



## The role of future time perspective in psychological contracts: A study among older workers

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### ABSTRACT

Using a sample of post-retirement workers ( $N = 176$ ), this study investigated the role of future time perspective (FTP) in psychological contracts. The study aimed to test: (i) whether future time perspective is related to employer psychological contract fulfillment and (ii) whether it moderates relations between psychological contract fulfillment and employee obligations. Based on previous work, three types of employer psychological contract fulfillment are examined: economic, socio-emotional, and developmental fulfillment. FTP was expected to relate positively to developmental fulfillment. Moreover, people with limited future time perspective were hypothesized to manifest a stronger relationship between economic and socio-emotional fulfillment and employee obligations. Results showed that future time perspective is indeed significantly related to developmental fulfillment, and also moderated the relations between contract fulfillment and employee obligations. More specifically, economic and socio-emotional fulfillments were significantly stronger related to obligations among older workers with high FTP.

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### 1. Introduction

The current study investigates the role of future time perspective in psychological contracts among post-retirement workers, that is, those employees who continue to be employed beyond conventional retirement age. More specifically, it focuses on how future time perspective modifies the relations between employer contract fulfillment and employee obligations. Due to the proportionate decline of younger workers in the labor market, employers increasingly attempt to attract and retain older workers (Armstrong-Stassen & Ursel, 2009; De Lange et al., in press). Consequently, research interest in the role of age in the employment relationship has grown. However, no study to date has focused on the psychological contracts of post-retirement workers (Bal, De Lange, Jansen, & Van der Velde, 2008; Van der Heijden, Schalk, & Van Veldhoven, 2008). Moreover, few studies have focused on age-related factors such as future time perspective in relation to psychological contracts (Zacher & Frese, 2009). Finally, very few studies have focused on the interplay between the employer and employee sides of the psychological contract (Coyle-Shapiro & Kessler, 2002).

Instead, psychological contract research typically focuses solely on employees' assessment of employer fulfillment (Conway & Briner, 2005; Zhao, Wayne, Glibkowski, & Bravo, 2007). Less attention is given to either the employee obligations or

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the two in combination (see for exceptions: Coyle-Shapiro & Kessler, 2002; Coyle-Shapiro & Neuman, 2004; Dabos & Rousseau, 2004; De Vos, Buyens, & Schalk, 2003). In this study, using a sample of temporary post-retirement workers, we focus on how employer contract fulfillment relates to employee obligations (Coyle-Shapiro & Kessler, 2002; Rousseau, 1995).

The current study makes several distinct contributions. First, it furthers understanding of the dynamics of reciprocity within the psychological contract by examining how employer fulfillment may influence employee obligations. Second, it investigates the relative contribution of different psychological contract fulfillments employers provide to the obligations employees are motivated to perform. Third, it investigates the moderating role that different future perspectives may play in the fulfillment–obligation relationship. Lastly, it examines a distinct group of employees, those who continue working after their statutory retirement age.

In line with the aging workforce and the growing proportion of older workers on the labor market, it is likely that organizations will focus more in retention of their older workers (De Lange et al., *in press*). However, there is very few knowledge regarding how people working beyond retirement age can be motivated to engage in either citizenship behaviors or high performance (Gobeski & Beehr, 2009). In this study, we investigate how employees can be motivated to engage in these kinds of activities from a psychological contract perspective.

### 1.1. The psychological contract

The psychological contract has been used widely as a framework for understanding the employment relationship and explanation of job attitudes and behaviors (Guest, 2004; Zhao et al., 2007). According to Rousseau (1995, p. 9), a psychological contract is “individual beliefs, shaped by the organization, regarding terms of an exchange agreement between individuals and their organization”. Terms of an individual’s psychological contract include that person’s understandings of his or her own as well as the employer’s obligations (Dabos & Rousseau, 2004; Rousseau, 1995). Although the majority of studies focused on the employer’s psychological contract obligations, the psychological contract itself consists of the employees’ perceptions regarding the *mutual* obligations of both (Rousseau, 1995). Both employee and organization are assumed to have obligations towards each other, and these obligations are interdependent. Especially through beliefs regarding the extent to which the employer honors or fulfills the psychological contract, employees are expected to experience greater obligation toward the employer (Coyle-Shapiro & Kessler, 2002; Lambert, Edwards, & Cable, 2003; Montes & Zweig, 2009).

The mechanisms underlying psychological contracts are typically accounted for using social exchange theory (Blau, 1964), and in particular its central concept, the norm of reciprocity (Gouldner, 1960). By virtue of this norm, people engage in social exchanges and anticipate that their efforts will be reciprocated by the other party. In the workplace this norm manifests. Employers often make future commitments to their employees to motivate them to put effort in their jobs and remain with the organization (Lazear, 1979, 1981; Rousseau, 1995, 2005). When employees judge employer fulfillment to be high, they are more likely to feel obligated to reciprocate and hence increase their own sense of obligation towards the organization (Coyle-Shapiro & Kessler, 2002). Previous studies have indeed shown that high levels of employer fulfillment are related to high levels of employee obligations (Coyle-Shapiro & Kessler, 2002; Coyle-Shapiro & Neuman, 2004; De Vos et al., 2003). However, these studies did not investigate specific patterns of reciprocation. Although researchers have shown that the obligations consist of multiple content types, they failed to address the nature or content of the obligations involved (Dabos & Rousseau, 2004; De Vos et al., 2003; Sels, Janssens, & Van den Brande, 2004). Moreover, many studies measure only one side of the psychological contract, the employee’s own obligations for example, or what the employee believes the employer owes in return, but seldom both. To inform research on the psychological contract, we present a theoretical framework based on the work of Foa (1971) of the multiple resources employees and employers exchange.

