Home to work spillover and turnover intentions
The mediating role of training and development practices

Jenny Sok
Hotelschool Den Haag, Hague,
The Netherlands and Nyenrode Business Universiteit,
Breukelen, The Netherlands

Robert Jan Blomme
Center for Leadership and Management Development,
Nyenrode Business Universiteit, Breukelen,
The Netherlands and Open Universiteit, Heerleen, The Netherlands

Melanie De Ruiter
Center for Leadership and Management Development,
Nyenrode Business Universiteit, Breukelen, The Netherlands

Debbie Tromp
Hotelschool Den Haag, Hague, The Netherlands, and
X.D. Lub
Academy for Hotel and Facility Management,
NHTV University for Applied Sciences, Breda, The Netherlands

Abstract
Purpose – This paper aims to investigate the relationship between home-to-work spillover, measured as positive and negative home–work interference (HWI) and turnover intentions, as well as the mediating role of perceptions concerning training and development practices.

Design/methodology/approach – Data were collected among 418 respondents who were working at two business schools. A confirmative structural equation modeling analysis was conducted for the analysis.

Findings – As expected, positive HWI showed negative relationships with turnover intentions, while negative HWI related positively to turnover intentions. Training and development practices mediated the relationship between positive HWI and turnover intentions; the mediation effect was stronger for women than it was for men. Training and development practices did not mediate the relationship between negative HWI and turnover intentions, however.

Practical implications – The outcomes suggest that helping employees to balance their work and home lives can be beneficial for employees, as well as for employers in terms of reducing turnover intentions.

Originality/value – As contributions, additional insight into the relationship between positive and negative non-work factors and turnover intentions by examining the ways in which both positive as well as negative HWI are related to turnover intentions. Furthermore, the research considers the mediating role played by perceptions concerning human resource (HR) practices, and particularly training and development
practices as perceived by the employee, in the relationship between positive and negative HWI and turnover intentions.

**Keywords**  Turnover intentions, Gender, Training practices, Conservation of resource theory, Development practices, Home-work interference

**Paper type** Research paper

**Introduction**

Employee turnover continues to be a major concern for organizations and managers. Many research studies are aimed at identifying predictors of turnover (Blomme et al., 2010). Although research has generally tended to focus on characteristics of the work environment as major causes of turnover, scholars are beginning to acknowledge the importance of non-work factors for work-related attitudes and behaviors (Huffman et al., 2014).

Our study adds to existing knowledge in two ways. First, we examine the relationship between home-to-work spillover and turnover intentions. Spillover refers to the process by which positive or negative emotions and behaviors spill over from the home to the work domain, or vice versa (Staines, 1980). Research into the relationship between home-to-work spillover and turnover is scarce. Therefore, in this paper, we examine the ways in which both positive as well as negative home-work spillover (home-work interference [HWI]) are related to turnover intentions. Second, in response to the call for more research on mediating mechanisms regarding this relationship (McNall et al., 2010), we consider the mediating role played by perceived investment in human resource (HR) practices, hereby paying necessary attention to the antecedents of perceptions of investment in HR practices (Kuvaas, 2008). We focus on perceived investment in training and development practices in particular, in the relationship between positive and negative HWI and turnover intentions. Organizations that focus on developing talent will be in a stronger position to keep their competitive advantage and to retain key employees (Cegarra-Leiva et al., 2012). Interventions aimed at providing development opportunities, including advancement opportunities and training (Gustafson, 2002; Tharenou et al., 2007), have been addressed as promising predictors for turnover intention. However, research on how home considerations affect development opportunities and in turn employee turnover is scarce (Erickson et al., 2000), which is the reason for addressing this topic here.

**Literature review**

**Turnover**

While some degree of turnover is considered positive, as it can help to refresh knowledge and ideas in an organization (Cegarra-Leiva et al., 2012), turnover is associated with high costs and negative financial consequences. For example, as asserted by Allen et al. (2010, p. 48), “the costs associated with recruiting, selecting, and training new employees often exceed 100 per cent of the annual salary for the position being filled”. Turnover also has an adverse effect on organizational competitiveness. The loss of valuable knowledge and skills due to turnover results in a decline in competitive advantage (Holtom et al., 2008; Blomme et al., 2010; Cegarra-Leiva et al., 2012). Moreover, some scholars have argued that turnover results in decreased productivity and diminished employee morale (Abbasi and Hollman, 2000). Given the negative consequences associated with employee turnover, scholars of organizational behavior and management remain interested in examining the causes of turnover intentions and exit behavior (Hom et al., 2012).
The role of non-work factors

One of the most significant demographic changes in the past decades is the growing labor force and participation of women that has been witnessed since the 1950s and 1960s (Bianchi and Raley, 2005). This has brought about a dramatic shift in the allocation of time and energy devoted to work and home roles. Furthermore, many people also need to take care of older relatives (Spillman and Pezzin, 2000). As a result of increasing divorce rates, families are also becoming more diverse (Christensen, 2005). Single parents and co-parenting ex-couples find it more difficult to combine work and home tasks (Spillman and Pezzin, 2000). In this context, work-home research, including spillover research, has come to the fore (Staines, 1980).

