Dimensions of work–home culture and their relations with the use of work–home arrangements and work–home interaction

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Abstract
This study examined the associations of work–home culture with (a) demographic and organizational characteristics, (b) the use of work–home arrangements, and (c) negative and positive work–home interaction, among 1,179 employees from one public and two private organizations. Substantial support was found for a 2-factor structure of a work–home culture measure differentiating between “support” (employees’ perceptions of organization’s, supervisors’, and colleagues’ responsiveness to work–family issues and to the use of work–home arrangements) and “hindrance” (employees’ perceptions of career consequences and time demands that may prevent them from using work–home arrangements). This 2-factor structure appeared to be invariant across organizations, gender, and parental status. Significant relationships with organizational characteristics, the use of work–home arrangements, and work–home interaction supported the validity of these two cultural dimensions. It is concluded that if employers want to minimize work–home interference, to optimize positive work–home interaction, and to boost the use of work–home arrangements, they should create a work–home culture that is characterized by high support and low hindrance.

Keywords: Work–home culture, work–home arrangements, work–home interference, work–home interaction, part-time, support, hindrance

Introduction
Nowadays many employees in Western countries have difficulty combining work and family demands. A survey among a representative sample of the US work force revealed that not less than 40% of employed parents feel that work interferes with their family life (Bond, Thompson, Galinsky, & Prottas, 2003). Similar and even higher figures have been reported for Dutch employees (Geurts, Kompier, Roxburgh, & Houtman, 2003) and for the Canadian work force (Duxbury & Higgins, 2001). Allen, Herst, Bruck, and Sutton’s (2000) meta-analysis showed that work–home (WH) interference (often referred to as...
work–home conflict; Greenhaus & Beutell, 1985) is unfavourably associated with various work-, family-, and particularly stress-related outcomes.

As many Western governments and companies acknowledged the possible threat of WH interference for employee health and well-being, they introduced policies and arrangements that may enable workers to manage work and domestic obligations more successfully. Among these WH arrangements, two main categories can be distinguished: (1) flexible arrangements, increasing employees’ flexibility regarding working time and/or working place (e.g., part-time work, and flextime; flexible start and finishing times); and (2) care-related arrangements, enabling employees to perform their care-giving responsibilities (e.g., parental leave, subsidized childcare).

Considering the high proportion of workers reporting WH interference and the growing availability of possibly beneficial WH arrangements, remarkably small numbers of workers actually use such arrangements (Allen, 2001; Anderson, Coffey, & Byerly, 2002; Eaton, 2003; Lobel, 1999; Thompson, Beauvais, & Lyness, 1999). Apparently, the presence of WH arrangements is a necessary but insufficient condition for workers to use them. The missing link here may be the organization’s work–home culture, which may be defined as “the shared assumptions, beliefs, and values regarding the extent to which an organization supports and values the integration of employees’ work and private lives” (Thompson et al., 1999, p. 394). Recent research (Mauno, Kinnunen, & Ruokolainen, 2006) showed that a supportive WH culture is related to positive work outcomes, such as higher job satisfaction and commitment and lower levels of physical complaints, thus underlining the importance of WH culture for worker well-being. It seems plausible that work–family culture is related to the degree to which workers use WH arrangements. For example, there are quite strong indications that workers do not use available WH arrangements because they fear that using them will endanger their jobs or career opportunities (Burke, 2006; Kinnunen, Mauno, Geurts, & Dikkers, 2005; Lewis & Smithson, 2001). For instance, Perlow (1995) showed that engineers were reluctant to profit from work–family benefits as they believed this would harm their career. Judiesch and Lyness (1999) showed that taking family leave was indeed negatively associated with subsequent promotions and salary increases.

**Conceptualization of WH culture**

Thompson et al. (1999) were among the first to conceptualize WH culture in terms of three components: (a) **managerial support** (sensitivity shown by managers to employees’ family responsibilities), (b) **career consequences** (the perception of negative career development as a consequence of the uptake of WH arrangements), and (c) **organizational time demands** (expectations that employees spend much time visibly at work). However, Allen (2001) argued that a distinction should be made between different levels of support within the organization, more specifically between global organizational support (employees’ perceptions of how family-supportive the global organization is) and more specific supervisor support (employees’ perceptions of how understanding the direct supervisor is of employees’ desire to integrate work and private lives). In line with Allen (2001), we believe that a third support component of WH culture should be acknowledged as well, namely colleague support regarding the use of WH arrangements. For instance, Haas, Allard, and Hwang (2002) found among working fathers that their use of parental leave was affected by their perceptions of work group norms that reward long hours at work.

