraal, (4) Eens, (5) Volledig mee eens
84. De beste manier om mijn relatie met mijn leidinggevende te omschrijven is dat ik doe wat mij verteld wordt
85. Ik doe wat mijn leidinggevende van mij verlangt, voornamelijk omdat hij of zij mijn formele baas is.
86. Mijn relatie met mijn leidinggevende is voornamelijk gebaseerd op autoriteit, hij of zij heeft het recht om beslissingen te nemen voor mij en ik doe wat mij verteld wordt.
87. Het enige wat ik daadwerkelijk van mijn leidinggevende verwacht is dat hij of zij zijn of haar formele rol als leidinggevende of baas vervult.

ELMX, English

Please indicate the extent you agree with each of the statements below.
(1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree, (5) Strongly agree
84. The most accurate way to describe my relationship with my supervisor is that I do what I am told to do.
85. I do what my supervisor demands from me, mainly because he or she is my formal boss.

86. My relationship with my supervisor is mainly based on authority, he or she has the right to make decisions on my behalf and I do what I am told to do.
87. All I really expect from my supervisor is that he or she fulfils his or her formal role as supervisor or boss.

SLMX, Dutch

Geef aan in hoeverre u het eens bent met de volgende stellingen:
(1) Volledig mee eens, (2) Oneens, (3) Neutraal, (4) Eens, (5) Volledig mee eens
88. Mijn relatie met mijn leidinggevende is gebaseerd op wederzijds vertrouwen.
89. Mijn leidinggevende heeft aanzienlijk in mij geïnvesteerd.
90. Ik probeer rekening te houden met het belang van mijn leidinggevende omdat ik ervan op aan kan dat mijn leidinggevende zorg draagt voor mij.
91. De dingen die ik in mijn huidige werk doe dragen bij aan het aanzien dat mijn leidinggevende van mij zal hebben op lange termijn.

SLMX, English

Please indicate the extent you agree with each of the statements below.
(1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree, (5) Strongly agree
88. My relationship with my supervisor is based on mutual trust.
89. My supervisor has made a significant investment in me.
90. I try to look out for the best interest of my supervisor because I can rely on my supervisor to take care of me.
91. The things I do on the job today will benefit my standing with my supervisor in the long run.

Appendix B – Information letter

Geachte heer/ mevrouw,

Wij zijn 5 masterstudenten van de Universiteit van Tilburg en voeren een afstudeeronderzoek uit naar kennismanagement binnen organisaties.

Voor ons als studenten is het verzamelen en analyseren van data een verplicht onderdeel van onze master Human Resource Studies. De data moeten wij verzamelen binnen teams of afdelingen. De vragenlijst moet per team/afdeling ingevuld worden door:

- Minimaal 5 medewerkers (per team/afdeling)
- 1 leidinggevende (per team/ afdeling)
- 1 HR medewerker (per organisatie)

De vragenlijst bestaat uit stellingen met betrekking tot werk en algemene vragen. Het invullen van de vragenlijst zal ongeveer 15 minuten tijd vragen. De vragenlijsten kunnen online ingevuld worden, middels een link die halverwege december direct naar de deelnemers verstuurd kan worden.

Volstrekte anonimiteit van de deelnemers is gegarandeerd. Niemand anders dan het onderzoeksteam van de Universiteit van Tilburg heeft toegang tot de antwoorden. Namen zullen op geen enkele manier achterhaald kunnen worden. De data wordt alleen gebruikt voor onderwijs- en onderzoeksdoeleinden.

Mocht u deel willen nemen aan het onderzoek, stuur ik na afloop van het onderzoek graag mijn master thesis op en is het mogelijk om een presentatie over de onderzoeksresultaten te geven, mocht daar interesse in zijn. Daarnaast is het mogelijk om beleidsadviezen te geven inzake kennismanagement.

Graag horen wij van u of u interesse heeft in ons onderzoek.
Alvast hartelijk dank voor uw tijd.

Namens het onderzoeksteam,

(Naam)

Appendix C

CFA baseline model (without modification indices)

Table 4

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	117	1635.067	585	.000	2.795
Saturated model	702	.000	0		
Independence model	72	4863.423	630	.000	7.720

Table 5

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.088	.083	.093	.000
Independence model	.170	.166	.175	.000

Table 6

Baseline comparisons

Model	NFI Delta 1	RFI Rho1	IFI Delta2	TLI Rho2	CFI
Default model	.664	.638	.755	.733	.752
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

CFA with modification indices

Table 7

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	134	899.470	568	.000	1.584
Saturated model	702	.000	0		
Independence model	72	4863.423	630	.000	7.720

Table 8

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.050	.044	.056	.477
Independence model	.170	.166	.175	.000

Table 9

Baseline comparisons

Model	NFI Delta 1	RFI Rho1	IFI Delta2	TLI Rho2	CFI
Default model	.815	.795	.923	.913	.922
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Appendix D – Standardized regression weights (including difference with common latent factor)

Table 10

CLF

Factor loading			Estimate with CLF	Estimate without CLF	Delta
KH_1	←	KH	.73	.752	.022
KH_2	←	KH	.724	.742	.018
KH_3	←	KH	.831	.844	.013
KH_4	←	KH	.683	.697	.014
KH_5	←	KH	.79	.799	.009
KH_6	←	KH	.829	.841	.012
KH_7	←	KH	.879	.895	.016
KH_8	←	KH	.754	.772	.018
KH_9	←	KH	.508	.519	.011
KH_10	←	KH	.41	.427	.017
KH_11	←	KH	.642	.664	.022
KH_12	←	KH	.574	.591	.017
SLMX_1	←	SLMX	.764	.76	-.004
SLMX_2	←	SLMX	.617	.654	.037
SLMX_3	←	SLMX	.732	.79	.058
SLMX_4	←	SLMX	.507	.556	.049
TI_1	←	TI	.926	.928	.002