A systematic review of the work-home, work-life and work-family literature (McNall et al., 2010) shows that, so far, not many studies have examined the relationship between positive home-to-work spillover and turnover intentions. For this reason, McNall et al. (2010) call for more research on this relationship. However, it is also important to focus on the effect of negative non-work relationships, as negative interactions are likely to have a more profound effect on attitudes and behavioral intentions than positive non-work relational exchanges are (Laschober et al., 2012). Moreover, few scholars have addressed the processes through which both positive and negative non-work relationships affect work-related attitudes and behavior.

In this paper, we address these shortcomings. First, we provide additional insight into the relationship between positive and negative non-work factors and turnover intentions by examining the ways in which both positive as well as negative HWI are related to turnover intentions. Positive work-home interference refers to the extent to which experiences in one domain improve the quality of life in the other (Frone, 2003). Negative work-home interference can be defined as a form of inter-role conflict in which the role pressures from the work and home domains are mutually incompatible (Frone, 2003). Consequently, positive experiences in the home domain could have positive spillover effects in the work domain, while negative experiences could lead to negative spillovers (Ten Brummelhuis et al., 2013). We deliberately use the term “home” instead of “family” or “life”, as the terms “work-family”, “work-home” and “work-life” tend to be used interchangeably in the literature (Guest, 2002). In addition, the definition of home covers a variety of possible home activities, including family, community and leisure activities (Guest, 2002; Ten Brummelhuis et al., 2013).

Perceived investment in training and development, turnover and spillover

Research into the role of perceived opportunities for training and development in the relation between HWI and turnover intentions is scarce (McNall et al., 2010). Several theories are used in this field of research and can help us to understand the relationships. First, the “social exchange theory” (Blau, 1994) has been widely used as an explanatory framework in employment relationships, including work-home research and research in the field of training and development (Malik et al., 2011). The central argument is that if an organization provides something that employees value, they will reciprocate by offering in return that the organization values (Rousseau, 1995). The social exchange theory can help to provide more understanding of why such opportunities may or may not be provided, by the employer and why, in turn, this may lead to increased or decreased turnover intentions. In addition, Staines’ (1980) “spillover theory” has since the eighties been widely used to explain work-to-home and home-to-work interferences. The “role theory” (Katz and Kahn, 1978) and the “role accumulation theory”, for example, postulate that positive behaviors and emotions developed in one role, such as positive psychological energy, will expand individual
resources and facilitate performance in another role (Marks, 1977; Sieber, 1974). With the help of the role accumulation theory, we propose that positive HWI might stimulate employees to engage in actively seeking opportunities for training and development, thereby having a positive effect on perceptions of such investments by employers. On the other hand, the “perspective of role scarcity” explains how time and energy needed to fulfill multiple roles, such as roles in the work and private domains, are finite and scarce and might be conflicting (Goode, 1960). In addition, Hobfoll and Shirom (2001), in their “theory of conservation of resources” (COR), argue that stress can occur when individuals experience a loss of resources (self-esteem, energy) in the work or home domain, which might result in a spillover of negative emotions and stress into the other domain. We draw on the role theory and the role scarcity perspective, in combination with the theory of COR to help explain why negative HWI may undermine the perception that training and development opportunities are provided by the employer. To conclude, “gender role theory” (Eagly and Karau, 1991) postulates that gender roles are social expectations of the roles that individuals of a particular gender are expected to perform (Eagly and Karau, 1991). We use this theory to understand some of the gender differences in the relationships we study.

Based on these theories, we argue that perceptions regarding investment in training and development practices by employers may affect turnover intentions. More specifically, research shows that employees who perceive that their organizations offer many opportunities for training and development are likely to stay, while those who perceive that they are not offered many opportunities are likely to leave the organization (Kuvaas, 2008; Tracey and Hinkin, 2008). The present study contributes to the literature on work–family relationships, turnover and HR, in addition to being relevant to HR managers and other practitioners. As suggested by several scholars, it is of the utmost importance to pay attention to perceived HR practices as opposed to intended and actual HR practices (Wright and Nishii, 2007; Boon et al., 2011; Dysvik and Kuvaas, 2012; Latorre et al., 2016). Nevertheless, researchers have yet to pay more attention to the antecedents of perceptions of investment in HR practices. To address this gap, we examine the potential effects of positive as well as negative non-work factors on perceived HR practices, and perceived investment in development in particular.

Home-to-work interference and turnover intentions
In this study, we focus on spillovers from home-to-work, a topic that has received less attention than have spillovers from work-to-home (Guest, 2002). Staines (1980) was among the first to recognize that emotions and behaviors experienced and developed in home activities can spill over to other domains, thus transcending the physical and temporal boundaries of the home and the workplace. Consequently, positive experiences in the home domain could have positive spillover effects in the work domain, while negative experiences could lead to negative spillovers (Ten Brummelhuis et al., 2013).