Consequently, we conceptualize WH culture as a five-dimensional construct, including (a) organization’s support, (b) supervisor’s support, (c) colleagues’ support, (d) career consequences, and (e) organizational time demands. We hypothesize, though, that these
five components can be assigned to two more general (higher-order) dimensions of WH culture, namely “support” reflecting employees’ perceptions of organization’s, supervisor’s, and colleagues’ responsiveness to work–family issues and the use of WH arrangements, and “hindrance” reflecting employees’ perceptions of career consequences and organizational time demands that may prevent them from using WH arrangements.

Previous empirical research

The limited research addressing the relationship between the organization’s WH culture and the use of WH arrangements has some limitations (Allen, 2001; Thompson et al., 1999). First, as Kinnunen et al.’s (2005) review revealed, WH culture has been conceptualized and operationalized in very different ways, and “only a few multidimensional definitions and measures of WH culture were found” (p. 108). In addition, “the psychometric evaluation—construct validity in particular—of the existing WH culture scales has been either relatively simple or insufficiently reported” (p. 109). Moreover, it remains to be seen “how appropriate and psychometrically sound these scales would turn out to be ... across different samples (organizations or subunits)” (p. 109). Second, the use of WH arrangements is often measured by composite scores (based on the total number of arrangements) whereas some WH arrangements are exclusively targeted towards specific subgroups of workers (e.g., parents of young children). Failure to distinguish among types of arrangements may therefore lead to undifferentiated and biased results. Third, and related to the previous point, specific worker characteristics (e.g., gender and parental status) are largely ignored in studies into the association between WH culture and WH arrangements. However, whereas all workers may be interested in using flexible arrangements (e.g., part-time work), only parents of young children (in most Western countries, <12 years old) are eligible to use certain care-related arrangements (i.e., subsidized childcare, parental leave). In case the eligibility of certain subgroups of workers is disregarded by researchers, the use of such arrangements and their associations with WH culture may be underestimated.

In a first attempt to deal with these limitations, Dikkers, Geurts, Den Dulk, Peper, and Kompier (2004) conceptualized WH culture by the five previously proposed components, provided preliminary support for the existence of two higher-order factors of WH culture (“support” and “hindrance”), and examined the relationships of WH culture with the use of specific types of WH arrangements and WH interference. However, the findings of this specific study (Dikkers et al., 2004) were based on only one organization, making it uncertain whether the observed 2-factor structure of WH culture would hold across different organizations, and seriously limiting the generalizability of results to other organizational settings (Kossek & Ozeki, 1998). Moreover, the study of Dikkers et al. (2004) conceptualized the influence between work and home only as WH interference. However, current thinking is that interference may also originate from the home domain (home–work interference), for instance, when worries about children being ill hamper functioning at work (see, Geurts & Demerouti, 2003; Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005, for overviews). Moreover, it should be recognized that both domains may be a source of strength to one another as well (often referred to as facilitation, enrichment, or positive spillover; Carlson, Kacmar, Wayne, & Grzywacz, 2006; Greenhaus & Powell, 2006), for instance, when positive moods and skills built up at work spill over to home, and vice versa. Geurts et al. (2005) refer to these four components of work–home interaction as, respectively, negative WHI (negative influence from work on home), negative H
negative influence from home on work), positive WHI (positive influence from work on home), and positive HWI (positive influence from home on work).

The present study

The current study partially replicates the Dikkers et al. (2004) study (a) by testing the proposed 2-factor structure of the WH culture measure ("support" and "hindrance") against several competing factor models, and by testing the robustness of this structure across gender and parental status, and (b) by examining the associations of the two WH culture dimensions ("support" and "hindrance") with demographic characteristics (gender and parental status), the use of four specific arrangements (flextime, working part time, subsidized child care, and parental leave), and negative WHI.

The present study extends this previous study (a) by testing the robustness of the proposed 2-factor structure of WH culture across multiple samples drawn from three different types of organizations (one in the public sector, and two in the private sector), and (b) by examining the associations of the two WH culture dimensions ("support" and "hindrance") with organization characteristics (the three samples incorporated in this study), and with all four components of WH interaction (negative and positive WHI and HWI).

Factor structure and typology of WH cultures

We expect that WH culture will be best characterized by two general dimensions: "support" (employees' perceptions of organization's, supervisor's, and colleagues' responsiveness to work–family issues and the use of WH arrangements), and "hindrance" (employees' perceptions of career consequences and organizational time demands that may prevent them from using WH arrangements; hypothesis 1).