### 1.2. Types of employer and employee obligations

Theoretically, the work of Foa (1971; Teichman & Foa, 1975) on resource exchange in social interactions provides insights into how employer psychological contract obligations might be classified (see also Berg & Wiebe, 1993; Parks, Conlon, Ang, & Bontempo, 1999; Shore et al., 2004). Foa (1971) developed a framework specifying resources people exchange in social interactions: money, goods, status, information, affiliation, and services. In an empirical investigation of this typology at the workplace, Berg and Wiebe (1993) found these resources to fall into three general types in workplace exchanges: economic, interpersonal, and informational. The first refers to monetary resources that organizations provide to their employees (*cf.* economic obligations), the second category refers to resources that organizations offer to their employees that are aimed at building a socio-emotional relationship between the two parties (*cf.* socio-emotional obligations), and the latter category referred to resources aimed at developing the employee in order to achieve greater performance on the job (*cf.* developmental obligations). Along similar lines, psychological contract obligations can be classified according to three dimensions. As such, we adopt this three-dimensional structure for employer obligations and specifically their fulfillment. Economic fulfillment refers to judgment regarding the extent to which the employer has performed its obligations regarding money and goods (e.g., salary and fringe benefits). Socio-emotional fulfillment refers to assessments regarding how well the organization lives up to its obligations regarding support and socio-emotional concern (Parks et al., 1999). Developmental fulfillment involves status and information, and refers to the extent employers are judged to perform their obligations to provide employees with advancement and standing in the organization (e.g., education and training, De Vos et al., 2003).

With respect to the employee, obligations regarding their contributions (i.e., resources they owe to the employer) are represented by efforts put in the job or otherwise directed towards helping the employer (i.e., services, as discussed by Foa (1971) and Organ (1988)). Employee obligations often entail performing in-role behaviors, extra-role citizenship, and proactive forms of high performance (Van Dyne & LePine, 1998; Workman & Bommer, 2004). In-role obligations involve working to the standards set for one's job, which might include being efficient and cooperating with colleagues. Citizenship obligations involve commitments provide discretionary support for coworkers in need or respond to and the broader firm's needs in such ways as being flexible about hours or volunteering to do extra tasks (Organ, 1988). High performance obligations concern proactive efforts workers initiate to enhance organizational performance. These high performance obligations differ from in-role activities as they go beyond standard contributions, and from citizenship in that they are proactive rather than reactive, as in the case where a worker introduces a better way of producing a product or providing a service. To gain competitive advantage, organizations are increasingly dependent on proactive contributions from highly committed employees (Pfeffer, 1994). Increases in employer psychological contract fulfillment have been shown to lead to increases in respective employee obligations (Coyle-Shapiro & Kessler, 2002). Therefore, our first hypothesis is:

*H1: Employer contract fulfillment (economic, socio-emotional, and developmental) is positively related to employee obligations (in-role, citizenship, and high performance).*

### 1.3. Future time perspective and psychological contracts

In the current study, we propose that future time perspective plays an important role in the psychological contracts of older workers. In contrast to objective calendar time, future time perspective (FTP) focuses on peoples' subjective time experiences (Husman & Shell, 2008; Lang & Carstensen, 2002). FTP refers to how much time individuals believe they have left in the future (Cate & John, 2007). Although age is negatively related with FTP (Zacher & Frese, 2009), large differences among older people have been reported (Fung, Lai, & Ng, 2001). Indeed, FTP is a flexible, cognitive-motivational, and age-related construct that changes over time (Seijts, 1998; Zacher & Frese, 2009; Zacher, Heusner, Schmitz, Zwierzanska, & Frese, 2009). Despite the important role of FTP in age-related processes there is very little research available on the role of FTP at the workplace (Cate & John, 2007; Seijts, 1998; Zacher & Frese, 2009). Further, no empirical research has yet been published on the role of FTP in psychological contracts, although researchers have pointed to its essential role in the development of psychological contracts (Bal et al., 2008; Ng & Feldman, 2009). We propose that FTP will play different roles in psychological contracts, based on the different types of psychological contract fulfillment. First, we argue that FTP will be directly related to employer developmental fulfillment. Second, we argue that FTP moderates the relations between economic and socio-emotional fulfillment and employee obligations.

Consistent with the conceptualization of FTP, people with high FTP are focused on the future and rewards that will be obtained in the future (Zacher et al., 2009). People who experience their future as open are more likely to see many opportunities in life and at work (Carstensen, 2006). Therefore, they are more inclined to look for organizations and employment opportunities that fulfill their needs for long-term exchanges, and organizations that offer them resources that fulfill their needs for long-term employment and development. We argue that especially developmental inducements, which are aimed at advancement of the employee in his or her work through learning and training, will be offered to employees that experience their future as open in contrast to employees who have a narrow future perspective. High FTP workers tend to be focused on information gathering and expanding the breadth of their knowledge (Carstensen, 2006), while low FTP workers have lower needs for developmental opportunities. Consequently, employees who anticipate working only a short period of time within the organization (those low in FTP) are less likely to receive development. In sum, we expect future time perspective to be positively related to developmental fulfillment. Hypothesis 2 is:

*H2: FTP is positively related to employer developmental fulfillment.*

Finally, we argue that the relations between employer contract fulfillment and employee obligations differ as a function of the future time perspective a person has. The relations between economic and socio-emotional fulfillment and employee obligations are stronger for people with high FTP. Aspinwall (2005) proposed that the influence of FTP on attitudes and behaviors are caused by differences in people's goals and coping styles. The perception of time as running out causes people to adapt the goals they pursue in life, and hence increasingly focus on the present, and their goals are related to their existing relationships with close others (Carstensen, Fung, & Charles, 2003; Carstensen, Isaacowitz, & Charles, 1999). Therefore, for low FTP workers, it is less relevant how their organization treats them; instead they focus on their personal relationships with familiar people inside (e.g., colleagues) and outside the organization (e.g., family and friends; Fung & Carstensen, 2004). Moreover, low FTP workers will show more passive coping styles in response to environmental stimuli, while high FTP workers show active coping styles (Aspinwall, 2005; Diamond & Aspinwall, 2003). Therefore, organizational inducements trigger high FTP workers to respond with higher motivation and stronger felt obligations, whereas low FTP workers are less inclined to react upon organizational inducements. Hence, for low FTP workers organizational inducements contribute less strongly to felt obligations than for high FTP workers. Organizational inducements, such as economic and socio-emotional fulfillment, relate significantly stronger to employee obligations than for low FTP workers. It is not expected that FTP will play a moderating role in the relationship between developmental fulfillment and employee obligations, since the

absolute level of developmental fulfillment for low FTP workers will be low, and therefore the likelihood of high developmental fulfillment for low FTP workers is very small (Carstensen, 2006).

Empirical evidence for the moderating influence of FTP can be for instance found in studies of Fung and colleagues (2001), and Fung and Carstensen (2004). In the study of Fung et al. (2001), it was found that FTP moderated the relation between age and preferences for social partners, with experimentally constrained future time perspective having a significant impact on the relations between age and preferences for social contacts. Along similar lines, Fung and Carstensen (2004) found that FTP was the main determinant of the kinds of goals individuals pursue (emotional meaning versus knowledge expansion). Thus, FTP can condition how workers respond within the context of the employment exchange. We thus hypothesize:

*H3a: The relations of economic fulfillment with employee obligations are stronger for workers with high FTP in comparison with their low FTP counterparts.*

*H3b: The relations of socio-emotional fulfillment with employee obligations are stronger for workers with high FTP in comparison with their low FTP counterparts.*

## 2. Methods

### 2.1. Sample and procedure

Post-retirement workers from an employment agency in the Netherlands participated in this study. These agency workers typically worked for long periods (i.e., 1 year or longer) in a single firm. In June 2007, 450 temporary employees were emailed and asked to fill out the online questionnaire, resulting in a response of 176 (response rate 39%). Comparisons revealed that the sample did not differ significantly from the agency's total employee population in terms of gender or mean age, tenure with the agency, education, and work hours per week. Workers in this sample held various jobs from teaching to interim management. All respondents described their employment relationship with the employer to which they were contracted (i.e., not the employment agency). We chose for employees working for multiple organizations to obtain variation in employee psychological contracts. Analyses revealed no differences in age, tenure, gender, educational level, or any of the variables under study across organizational sectors. Respondent average age was 69 (range 65–79 years); 76% were male; they worked on average three days a week, and had been with the agency for 3 years. Of the respondents, 96% worked part-time.

### 2.2. Measures

We measured economic, socio-emotional and developmental psychological contract fulfillment with a measure adapted from Coyle-Shapiro and Conway (2005). Respondents indicated the extent to which they believed their employer had fulfilled its obligations (Coyle-Shapiro & Conway, 2005; De Vos et al., 2003). Psychological contract items were measured with a 5-point Likert scale ('not at all' to 'to a very great extent'). Coyle-Shapiro and Conway (2005) conducted an exploratory factor analysis and found the three proposed dimensions (see also Coyle-Shapiro & Kessler, 2002; Rousseau, 1990). Economic fulfillment was measured with six items, an example being "fair pay for the responsibilities of the job". Socio-emotional fulfillment was measured with five items. A sample item is "opportunities to be involved in decisions that affect me". Developmental fulfillment was measured with four items. A sample item is "career support and mentoring". Our analysis of the validity of the scales is presented below. The alpha reliability for the economic fulfillment scale was .87, for socio-emotional fulfillment .78, and for developmental .79.

#### 2.2.1. Employee obligations

Three types of employee obligations were measured: in-role, citizenship, and high performance obligations. The items were based on previous work on psychological contracts (De Vos et al., 2003; Robinson, Kraatz, & Rousseau, 1994). Employees indicated the extent to which they believed they were obliged to their employer (i.e., the organization to which they were contracted), to provide a range of contributions. The items were measured with a 5-point Likert scale ('not at all' to 'to a very great extent'). In-role obligations (six items;  $\alpha = .86$ ) include quality of work and cooperating with colleagues. Citizenship obligations (six items;  $\alpha = .80$ ) include being flexible about the work and working hours. High performance obligations (four items;  $\alpha = .88$ ) refer to looking for better ways of working and saving costs.

#### 2.2.2. Future time perspective

Future time perspective was measured with the 10-item scale from Lang and Carstensen (2002). The scale has been validated in previous studies (Cate & John, 2007; Zacher & Frese, 2009). Participants rated on a 7-point scale (from 1 = not at all to 7 = to a very great extent) the degree to which they agreed with each of the 10 items. Examples are 'I have the sense that time is running out' (reverse coded), and 'many opportunities await me in the future'. Cronbach's alpha for this scale was .80.

### 2.2.3. Control variables

In the analyses we controlled for the influence of gender (1 = female; 2 = male), age, the amount of days employees worked in an average week, and their health (1 = 'very poor' to 5 = 'excellent'). Paths from the control variables to the endogenous variables were included in the analyses.