In the past decade, the benefits of multiple roles in the domains of work and home have been highlighted in the literature, albeit sparsely (Frone, 2003; Kinnunen et al., 2006). As explained above, the theory of role accumulation can help to explain positive spillovers. As postulated by this theory, privileges, status security, psychological energy and personal growth gained through roles in the home or work domain can result in the expansion of individual resources and the facilitation of role performance in the other domain (Marks, 1977; Sieber, 1974).

Positive HWI thus refers to the extent to which experiences in the home domain improve the quality of life in the work domain (Frone, 2003; Greenhaus and Powell, 2006). For example, the latter distinguish an instrumental path, through which money, social capital
(e.g. friends, harmonious family relationships), skills (e.g. organizing and scheduling) and other resources are acquired in the home domain and directly applied in the work role, and an affective path, through which positive energy is gained in the home role (e.g. as a result of joyful events) and subsequently spilled over to the work domain. In addition, research has associated positive HWI with higher levels of wellbeing (Allis and O'Driscoll, 2008), as well as with greater affective and continuance commitment (Treadway et al., 2011), thus also linking it to decreases in turnover intentions (Wayne et al., 2006).

Supported by the theory and empirical findings presented above, we argue that the positive psychological energy of employees following from their domestic activities is likely to diminish their desire to quit their jobs (Kinnunen et al., 2006). We therefore hypothesize the following:

**H1a.** Positive HWI is negatively related to turnover intentions.

To understand the process underlying negative HWI and the ways in which negative behavior and emotions spill over from the home to the workplace, we explained how we draw on the COR theory developed by Hobfoll and Shirom (2001; COR), as well as on the role theory of Katz and Kahn (1978), paying attention to the role scarcity perspective. As postulated by the COR theory, individuals seek to acquire and maintain resources. Stress is seen as “a reaction to an environment in which there is the threat of a loss of resources, an actual loss in resources, or lack of an expected gain in resources” (Grandey and Cropanzano, 1999, p. 352). Following Hobfoll and Shirom (2001), we define resources as objects, conditions, personal characteristics and energy. As such, regarding negative HWI, the COR theory would postulate that a loss of resources in the home domain should be likely to cause stress, possibly resulting in a spillover of negative emotions and stress into the work domain. The role scarcity perspective focuses on how the finite and scarce character of the time and energy needed to fulfill multiple roles in the domains of home and work can lead to conflict (Goode, 1960; Geurts et al., 2005). The struggle to fulfill roles in the home roles and carry out domestic activities in which partners try to balance their time and energy consumption can lead to a loss of resources (e.g. time, energy). In turn, this process is likely to cause stress, which can spill over into the work domain. As reported by Hom and Kinicki (2001), inter-role conflict can also have an indirect effect on withdrawal cognitions, through job dissatisfaction and feelings of resentment toward the organization. In line with COR theory (Hobfoll and Shirom, 2001), we argue that, as employees struggle to reach goals and distribute affective resources to the domains of home and work, a lack of adequate resources in the home domain is likely to cause negative home-to-work spillovers (Staines, 1980; Greenhaus and Powell, 2006), and that employees might consequently consider leaving their current employers, thus increasing turnover intentions. Several studies have indeed demonstrated that negative HWI decreases both affective commitment and continuance commitment (Treadway et al., 2011), while increasing turnover intention (Yavas et al., 2008; Allen et al., 2003; Laschober et al., 2012). Considering these observations, we hypothesize the following:

**H1b.** Negative HWI is positively related to turnover intentions.

*Home-work interference and turnover intentions: the mediating role of perceived investment in training and development practices*

Latorre et al. (2016), among others, argue why we need to study employees’ individual perceptions of investment in HR practices. They draw on the social exchange theory (Blau, 1994) and the norm of reciprocity (Gouldner, 1960) to explain that employees react to signals
of employers, expressing what they offer them and, in return, respond with attitudes and behavior. Perceptions of investment in HR practices refer to employees’ beliefs regarding the extent to which “the HR practices the organization implements are indeed offered to them” (Boon et al., 2011, p. 139). The literature identifies a variety of HR practices that are important to employees (Boon et al., 2011; Latorre et al., 2016; Foong-ming, 2008). In this paper, we focus specifically on perceptions concerning investment in training and development practices (i.e. the extent to which employees believe that their organizations provide opportunities for training and development). A wide range of scholars agree that employee development is an important HR intervention that can affect workers behavior (Guest et al., 2003; Benson et al., 2004; Rigg et al., 2007). Furthermore, such perceptions are of the greatest importance to the present study, as scholars have suggested that organizations might be more willing to invest in training and development practices for employees when employees show an increase in resources (Valcour and Ladge, 2008; Greenhaus and Singh, 2012). On the other hand, it is also suggested that organizations tend to be less willing to invest in training and development for employees faced with high demands from the home domain, and that employees are less willing to invest in themselves (Valcour and Ladge, 2008). Therefore, we argue that in the relationship between positive HWI and turnover intention the perceptions of employees regarding investments by their employers in training and development practices are a mediator. Employees are likely to obtain important resources (e.g. skills, psychosocial and material resources) through positive non-work relationships. For example, Rogers and May (2003) report that having a supportive partner can facilitate self-confidence and self-esteem, whereas Greenhaus and Singh (2012, p. 317) suggest that positive non-work relationships encourage an employee’s “persistent pursuit of valued goals”. An increase in resources (e.g. improved self-efficacy) makes employees more persistent in their pursuit of opportunities for training and development, therefore making them more likely to perceive that such opportunities are offered.