Associations of WH culture with demographic and organization characteristics

The as yet limited research on WH culture in multiple companies reveals that it was perceived as more supportive in companies that incorporated relatively large proportions of women (Allen, 2001; Poelmans, Chinchilla, & Cardona, 2003). This can be explained by resource dependence theory, arguing that as the proportion of women in organizations grows, organizations will need to adjust their human resource policies accordingly because of their increased dependence on female talent (Dreher, 2003). A similar reasoning can be followed for working parents: companies that incorporate a large proportion of parents may be more responsive to work–family issues than companies with a work force dominated by workers without children.

Recent research has also shown that public organizations (owned by or controlled by the government) have been more concerned with assisting their workers with care-giving responsibilities and offered a broader range of WH arrangements than companies in the private sector (not under direct control of the government, Den Dulk, 2001; Evans, 2001; Mauno, Kinnunen, & Piitulainen, 2005). Therefore, in the current study we expect that women (hypothesis 2a), parents (hypothesis 2b), and workers from the public organization (hypothesis 2c) will report higher levels of WH culture-support and lower levels of WH culture-hindrance compared with men, employees without children, and workers from the private organizations, respectively.
Associations of WH culture with the use of WH arrangements

The few studies that have examined these associations demonstrated that employees who perceived the company’s WH culture as more responsive to work–family issues used more arrangements than those who perceived the WH culture as less supportive (Allen, 2001; Dikkers et al., 2004; Thompson et al., 1999). This relationship seems to fit the often demonstrated association between behaviour and perceived social norms regarding that behaviour (see Ajzen & Fishbein’s theory of reasoned action, 1980). People are more inclined to behave in a certain way (e.g., to use arrangements), the more they feel this behaviour is tolerated by and approved of by relevant others (e.g., supervisor). Therefore, we expect that employees who report higher levels of WH culture support and lower levels of WH culture hindrance are more likely to use WH arrangements (hypothesis 3).

Associations of WH culture with WH interaction

Various studies have provided evidence that when the company’s culture is more supportive towards the use of WH arrangements, employees experience less negative WHI and HWI (Allen, 2001; Anderson et al., 2002; Batt & Valcour, 2003; Dikkers et al., 2004; Eby et al., 2005; Mauno, Kinnunen, & Pyykkö, 2005; Thomas & Ganster, 1995; Thompson et al., 1999; Thompson & Prøttsø, 2006). It can be assumed, though, that perceptions of high support and low hindrance regarding the use of WH arrangements are associated not only with less negative but also with more positive influence between both domains. For instance, Thompson and Prøttsø (2006) found that workers experienced more positive spillover between both domains when their supervisors and co-workers were more responsive to work–family issues. We therefore expect that employees who report higher levels of WH culture-support and lower levels of WH culture-hindrance will experience less negative WHI (hypothesis 4a), less negative HWI (hypothesis 4b), more positive WHI (hypothesis 4c), and more positive HWI (hypothesis 4d).

Method

Participants

The total study sample (N = 1,179) included survey data collected from three Dutch organizations: (1) Public; a governmental institute in the service sector (N = 407; a 40% response rate). This sub-sample was representative of the company population regarding gender (χ²(df = 1, Nf = 407) = 0.00, ns) and age distribution (χ²(df = 2, N = 407) = 1.51, ns); (2) Plant; a subsidiary of a manufacturing company in the electro-technical sector (N = 269; 39% response rate). Only employees working on a daytime basis (and not those working in shifts) were included to make sure that the (flexible) arrangements were equally available to all employees. This sub-sample was representative of the company population with respect to both gender (χ²(df = 1, Nf = 269) = 3.67, ns) and age distribution (χ²(df = 2, Nf = 269) = 2.13, ns); and (3) Finance; a subsidiary of a consultancy firm in the financial branch (N = 503; 42% response rate). This sub-sample was representative of the company population with regard to both gender (χ²(df = 1, Nf = 503) = 0.17, ns) and age distribution (χ²(df = 2, Nf = 503) = 0.67, ns). In the total study sample, 69% of the participants were male. On average, employees were 40 years old (SD = 10.7). Of all employees, 53% had a university/college degree, 22% had a medium-level vocational training, and 4% had only primary school or lower vocational training. Most employees (80%) were married, and 66% had children living in the
household. Of all participants, 25% had a supervisory function. On average, employees worked 36 hours weekly according to their contract ($SD = 7.6$).