### 2.3. Analysis

To investigate the construct and discriminant validity of the psychological contract fulfillment measures and the work outcomes, measurement models including all items from the questionnaire were tested by means of Confirmatory Factor Analyses (CFA with Lisrel 8.80; Jöreskog & Sörbom, 2008). To evaluate models, established goodness-of-fit indices were used (Hu & Bentler, 1999). For the Root Mean Square Error of Approximation, a value of .05 or below is indicated as good fit, and below .08 as acceptable. Further, Standardized Root Mean Square Residual (SRMR) should be lower than .05. Non-Normed Fit Index (NNFI), Comparative Fit Index (CFI), and Incremental Fit Index (IFI) should all be above .90. Eight different models were tested; the baseline model with the seven proposed factors included: FTP, three contract fulfillment factors, and three employee obligations factors. This model was tested against a range of models with fewer factors, and a model with the eight factors under study including paths from these factors to an unmeasured latent factor to control for common source method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003, Model 1). Appendix A shows the results of the CFA and Appendix B shows the factor loadings of each item. The baseline model fitted well ( $\chi^2 = 1152.01$ ,  $p < .001$ ;  $df = 738$ ; RMSEA = .06; CFI = .93; NNFI = .92). All items loaded significantly on their latent factor with factor loadings above .40. Moreover, the baseline model obtained a better fit than all others. We conclude that the factor structure is valid, and that there is no common method threat to validity.

Hypotheses were tested with moderated structural equation modeling using Lisrel 8.80 (MSEM; Jöreskog & Sörbom, 2008). Covariance analyses were preferred over hierarchical regressions due to the former's correction of measurement error. Mathieu, Tannenbaum and Salas's (1992; see also Cortina, Chen, & Dunlap, 2001) procedure was followed to test for the interaction effects. We built a model including the three endogenous variables as outcomes and six exogenous variables (the three contract fulfillment types, FTP, and the interaction between FTP and economic/socio-emotional fulfillment).

The conceptual model is shown in Fig. 1. Each exogenous variable had one indicator, which was the standardized scale score (Cortina et al., 2001). For the interactions, we calculated the multiplicative scores of the standardized score of FTP and the standardized score of the respective fulfillment scale. The paths from the latent exogenous factors to their indicators were fixed with the square roots of the scale reliabilities. The error variances of each indicator were set equal to the product of their variances and one minus their reliabilities. Correlations between FTP and the interactions were set to zero, as well as the correlation between the contract fulfillment type and the respective interaction with FTP. FTP and the contract fulfillment types were allowed to correlate (see for more details Cortina et al., 2001). For the latent endogenous variables, it is recommended to use partial disaggregation models because latent factors need more than one indicator for a model to be identified (Bagozzi & Edwards, 1998; Yuan, Bentler, & Kano, 1997). This means that for the employee obligations item parcels were used instead of the scale scores as indicators of the latent variable. We conducted preliminary factor analyses to assess which items have similar factor structure. The items with similar relative errors are recommended to combine in item parcels (Yuan et al., 1997). Item parcelling was conducted based on the decision that the constructs had acceptable reliabilities (Cronbach's alpha > .70). Significant interactions were plotted using simple slope analysis with slope one standard deviations below and above the mean of the moderator (FTP), in line with recommendations of Aiken and West (1991). Table 1 presents the means and standard deviations, alpha coefficients, and correlations between the variables. FTP was positively correlated with the number of days employees worked ( $r = .19$ ,  $p < .05$ ), health ( $r = .21$ ,  $p < .01$ ), and developmental fulfillment ( $r = .28$ ,  $p < .01$ ). There was no significant correlation between age and FTP ( $r = -.13$ ,  $ns$ ).

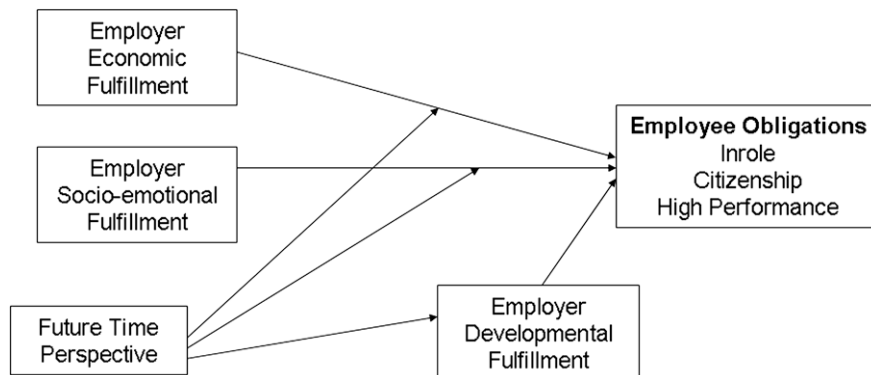


Fig. 1. The conceptual model of the current study.

**Table 1**  
Means, standard deviations, reliabilities and correlations of the study variables.

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11
1 Gender	1.76	–	–										
2 Age	68.99	3.16	.03	–									
3 Contract days	2.57	1.37	.18*	.08	–								
4 Health	3.49	.76	–.07	.03	.06	–							
5 Economic fulfillment	2.09	.77	–.01	.08	.16	–.05	<b>.87</b>						
6 Socio-emotional fulfillment	3.66	.70	.02	–.06	.10	.08	.28**	<b>.78</b>					
7 Developmental fulfillment	1.88	.76	–.10	–.12	.26**	–.10	.43**	.30**	<b>.79</b>				
8 Future time perspective	3.30	1.16	–.02	–.13	.19*	.21**	.12	.12	.28**	<b>.80</b>			
9 In-role obligations	4.22	.51	–.00	.07	.08	.13	.06	.48**	.04	.04	<b>.86</b>		
10 Citizenship obligations	3.23	.70	.05	–.00	.07	.13	.00	.27**	.10	.04	.49**	<b>.80</b>	
11 High performance obligations	3.55	.84	.04	–.06	.18*	–.01	–.06	.21**	.16**	.15	.48**	.61**	<b>.88</b>

Note. N = 176. Values in bold along the main diagonal are coefficient alphas for scaled variables. All scales were measured with a 5-point scale, except for future time perspective, which was measured on a 7-point scale. Gender: 1 = female, 2 = male.

\* p < .05.