In addition, as observed by Rogers and May (2003), employees who believe that their career investments are appreciated at home and whose partners support their careers are more willing to invest personal resources (e.g. time and energy) in their jobs and careers.

We draw on the theory of role accumulation, to explain these positive spillovers (Marks, 1977; Sieber, 1974). The positive energy, behavior and personal growth gained through the roles in the home domain can be expected to result in the expansion of individual resources and the facilitation of role performance in the work domain. We therefore suggest that employees who perceive their home environments to be supportive of their careers should be more likely to engage in the active pursuit of training and development opportunities at work. Employees who actively search for opportunities to develop should be more likely to perceive that their organizations invest in such opportunities. This expectation is supported by previous research. For example, Valcour and Ladge (2008, p. 303), for example, argue that “spouses whose careers are prioritized in family decision making […] report having had more career opportunities”.

Furthermore, if employees perceive that their organizations invest in training and development opportunities, they should be less likely to leave their organizations. This expectation is supported, again, by the social exchange theory, as well as by research examining the relationship between HR practices and turnover intentions (Boon et al., 2011; Kuvaas, 2008; Tracey and Hinkin, 2008; Allen et al., 2003). We therefore hypothesize the following:

\[ H2a. \] Perceptions regarding investment in training and development practices mediate the relationship between positive HWI and turnover intentions, such that positive HWI leads to higher levels of perceived investment in training and development practices, which in turn leads to lower levels of turnover.
Regarding a mediating role of perceived investment in training and development practices in the relationship between negative HWI and turnover intentions, the evidence is less strong. However, some considerations regarding a possible mediating relationship can be derived from the literature. Following Valcour et al. (2011), we draw on COR theory again, to explain this suggested relationship. Negative HWI can be expected to lead to arguments at work (Bolger et al., 1989) and perceptions of work overload (Frone et al., 1997). Work overload, which is characterized by individuals’ feelings of not having enough time to complete all the tasks that are expected of them (Valcour et al., 2011), is likely to drain important resources, including energy and time. When negative HWI builds up, for example when children are born to employees, they might tend to put their careers “on hold” until they see more room for development at work (Lyness and Thompson, 1997; Huffman et al., 2014). Employees who experience high work overload are less likely to have the energy or the time that they would need to focus on training and development opportunities offered by the organization. Valcour and Ladge (2008), for example, indeed found that employees with negative HWI tend to be less interested in development opportunities, as they are more concerned with re-adjusting their work-home balance. Moreover, the same scholars have also suggested that organizations tend to be less willing to invest in training and development for employees faced with high demands from the home domain (Valcour and Ladge, 2008). Home demands are often interpreted as signals of lessened career and organizational commitment (Williams, 2000). In addition, as mentioned above, employees who perceive that their organizations do not offer training and development opportunities are more likely to leave their organizations (Boon et al., 2011; Kuvaas, 2008; Tracey and Hinkin, 2008; Allen et al., 2003; Gould-Williams and Davies, 2005). Although we expect the mediating role in case of negative HWI to be less strong than in case of positive HWI, we hypothesize the following:

\[ H2b. \] Perceptions regarding investment in training and development practices (partially) mediate the relationship between negative HWI and turnover intentions, such that negative HWI leads to lower levels of perceived investment in training and development practices, which in turn leads to higher levels of turnover intentions.

**The role of gender**

Societal developments (e.g. emancipation) that are causing human society to become more egalitarian and increasing the participation of women in the labor force, and the growing number of dual-earner couples, single parents and co-parenting individuals have brought about a dramatic shift in the allocation of time and energy devoted to the work and the home domains (Kossek et al., 2011; Cotter et al., 2011; Sok et al., 2014).

However, there are still differences between the career paths of women and those of men. In developing and testing a gender-specific model of career success, Melamed (1995, 1996) observed that women’s careers are more likely to follow a sequential, as opposed to a simultaneous pattern. In other words, their careers tend to develop in stages, comprising a period of employment, career interruption and subsequent re-employment. These stages are linked to biological and social factors. Some of the most common reasons why women take leaves of absence are pregnancy, maternity and child rearing (Lyness and Thompson, 1997; Bender et al., 2005).
Gender role theory provides a foundation for explaining these differences, arguing that gender roles are social expectations of the roles that individuals of a particular gender are expected to perform (Eagly and Karau, 1991). These roles are often driven by processes of socialization, which influence the attitudes that men and women still have toward their social roles (Cloninger et al., 2015). This might explain why the previously mentioned differences in gender role attitudes have persisted over time, and they continue to be reflected in societal attitudes concerning the domains of home and work. Although the majority of women – beginning with the Baby-Boomers – return to work after their children are a bit older, yet a stream of research suggests that women’s commitment to paid work remains “under suspicion”, particularly when they have children (Damaske and Frech, 2016).