TI_2	←	TI	.993	.999	.006
PCO_SD_1	←	PCO	.218	.286	.068
PCO_SD_3	←	PCO	.181	.267	.086
PCO_SD_2	←	PCO	.156	.236	.08
PCO_SD_5	←	PCO	.048	.084	.036
PCO_SD_6	←	PCO	.198	.272	.074
PCO_SD_7	←	PCO	.482	.544	.062
PCO_SD_8	←	PCO	.068	.147	.079
PCO_VD_1	←	PCO	.463	.479	.016
PCO_VD_2	←	PCO	.39	.412	.022
PCO_VD_3	←	PCO	.617	.652	.035
PCO_VD_4	←	PCO	.661	.671	.01
PCO_VD_5	←	PCO	.746	.758	.012
PCO_VD_6	←	PCO	.626	.659	.033

ELMX_1	←	ELMX	.741	.772	.031
ELMX_2	←	ELMX	.813	.844	.031
ELMX_3	←	ELMX	.743	.746	.003
ELMX_4	←	ELMX	.375	.388	.013

Appendix E - Output Hayes' PROCESS

```
Run MATRIX procedure:

************* PROCESS Procedure for SPSS Release 2.16.3 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com

**************************************************************************
Model = 9
    Y = TI
    X = PCO
    M = KH
    W = ELMX
    Z = SLMX

Statistical Controls:
CONTROL= Gender   Age      Educat   Tenure

Sample size
        229

**************************************************************************
Outcome: KH

Model Summary
 R       R-sq        MSE          F        df1        df2          p
 ,3876      ,1503      ,5872     3,4598     9,0000   219,0000      ,0005

Model
              coeff         se          t          p       LLCI       ULCI
constant     1,7285      ,4640     3,7253      ,0002      ,8140     2,6430
PCO           ,0484      ,1153      ,4194      ,6753     -,1789      ,2756
ELMX          ,1340      ,0908     1,4758      ,1414     -,0449      ,3128
int_1         ,0872      ,1788      ,4877      ,6263     -,2652      ,4396
SLMX         -,1326      ,1004    -1,3207      ,1880     -,3305      ,0653
int_2         ,1717      ,1475     1,1639      ,2457     -,1190      ,4623
Gender       -,1331      ,1114    -1,1943      ,2336     -,3527      ,0865
Age          -,0174      ,0055    -3,1624      ,0018     -,0283     -,0066
Educat        ,1726      ,0773     2,2330      ,0266      ,0203      ,3249
Tenure        ,0027      ,0060      ,4495      ,6535     -,0092      ,0146

Product terms key:

 int_1    PCO         X     ELMX
 int_2    PCO         X     SLMX

**************************************************************************
Outcome: TI

Model Summary
R       R-sq        MSE          F        df1        df2          p
,3714      ,1380     3,1644     6,2301     6,0000   222,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,7389      ,9581     3,9022      ,0001     1,8507     5,6271
KH            ,0366      ,1573      ,2327      ,8162     -,2734      ,3466
PCO          1,1847      ,2823     4,1962      ,0000      ,6283     1,7411
Gender        ,1184      ,2430      ,4872      ,6266     -,3604      ,5972
```

```
Age          -,0027      ,0139     -,1923      ,8477     -,0301      ,0247
Educat       -,2059      ,1644    -1,2520      ,2119     -,5299      ,1182
Tenure       -,0328      ,0143    -2,2890      ,0230     -,0610     -,0046

******************** DIRECT AND INDIRECT EFFECTS ************************

Direct effect of X on Y
     Effect         SE          t          p       LLCI       ULCI
     1,1847      ,2823     4,1962      ,0000      ,6283     1,7411

Conditional indirect effect(s) of X on Y at values of the moderator(s):

Mediator
         ELMX       SLMX     Effect    Boot SE   BootLLCI   BootULCI
KH     -,7564     -,6620     -,0048      ,0374     -,1257      ,0375
KH     -,7564      ,0000     -,0006      ,0208     -,0484      ,0329
KH     -,7564      ,6620      ,0035      ,0264     -,0293      ,0888
KH      ,0000     -,6620     -,0024      ,0250     -,0814      ,0332
KH      ,0000      ,0000      ,0018      ,0185     -,0228      ,0630
KH      ,0000      ,6620      ,0059      ,0360     -,0383      ,1255
KH      ,7564     -,6620      ,0000      ,0316     -,0711      ,0674
KH      ,7564      ,0000      ,0042      ,0374     -,0436      ,1271
KH      ,7564      ,6620      ,0083      ,0551     -,0554      ,1974

Values for quantitative moderators are the mean and plus/minus one SD from
mean.
Values for dichotomous moderators are the two values of the moderator.

***************** INDEX OF PARTIAL MODERATED MEDIATION ******************

Moderator:
 ELMX

Mediator
        Index   SE(Boot)   BootLLCI   BootULCI
KH      ,0032      ,0317     -,0356      ,1017

Moderator:
 SLMX

Mediator
        Index   SE(Boot)   BootLLCI   BootULCI
KH      ,0063      ,0375     -,0428      ,1229

******************** ANALYSIS NOTES AND WARNINGS ************************

Number of bootstrap samples for bias corrected bootstrap confidence
intervals:
     5000

Level of confidence for all confidence intervals in output:
    95,00

NOTE: The following variables were mean centered prior to analysis:
 PCO      ELMX     SLMX

NOTE: Some cases were deleted due to missing data.  The number of such
cases was:
  4
```

```
NOTE: All standard errors for continuous outcome models are based on the
HC3 estimator

------ END MATRIX -----
```