\*\* p < .01.

### 3. Results

#### 3.1. Model fit and hypothesis testing

The proposed model obtained acceptable fit ( $\chi^2 = 65.99$ ;  $df = 34$ ;  $RMSEA = .07$ ;  $CFI = .97$ ,  $NNFI = .94$ ). The results for the hypotheses are shown in Table 2. A visual representation of the structural equation model for the first hypothesis is presented in Fig. 2. Hypothesis 1 predicted that employer contract fulfillment is positively related to employee obligations. Economic fulfillment was only significantly related to in-role obligations ( $\gamma = .19$ ,  $p < .01$ ), but not to citizenship obligations ( $\gamma = .08$ ,  $ns$ ) or to high performance obligations ( $\gamma = -.05$ ,  $ns$ ). Socio-emotional fulfillment was significantly related to in-role obligations ( $\gamma = .44$ ,  $p < .001$ ), citizenship obligations ( $\gamma = .40$ ,  $p < .001$ ), and to high performance obligations ( $\gamma = .30$ ,  $p < .001$ ). Finally, developmental fulfillment was only significantly related to in-role obligations, but in an unexpected direction ( $\gamma = -.21$ ,  $p < .05$ ). It was not related to citizenship obligations ( $\gamma = -.06$ ,  $ns$ ) or high performance obligations ( $\gamma = .01$ ,  $ns$ ). In sum, hypothesis 1 was partially supported; socio-emotional fulfillment was most strongly related to employee obligations.

Hypothesis 2 predicted that FTP was positively related to developmental fulfillment. This hypothesis was supported; the relation was positive and significant ( $\gamma = .37$ ,  $p < .001$ ). The total effect (direct and indirect) of FTP on the employee obligations was significant and negative for in-role obligations ( $\gamma = -.13$ ,  $p < .05$ ) and citizenship obligations ( $\gamma = -.21$ ,  $p < .001$ ), and not significant for high performance obligations ( $\gamma = .03$ ,  $ns$ ).

Hypothesis 3 predicted that FTP moderated the relations between economic and socio-emotional fulfillment with employee obligations positively, such that the relations would be stronger for high FTP workers. FTP moderated the relations between economic fulfillment and in-role obligations ( $\gamma = .26$ ,  $p < .001$ ), citizenship obligations ( $\gamma = .45$ ,  $p < .001$ ), and high performance obligations ( $\gamma = 1.18$ ,  $p < .001$ ). Moreover FTP also moderated the relations between socio-emotional fulfillment and in-role obligations ( $\gamma = .34$ ,  $p < .001$ ), citizenship obligations ( $\gamma = .52$ ,  $p < .001$ ), and high performance obligations ( $\gamma = .24$ ,  $p < .01$ ). Figs. 3–8 show the graphical representations of the interaction effects between FTP and contract fulfillment on employee obligations. For all of the interactions, the relations were positive for high FTP workers, and significantly stronger than for low FTP workers. Therefore, both hypothesis 3a and 3b are supported; the relations between economic and socio-emotional fulfillment and employee obligations are stronger for high FTP workers than their low FTP counterparts.

**Table 2**  
Results of moderated structural equation modeling: interactions between contract fulfillment and future time perspective (N = 176).

	Employee obligations						Fit statistics		
	In-role obligations		Citizenship obligations		High performance obligations		$\chi^2$	NNFI	RMSEA
	UPC (SE)	SPC	UPC (SE)	SPC	UPC (SE)	SPC			
Economic fulfillment (Econ. Fulf.)	.23 (.09)	.19**	.09 (.09)	.08	–.06 (.09)	–.05	65.99***	.94	.07
Socio-emotional fulfillment (S-E Fulf.)	.65 (.13)	.44***	.60 (.11)	.40***	.45 (.12)	.30***			
Future time perspective (FTP)	–.13 (.07)	–.16*	–.21 (.06)	–.25***	.03 (.07)	.04			
Econ. Fulf. * FTP	.25 (.07)	.26***	.43 (.07)	.45***	1.11 (.33)	1.18***			
S-E. Fulf.* FTP	.42 (.10)	.34***	.66 (.11)	.52***	.30 (.11)	.24**			
Development fulfillment	–.21 (.10)	–.21*	–.06 (.09)	–.06	.01 (.09)	.01			

Note. UPC, unstandardized path coefficient; SE, standard error; SPC, standardized path coefficient; NNFI, Non-Normed Fit Index; RMSEA, Root Mean Square Error of Approximation. The  $df$  of the model is 34.

\* p < .05.

\*\* p < .01.

\*\*\* p < .001.