Against this background, we can also expect to observe differences between men and women with regard to the role played by perceptions concerning investment in training and development practices in the relationship between HWI and turnover intentions. Although training and development practices are of key importance in the working lives of all contemporary employees (Baruch, 2004), one prominent reason for these practices to be even more important to women could have to do with the fact that, because of the social attitudes mentioned above, employers could be less willing to provide training and development practices to women. For example, studies have indicated that women generally receive fewer opportunities for training and development than men do (Ohlott et al., 1994; Melamed, 1996; Tharenou, 1999; International Labour Office, 2010). It can therefore be expected that women assign even greater value to training and development practices than men do. Therefore, we argue that perceptions held by women about the extent to which their employers invest in training and development are likely to have a greater influence on the continuation or termination of their employment contracts than do similar perceptions held by men. We hypothesize:

\textit{H3.} Men and women differ with regard to the mediating role played by perceptions concerning investment in training and development practices in the relationship between positive/negative home-work spillovers and turnover intentions, with perceptions of investment in training and development practices being a stronger mediator for women than they are for men.

\textbf{Method}

\textit{Sample}  
The data for this study were collected from a group of alumni of two international business schools located in The Netherlands. In all, 1,806 registered alumni were invited by email to complete an online questionnaire. The questionnaire was ultimately completed by 418 respondents (for a response rate of 23 per cent). Nearly half of the participants (46 per cent) were female. The majority of the respondents had a bachelor’s degree in higher professional education (78 per cent), and 22 per cent had a master’s degree (with the MBA as the most common degree).

The respondents worked in a variety of sectors and industries (e.g. the hospitality industry and the financial sector), and they were employed in various parts of the world (possibly due to the international orientation of both business schools). An overview of the background characteristics of the respondents is provided in Table 1.

\textit{Measures}  
Unless otherwise indicated, all variables in the study were measured along a five-point Likert scale, with answer alternatives ranging from 1 (“completely disagree”) to 5 (“completely agree”).
Turnover intentions. We used a three-item measure (Van Dijck, 1997, as used by Ten Brink, 2004) to measure turnover intentions. An example item is “the desire to work in another organization”. The internal consistency of this scale was 0.86.

Positive and negative home-work interference. To measure positive and negative HWI, we used the Survey Work-Home Interaction Nijmegen (SWING), as developed by Geurts et al. (2005). This instrument has been validated in several previous studies (Marais et al., 2009). Four items were used to assess positive HWI (e.g. “I manage my time at work more efficiently because at home I have to do that as well”). Five items were used to assess negative HWI (e.g. “Problems with my spouse/family/friends affect my job performance”). Cronbach’s alpha values were 0.87 for positive HWI and 0.88 for negative HWI.

Perceptions of investment in training and development practices. To measure perceptions of investment in training and development practices, we followed the approach used by Boon et al. (2011). This questionnaire, which addresses a diverse set of HR practices, is based on several sources, including Ten Brink (2004). We used four items to measure perceptions of investment in training and development practices. Following Boon et al. (2011), these items were taken from Ten Brink (2004). The following is one example: “My organization

### Table I. Background characteristics of the sample (N = 418)

<table>
<thead>
<tr>
<th>Scales</th>
<th>No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>226 (54%)</td>
</tr>
<tr>
<td>Female</td>
<td>190 (46%)</td>
</tr>
<tr>
<td>Missing</td>
<td>2 (0.5%)</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>78 (19%)</td>
</tr>
<tr>
<td>Living apart together</td>
<td>39 (9%)</td>
</tr>
<tr>
<td>Living together</td>
<td>137 (33%)</td>
</tr>
<tr>
<td>Married</td>
<td>162 (39%)</td>
</tr>
<tr>
<td>Missing</td>
<td>2 (0.5%)</td>
</tr>
<tr>
<td><strong>Children living in the home</strong></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>263 (63%)</td>
</tr>
<tr>
<td>Yes</td>
<td>155 (37%)</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
</tr>
<tr>
<td><strong>Age (years)</strong></td>
<td></td>
</tr>
<tr>
<td>22-32</td>
<td>198 (49%)</td>
</tr>
<tr>
<td>33-43</td>
<td>158 (32%)</td>
</tr>
<tr>
<td>44-54</td>
<td>46 (12%)</td>
</tr>
<tr>
<td>&gt;55</td>
<td>16 (7%)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
</tr>
<tr>
<td>BA</td>
<td>324 (78%)</td>
</tr>
<tr>
<td>MA (MBA)</td>
<td>92 (22%)</td>
</tr>
<tr>
<td>Missing</td>
<td>2 (0.5%)</td>
</tr>
<tr>
<td><strong>Contract (hours/week)</strong></td>
<td></td>
</tr>
<tr>
<td>0-12</td>
<td>11 (3%)</td>
</tr>
<tr>
<td>13-24</td>
<td>10 (2%)</td>
</tr>
<tr>
<td>25-36</td>
<td>70 (17%)</td>
</tr>
<tr>
<td>37-</td>
<td>321 (77%)</td>
</tr>
<tr>
<td>Missing</td>
<td>6 (1%)</td>
</tr>
</tbody>
</table>
offers me the opportunity to follow training, courses, and workshops”. The Cronbach’s alpha level for this scale was 0.85.

**Analyses**

Mean scores, standard deviations and Pearson correlations were computed for all variables (Table II). The measurement model was assessed according to confirmatory factor analysis (CFA) performed using AMOS 20 (Arbuckle, 2011). Results of CFA on the 19 initial variables revealed the need to eliminate three items, as the highest loading on the second scale was four-fifths of the loading on the first scale (Stevens, 2009). The final CFA model allowed the correlation of two error terms of the scale for negative HWI. The remaining measuring instrument contained 16 items. The four scales were turnover intention (three items), positive HWI (four items), negative HWI (five items) and perceptions of investment in training and development practices (four items). Normality was confirmed by assessing the skewness and kurtosis of the variables. Cronbach’s alpha levels for the scales ranged from 0.85 to 0.88, suggesting satisfactory internal consistency. Convergent validity was evaluated by inspecting the standardized factor loadings, which were all >0.50 and statistically significant. None of the correlations between the study variables exceeded the criterion of 0.70 (Stevens, 2009). Moderate to strong inter-correlations were found between perceptions of investment in training and development practices and turnover intentions; all other correlations were lower. The correlation between positive and negative HWI was 0.14 and significant, and both the variance inflation factor (VIF) and the level of tolerance approached 1 each time, thus suggesting that multicollinearity was not a problem.

Discriminant validity was further evaluated through a series of $\chi^2$ difference tests for each pair of constructs (Anderson and Gerbing, 1988). The fit measures considered were $\chi^2$ and $\chi^2/df$, which should be 4 or lower. According to Hu and Bentler (1999), the comparative fit index (CFI) should be >0.90, although a cut-off value of 0.95 seems to be more advisable. The root mean square error of approximation (RMSEA) should be <0.06, and the standardized root mean square (SRMR) should be <0.08. Evaluation of common-method bias revealed no issues concerning the use of the latent factor approach in CFA (Podsakoff et al., 2003). Structural equation modeling (SEM; Amos 20) was used to test our hypotheses.

The overall CFA demonstrated a good fit to the data: $\chi^2 = 157.0$; df = 97; $\chi^2/df = 164$; CFI = 0.98; SRMR = 0.04; RMSEA = 0.04. Results of the single-factor test (Podsakoff et al., 2003) revealed that the four-factor model was superior to the single-factor model ($\chi^2 = 2301.2$; df = 103; $\chi^2/df = 22.3$; CFI = 0.39; SRMR = 0.22; RMSEA = 0.22), thus indicating that common-method variance was not a problem. Discriminant validity was confirmed by a series of $\chi^2$ tests of difference for each pair of constructs (Anderson and Gerbing, 1988). For

<table>
<thead>
<tr>
<th></th>
<th>Means</th>
<th>Means</th>
<th>Means</th>
<th>SD</th>
<th>$\alpha$</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>0.54</td>
<td></td>
<td></td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. POShwi</td>
<td>2.91</td>
<td>2.89</td>
<td>2.94</td>
<td>0.79</td>
<td>0.87</td>
<td>-0.08</td>
<td>-0.18</td>
<td>-0.32</td>
</tr>
<tr>
<td>3. NEGhwi</td>
<td>1.70</td>
<td>1.71</td>
<td>1.68</td>
<td>0.59</td>
<td>0.88</td>
<td>-0.14**</td>
<td>-0.18**</td>
<td>-0.32**</td>
</tr>
<tr>
<td>4. PTaDP</td>
<td>3.90</td>
<td>3.88</td>
<td>3.93</td>
<td>0.85</td>
<td>0.85</td>
<td>0.18**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Ti</td>
<td>2.82</td>
<td>2.91</td>
<td>2.71</td>
<td>1.07</td>
<td>0.86</td>
<td>0.22**</td>
<td>-0.18**</td>
<td>-0.32**</td>
</tr>
</tbody>
</table>

**Notes:** *p < 0.05; **p < 0.01; ***p < 0.001; 1. Gender is coded 0 = female, 1 = male; 2. POShwi = positive work-home interference; 3. NEGhwi = negative work-home interference; 4. PTaDP = Perceived investment in Training and Development Practices; 5. Ti = turnover intentions

Table II. Mean values (including values for men and women), standard deviations, Cronbach’s alpha levels ($\alpha$) and bivariate correlations between study variables.
each test, we developed a two-dimensional model, after which we forced the items of both constructs into a single-factor solution. The $\chi^2$ difference tests produced significant results for the one-to-one comparisons of each pair of measures, which demonstrated that the two-factor solutions performed better in every analysis. Multi-group analyses revealed that both the measurement instrument and the proposed pattern of relationships were invariant across the groups of male and female respondents. The multi-group analyses showed that the measurement model was acceptable for both men and women (Table III). The $\chi^2$ levels increased significantly only in Model D. Combined with the relatively small changes in CFI, SRMR and RMSEA, this result provided sufficient justification to assume equivalence of the measurement model for the compared groups (Stevens, 2009).