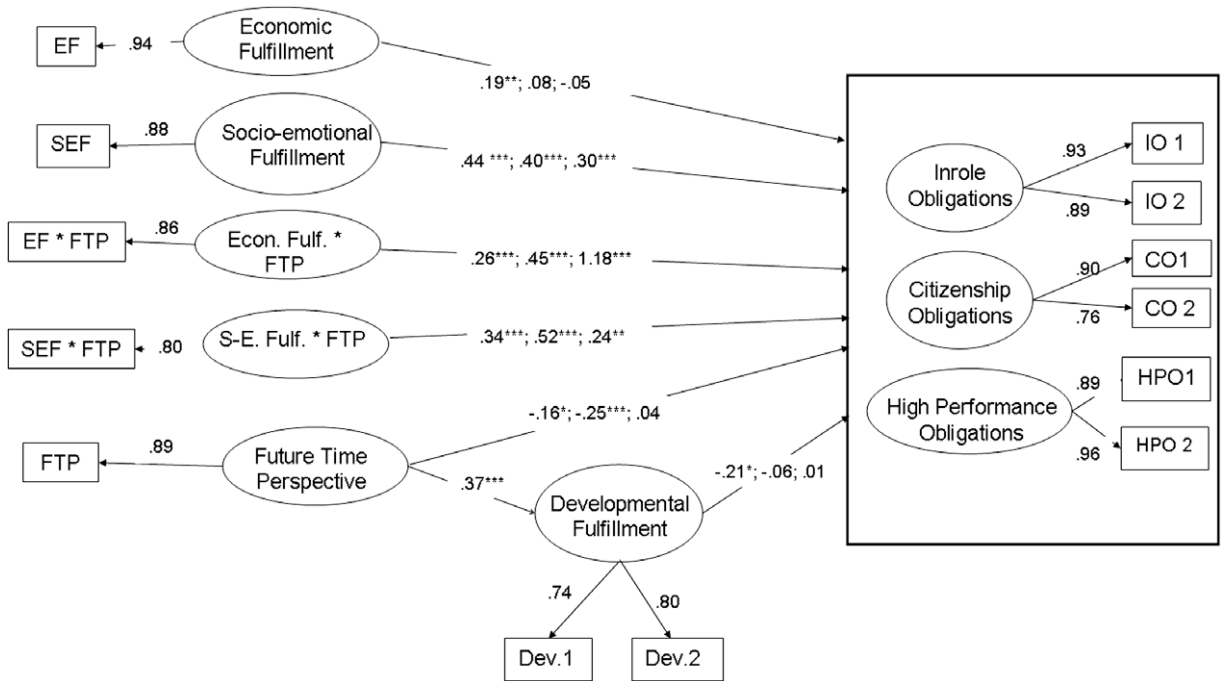


Fig. 2. Structural equations model of employer contract fulfillment, future time perspective (FTP) and interactions in relation to employee obligations. The paths to the employee obligations indicate the standardized coefficients of in-role, citizenship, and high performance obligations.

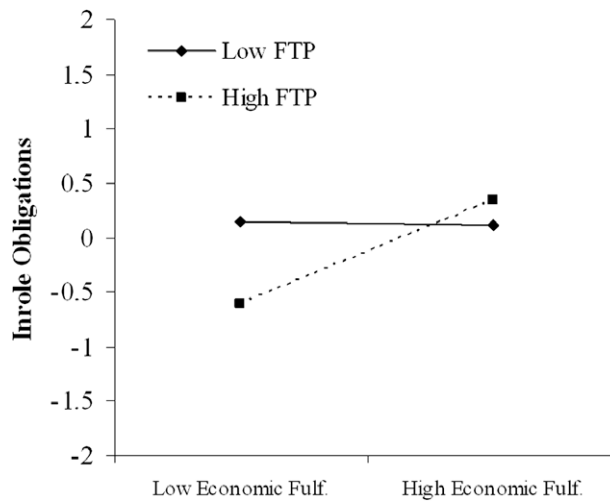


Fig. 3. Interactions between contract fulfillment and future time perspective on employee obligations.

4. Discussion

People differ in what they most value and respond to in their relation with their employer. This study has shown that in particular among older workers the perceptions of their future have an important impact on how they react to psychological contract fulfillment. People with an open future perspective receive more developmental fulfillment and react more strongly to psychological contract fulfillment in relation to employee obligations. FTP is an important contextual factor in the work motivation of older workers; with older workers reacting more strongly to contract fulfillments when they perceive an open future. It may be concluded that the exchange relationship between employee and organization is especially important for high FTP workers. They are more likely to react upon contract fulfillment in feeling obligated towards the organization; for low FTP workers their level of felt obligations is less dependent on how they perceive employer obligations to be fulfilled. This is in line with previous research that showed that older workers with a limited future show more prosocial and benevolent behavior towards the organization and others (Grant & Wade-Benzoni, 2009; Wagner & Rush, 2000). The interaction patterns (see Figs. 3–8) show without exception positive patterns of economic and socio-emotional fulfillment with employ-

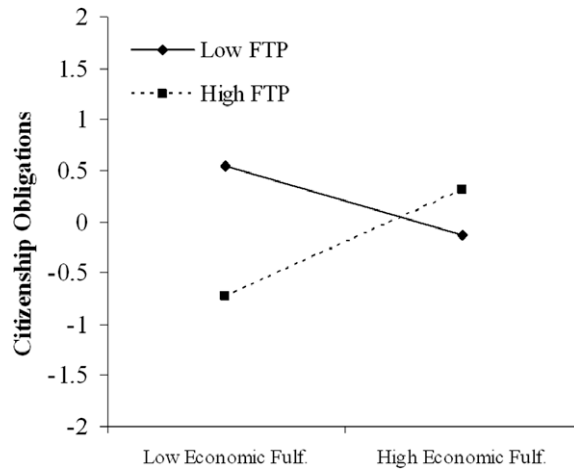


Fig. 4. Interactions between contract fulfillment and future time perspective on employee obligations.

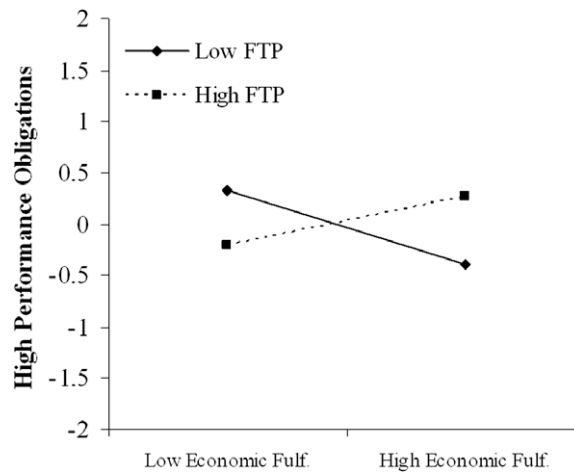


Fig. 5. Interactions between contract fulfillment and future time perspective on employee obligations.

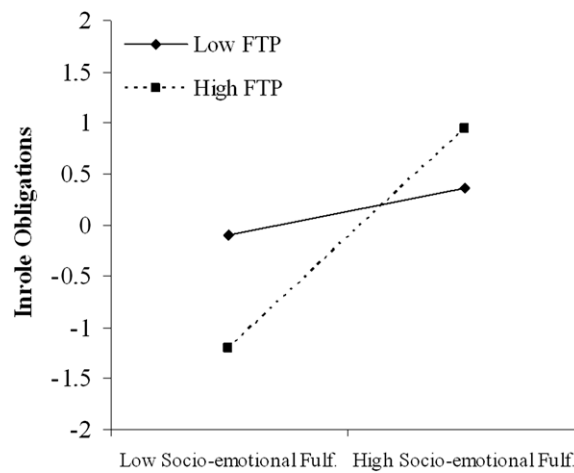


Fig. 6. Interactions between contract fulfillment and future time perspective on employee obligations.



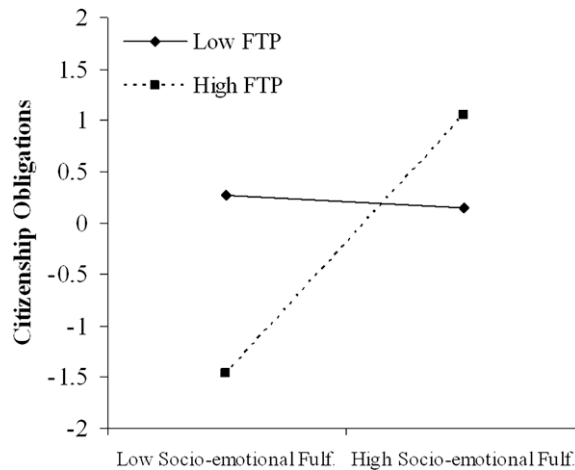


Fig. 7. Interactions between contract fulfillment and future time perspective on employee obligations.

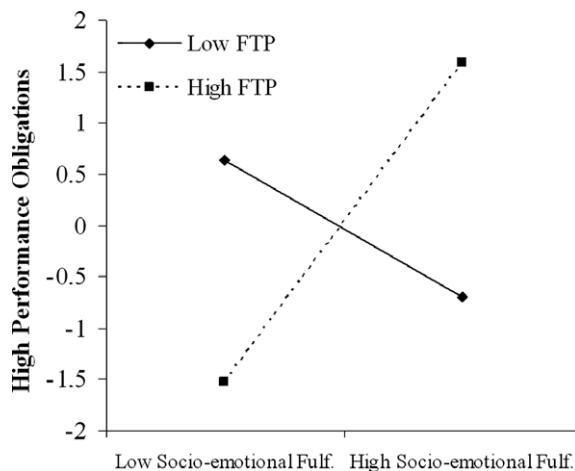


Fig. 8. Interactions between contract fulfillment and future time perspective on employee obligations.

ee obligations for high FTP workers, while the relations are non-significant or even negative for low FTP workers. Older workers who perceive their future as running out feel less obligated towards the organization when the organization offers financial inducements to increase their work motivation. Since financial inducements lose their relevance for people who perceive time as running out, they will be more focused on emotional relationships with close friends and family than on financial gains from working (Fung & Carstensen, 2004).

Socio-emotional fulfillments were most strongly related to employee obligations compared to economic and developmental fulfillments. These findings are similar to previous findings (Turnley, Bolino, Lester, & Bloodgood, 2003). The study of Turnley and colleagues (2003) showed that in particular socio-emotional fulfillments relate to higher performance and OCBs. Moreover, the study of Montes and Irving (2008) showed that the effects of relational fulfillment on trust were much stronger than the effects of transactional fulfillments. Thus, employer stimulate employees to feel more obligated towards the organization by offering flexible working options, a healthy work-private balance, and respectful treatment. It might be argued that these socio-emotional aspects of work become more relevant among the older workers in the current study. Future research could shed more light on the different saliency of psychological contract obligations over the life span.

The current study provides a first step in identifying the boundaries around the dynamics associated with psychological contracts. The present study provides theory and empirical evidence that FTP plays a moderating role in psychological contract processes. This links to recent work on idiosyncratic deals (Hornung, Rousseau, & Glaser, 2008; Rousseau, 2005), in how workers seek out different resources in employment that fulfill personal needs and preferences.

Influence of employer fulfillment on employee obligations takes different forms for low and high FTP workers. Although employers may assume that it gives to the employee and gets something back from the employee, workers do not necessarily feel compelled to reciprocate the same resources that other workers do. It would be interesting to further investigate how older workers negotiate their psychological contracts with their organization, and how this process differs from how younger workers negotiate. Recent work on idiosyncratic deals between workers and their organization suggest that older work-

ers differ from younger workers in the kinds of individualized deals they create with their organization (Hornung et al., 2008; Rousseau, 2005). Renegotiating their psychological contracts, particularly through idiosyncratic deals, can make it possible for older workers to continue working and make contributions to their employer. In achieving such outcomes, creating effective psychological contracts among older workers can help address an important challenge in the contemporary workforce in Europe and North-America (Kanfer & Ackerman, 2004).

Finally, the study affirms that the psychological contract consists of multiple dimensions. Beyond the traditional distinction between transactional and relational contracts, exchange is fundamentally about resources. It makes sense to characterize psychological contracts based on resources exchanged (Parks et al., 1999). Psychological contract theory can benefit from a focus on resources. Concomitantly, psychological contract measurement should address a more complete array of resources exchanged in employment.