The second step involved testing the model expressed in our hypotheses (Figure 1). Following the rules for mediation, as proposed by Baron and Kenny (1986), we tested three models: a non-mediated model, a fully mediated model and a partially mediated model.

We also performed multi-group analyses to test differences between women and men. Overall, the results indicate that the partial mediation model fits the data better than the other two models do: $\Delta \chi^2 = 57.8; p < 0.001; \chi^2 = 157.0; \chi^2/df = 164; \text{CFI} = 0.98; \text{SRMR} = 0.04; \text{RMSEA} = 0.04$ (Table III). For both genders, the squared multiple correlations were the highest in the partial mediation model (Male: $\beta = 0.13, p < 0.05$; Female: $\beta = 0.38, p < 0.001$). The only standardized indirect effect that could be measured (positive HWI → perceptions of investment in training and development practices → turnover intentions) concerned the group of male respondents ($\beta = -0.08, p < 0.05$).

In general, the partial mediation model was able to explain 22 per cent of the variance in turnover intentions.

Results

The final SEM model is presented in Figure 1. $H1a$ was supported. Overall, positive HWI was negatively related to turnover intentions ($\beta = -0.16, p < 0.01$), although for women, the relationship was fully mediated by perceptions of investment in training and development practices. $H2a$ was also supported. Perceptions of investment in training and development practices were shown to mediate the relationship between positive HWI and turnover intentions, with positive HWI leading to higher levels of perceived investment in training and development practices, which subsequently led to lower turnover intentions.

$H1b$ was supported. Negative HWI was positively related to turnover intentions ($\beta = 0.26, p < 0.001$). The more exploratory analysis concerning a possible mediating effect ($H2b$)

<table>
<thead>
<tr>
<th>$\chi^2$</th>
<th>dF</th>
<th>$\chi^2$/df</th>
<th>$\Delta \chi^2$</th>
<th>$\Delta df$</th>
<th>CFI</th>
<th>SRMR</th>
<th>RMSEA</th>
<th>SMC</th>
<th>Ti</th>
</tr>
</thead>
</table>

**Table III.** Comparison of models

Notes: *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$
revealed no significant relationship between negative HWI and perceptions of investment in training and development practices \((\beta = -0.11, p > 0.05)\); therefore, no mediating effect could be established. The results nevertheless revealed that perceptions of investment in training and development practices had a direct negative effect on turnover intentions \((\beta = -0.34, p < 0.001)\).

Results from the multi-group analyses revealed a partial mediation effect for men and a full-mediation effect for women with regard to the relationship between positive HWI and turnover intentions. \(H3\) was therefore supported. Gender is a moderator for the relationship between positive home-to-work spillover and turnover intentions, with perceptions of investment in training and development practices being stronger predictors of turnover intentions for women than they are for men.

**Discussion**

This paper examines relationships between positive and negative HWI and turnover intentions, in addition to investigating the mediating role that perceptions of investment in training and development practices might play in these relationships. The results demonstrated that, for both genders:
Positive HWI has a significant negative effect on turnover intentions and negative HWI has a significant positive effect on turnover intentions.

Positive HWI is positively related to perceptions of investment in training and development practices, but negative HWI is not significantly related to such perceptions.

Perceptions of investment in training and development practices have a significant negative influence on turnover intentions.

The introduction of the mediator into the model revealed that perceptions of investment in training and development practices partially mediate the relationship between positive HWI and turnover intentions for men, although positive HWI continues to have a direct significant impact on turnover intentions, even when controlling for perceptions of investment in training and development practices.

For women, no direct significant path remained after introducing perceptions of investment in training and development practices into the model.

Our study responds to the call for research on the mechanisms underlying the relationship between HWI and turnover (Hom and Kinicki, 2001; Brough and Kalliath, 2009). According to our results, perceptions of investment in training and development practices are an important mediator in the relationship between positive HWI and turnover intention. As we found that perceptions of investment in training and development practices have a direct relationship with turnover intentions which is line with several studies (Gustafson, 2002; Dysvik and Kuvaas, 2010; Kuvaas, 2008; Kuvaas and Dysvik, 2010) which claim that a lack of training and development opportunities and a perceived lack of advancement (including achieving mastery goals) can cause employees to leave their organizations. Perceptions of investment in training and development practices were more important for women than they were for men, which supports our claim that after having taken a leave of absence, the supply of and demand for professional development opportunities are likely to be of particular importance to women. However, perceptions of investment in training and development practices are not a mediator for negative HWI, which suggests that employees with negative HWI may be less interested in development opportunities, as they are more concerned with putting their resources in the home domain and re-adjusting their work-home balance.

Our study supports the importance of social exchange theory, a theory that is often used in employee–employer research. It helps to explain turnover behavior as a consequence of perceived HRD practices. Also, spillover theory proved useful; the accumulation of resources and COR theory help to understand how resources in the home or the work domain can expand or diminish, as a result of experiences in the other domain. Moreover, the combination of spillover theory with the role theories helps to reveal the underlying mechanisms with regard to the home-work interface, also with regard to gender. Still, there is a need for a deeper understanding of what exactly “spills over” and how this spillover process precisely works for different groups of people. Psychological contract theories could prove to be useful here. Concluding, although the gender differences found in this study needs to be investigated further, gender role theory still seems to be relevant, in this type of research.