#### 4.1. Practical implications

The study has several practical implications for organizations and managers. Nowadays it is important for organizations to retain and motivate their older workers, even beyond retirement age. This study showed that organizations should take different approaches in motivating their older workers. Although older workers may feel obligated to contribute to the organization, those with expanded horizons are especially motivated by economic and socio-emotional inducements, whereas low FTP workers' felt obligations are based on benevolence rather than on receiving organizational inducements.

Furthermore, it is important to prepare employers to get more value out of resources by being flexible in face of different needs and interests of older workers. Employers and managers in age-diverse organizations are encouraged to be more flexible towards different needs of age groups and use more idiosyncratic deals.

#### 4.2. Limitations and research suggestions

Several limitations of the study should be acknowledged. First, since the study was based on cross-sectional data, causal inferences cannot be made. Longitudinal studies are needed (e.g., Coyle-Shapiro & Kessler, 2002). Furthermore, the results cannot be assumed to generalize to the broad working population, since they are based on temporary workers beyond retirement age. Full-time, regular workers may have different priorities influencing their psychological contracts. Moreover, given the Dutch sample studied here, results could differ for workers in societies with other pension systems and healthcare benefit schemes. Last, this study did not distinguish between fulfillment and over-fulfillment. It may be that employees react even stronger on over-fulfilled psychological contract obligations. We suggest that future research assess the full range of contract fulfillment.

#### 4.3. Conclusion

This study provides insight into boundary conditions surrounding the role of psychological contracts between employees and organizations. The extent to which people perceive their future as open or limited is an important influence on how employer contract fulfillments relate to employee obligations, with people who perceive their future as more open reacting stronger to psychological contract fulfillments than those with limited future perspectives. Our findings suggest that employers may benefit from more flexibly targeting resources to particular segments of their workforce.

## Appendix A

Confirmatory factor analysis of the items under study.

	Model	$\chi^2$	df	RMSEA	CFI	NNFI	$\Delta df$	$\Delta \chi^2$
1	Eight-factor	1494.37***	752	.06	.91	.90	14	342.36***
2	Seven-factor	1152.01***	738	.06	.93	.92		Baseline model
3	Six-factor	1195.38***	745	.06	.92	.92	7	43.37***
4	Five-factor	1567.12***	750	.08	.90	.89	12	415.11***
5	Four-factor	1867.31***	754	.09	.88	.87	16	715.30***
6	Three-factor	2050.13***	757	.10	.86	.85	19	898.12***
7	Two-factor	2905.16***	759	.13	.81	.79	21	1753.15***
8	One-factor	3365.66***	760	.14	.77	.75	22	2213.65***

Note. \*\*\*  $p < .001$ ; RMSEA, Root Mean Square Error of Approximation; CFI, Comparative Fit Index; NNFI, Non-Normed Fit Index.

1. *Eight-factor*: Future time perspective, economic fulfillment, socio-emotional fulfillment, developmental fulfillment, in-role obligations, citizenship obligations, high performance obligations, and with a path from each of these factors to a single latent factor.
2. *The seven proposed factors*: Future time perspective, economic fulfillment, socio-emotional fulfillment, developmental fulfillment, in-role obligations, citizenship obligations, and high performance obligations.
3. *Six-factor*: Future time perspective, economic fulfillment, socio-emotional fulfillment, developmental fulfillment, in-role obligations, and a citizenship obligations factor (citizenship and high performance obligations).
4. *Five-factor*: Future time perspective, economic fulfillment, a socio-emotional fulfillment factor (socio-emotional and developmental fulfillment together), in-role obligations, and a citizenship obligations factor (citizenship and high performance obligations).

5. *Four-factor*: Future time perspective, economic fulfillment, a socio-emotional fulfillment factor (socio-emotional and developmental fulfillment together), and one employee obligations factor.
6. *Three-factor*: Future time perspective, employer fulfillment, employee obligations.
7. *Two-factor*: Future time perspective, psychological contract.
8. *One-factor*: All items together.

## Appendix B

Factor loadings (standardized coefficients) of the items under study.

	Factor loadings CFA						
	1	2	3	4	5	6	7
<b>Economic fulfillment</b>							
Pay increase to maintain standards of living	.72						
Fair pay in comparison to employees doing similar work	.77						
Fair pay for the responsibilities of the job	.71						
Fringe benefits	.58						
High salary	.84						
Pay for performance	.76						
<b>Socio-emotional fulfillment</b>							
Freedom to do the job well		.73					
Flexible working scheme		.48					
Safe work environment		.73					
Respectful treatment		.69					
Good work-private balance		.62					
<b>Developmental fulfillment</b>							
Participation in decision making			.48				
Support to learn new skills			.73				
Up to date training and development			.85				
Career support and mentoring			.83				
<b>In-role obligations</b>							
Work hard and efficient				.71			
Cooperate well with colleagues				.88			
Assist colleagues				.81			
Deliver quality in your work				.80			
Share information with colleagues				.71			
Get along well with colleagues				.72			
<b>Citizenship obligations</b>							
Work extra hours if necessary					.58		
Volunteer tasks that are not part of your job					.74		
Be flexible about what is part of the job					.79		
Be flexible in work hours					.72		
Work unpaid hours to finish a task					.46		
Accept a transfer to another project/department					.61		
<b>High performance obligations</b>							
Look for better ways of doing the job						.93	
Look for better ways of working within the department						.93	
Look for ways to save costs						.65	
Adapt to changes in the way how the work is done						.63	
<b>Future time perspective</b>							
Many opportunities await me in the future							.63
I expect that I will set many new goals in the future							.70
My future is filled with possibilities							.71
Most of my life lies ahead of me							.72
My future seems infinite to me							.77
I could do anything I want in the future							.61
There is plenty of time left in my life to make new plans							.53
I have the sense that time is running out (reverse coded)							.47
There are only limited possibilities in my future (reverse coded)							.40
As I get older, I begin to experience time as limited (reverse coded)							.54

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