**Limitations and suggestions for future research**

It is important to note several limitations to the present study. First, because it was based on a cross-sectional design, the results do not allow any conclusions regarding causality.
Longitudinal data would be preferable, especially with regard to spillover effects (Kinnunen et al., 2004). Nevertheless, our analyses represent an initial step in the investigation of relationships between home-to-work spillover and turnover intentions, as well as of the mechanisms underlying these relationships. A second limitation could involve the fact that the study was based on self-reported data. Nevertheless, spillover effects can be assessed only according to this type of data, as these effects reflect the experiences of individuals. Moreover, we attempted to avoid common-method variance by embedding the measures within a broad array of unrelated topics included in the questionnaire. A single-factor test (Podsakoff et al., 2003) indicated that common-method variance was not a problem. Also, our study was based on information obtained from a sample of 418 graduates of two Dutch international business schools. Therefore, we cannot determine the extent to which our results are truly generalizable to other populations. However, alumni from both schools had international backgrounds, with varying cultures; both schools are very internationally oriented, and most respondents were employed in international contexts, in a wide variety of industries. This might suggest that our findings are stable across industries and cultures. However, in future research, more emphasis should be placed on the generalizability of the sample.

Finally, in this study, we only investigated the mediating role of perceived investment in training and development practices, measured in a broad construct of four items only. Future studies could make use of more developed training measures and development measures. Kuvaas and Dysvik seem to provide good leads for that, including possible mediating factors (Kuvaas et al., 2012). Scholars could also address other HR practices, including those related to work-home balance, such as various supportive measures (Valcour et al., 2011; Foong-ming, 2008). With regards to development, there could also be a role for variables such as access to training and supervisory and peer support, and employees’ attitudes toward training (Malik et al., 2011). It would also be interesting to consider the actual training and development practices of the employer, rather than focusing solely on the perceptions that employees have of the investment in these practices by their employers (Latorre et al., 2016). In a similar vein, future studies could include a measure for the actual turnover of employees. Other interesting questions concern the role of family members and the moments at which turnover decisions are to be made. In some cases, employees might be encouraged to quit by other family members, as a means of resolving work-home conflict (Lee and Maurer, 1999). Moreover, the inclusion of other work-related attitudes and behaviors could both extend our research and respond to the call for additional scholarly attention to the relationship between non-work factors and workplace attitudes and behaviors (Laschober et al., 2012).

Management implications
Scholars suggest have suggested that the world of work is becoming increasingly demanding (Guest, 2002), and that many people feel forced to develop their employability at all times (Rothwell et al., 2009). At the same time, contemporary home life appears to be placing increasing demands on people as well. As argued by McNall et al. (2010), employees who perceive that their organizations are helping them integrate their work and family roles also tend to perceive their organizations as more supportive. In other words, the creation of a sustainable workforce is likely to depend upon the willingness and ability of organizations to focus on needs relating to work–home balance, as well as on the development needs of individual employees. Another reason for organizations to invest effort in helping employees to maintain an effective work–home balance has to do with the finding that employees who experience less negative interference and more positive interference are
objectively healthier, in addition to performing better and being absent from work less frequently (Van Steenbergen and Ellemers, cited in Brough and Kalliath, 2009). The work–home balance literature provides ample leads for doing that: establish a positive work–home culture, provide managerial support and flexibility (Deery, 2008).

Some studies report that women experience more negative home-to-work spillovers than men do (Carlson et al., 2000) in addition to receiving fewer opportunities for development (Tharenou, 1999; ILO, 2010). Our outcomes seem to contradict these findings (Table II). Considering the mediating role of perceived investment in training and development practices for women in our research model, however, and in light of the high degree of variance that the model explains for women (Figure 1), we suggest that organizations should investigate the possibility that their female employees need additional attention with regard to work–home balance as well as training and development opportunities. Our outcomes indicate that investing in employees, both women and men, who experience positive spillover from the home environment to the work environment, can pay off; they tend to show less intentions to leave the organization. This could be done by offering more opportunities and support, to engage more in training and development (Malik et al., 2011; Kraimer et al., 2011), more support with engaging in development practices by improving the employer–employee relationship (Kuvaas, 2008; Kuvaas et al., 2012) and by investment in a development climate, as explained by Dysvik and Kuvaas (2012).

Conclusion
To prevent turnover and to retain valuable employees, the outcomes of our study challenge organizations to provide support to employees in balancing their work and home life. Our results also encourage organizations to pay attention to the needs that their employees have for development and growth, not only in terms of maintaining their employability but also with regard to retaining them within the organization. Our study thus indicates that positive home-work effects can diminish employees’ intentions to leave the organization, partly via HR practices, but that negative spillover from home to work can reinforce such intentions.

References


Further reading


**Corresponding author**

Robert Jan Blomme can be contacted at: r.blomme@nyenrode.nl

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