**Measures**

*WH culture* was measured with an 18-item instrument developed by Dikkers et al. (2004), see Table I). Of these 18 items, 9 items were adapted from Thompson et al.’s (1999) questionnaire, and 9 items were newly developed by Dikkers et al. (2004), primarily to cover supervisor’s and colleagues’ support as components of WH culture. The 18 items

<table>
<thead>
<tr>
<th></th>
<th>WH culture “support”</th>
<th>WH culture “hindrance”</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>Managers in this organization are generally considerate towards the private life of employees</td>
<td>.53</td>
</tr>
<tr>
<td>2.</td>
<td>In this organization, people are sympathetic towards care responsibilities of employees</td>
<td>.51</td>
</tr>
<tr>
<td>3.</td>
<td>In this organization it is considered important that, beyond their work, employees have sufficient time left for their private life</td>
<td>.47</td>
</tr>
<tr>
<td>4.</td>
<td>This organization is supportive of employees who want to switch to less demanding jobs for private reasons</td>
<td>.49</td>
</tr>
<tr>
<td>5.</td>
<td><em>My colleagues support employees who want to switch to less demanding jobs for private reasons</em></td>
<td>.61</td>
</tr>
<tr>
<td>6.</td>
<td><em>My colleagues support employees who (temporarily) want to reduce their working hours for private reasons</em></td>
<td>.64</td>
</tr>
<tr>
<td>7.</td>
<td><em>I am comfortable in discussing aspects of my private life with my colleagues</em></td>
<td>.47</td>
</tr>
<tr>
<td>8.</td>
<td><em>My colleagues help me out when I am (temporarily) preoccupied with my care responsibilities</em></td>
<td>.48</td>
</tr>
<tr>
<td>9.</td>
<td><em>My superior supports employees who want to switch to less demanding jobs for private reasons</em></td>
<td>.66</td>
</tr>
<tr>
<td>10.</td>
<td><em>My superior supports employees who (temporarily) want to reduce their working hours for private reasons</em></td>
<td>.67</td>
</tr>
<tr>
<td>11.</td>
<td><em>I am comfortable in discussing my private life with my superior</em></td>
<td>.55</td>
</tr>
<tr>
<td>12.</td>
<td>To get ahead at this organization, employees are expected to work overtime on a regular basis</td>
<td>−.12</td>
</tr>
<tr>
<td>13.</td>
<td><em>In order to be taken seriously in this organization, employees should work long days and be available all of the time</em></td>
<td>−.22</td>
</tr>
<tr>
<td>14.</td>
<td>In this organization, employees are expected to put their job before their private life when necessary</td>
<td>−.22</td>
</tr>
<tr>
<td>15.</td>
<td>Employees who (temporarily) reduce their working hours for private reasons are considered less ambitious in this organization</td>
<td>−.12</td>
</tr>
<tr>
<td>16.</td>
<td>To turn down a promotion for private reasons will harm one’s career progress in this organization</td>
<td>−.15</td>
</tr>
<tr>
<td>17.</td>
<td>Employees who (temporarily) reduce their working hours for private reasons are less likely to advance their career in this organization</td>
<td>−.10</td>
</tr>
<tr>
<td>18.</td>
<td><em>In this organization, it is more acceptable for women to (temporarily) reduce their working hours for private reasons than for men</em></td>
<td>−.05</td>
</tr>
</tbody>
</table>

Items printed in bold were self developed (see Dikkers et al., 2004); factor loadings printed in italic indicate the dimension (support/hindrance) items.

Items 1–4, 12, and 14–17 were adapted from Thompson et al.’s (1999) questionnaire, see text. Items 1–4 represent the sub-dimension organizational support, items 5–8 reflect colleague support, items 9–11 represent supervisor support, items 12–14 reflect time demands, and items 15–18 represent negative career consequences.
represented the previously proposed five WH culture components: (a) organization’s support (items 1–4, Table I, \( \alpha = .82 \)); (b) supervisor’s support (items 9–11, Table I, \( \alpha = .82 \), of which 1 item paralleled an organization’s support item); (c) colleagues’ support (items 5–8, Table I, \( \alpha = .76 \), of which 3 items paralleled supervisor’s items); (d) career consequences (items 15–18, Table I, \( \alpha = .79 \)); and (e) time demands (items 12–14, Table I, \( \alpha = .85 \)). Answer alternatives ranged from “totally disagree” (1) to “totally agree” (5), with higher scores signifying higher levels of support, negative career consequences, and time demands.

Use of WH arrangements. Employees were given a short introduction (in writing) into the available arrangements within the Dutch legal context and within their own company. The current study included four arrangements that were officially available to all employees within the three companies: (1) flextime (i.e., variable starting and finishing times); (2) part-time work; (3) subsidized child care; and (4) parental leave. Employees were asked to indicate for each arrangement whether they (had) used it (0 = “no,” 1 = “yes”). Of these arrangements, two were issued by law (part-time work and parental leave); subsidized childcare arrangements were arranged through collective labour agreements, and flextime was the most frequently offered arrangement in the Netherlands (Den Dulk, 2001; Remery, van Doorne-Huiskes, & Schippers, 2002).

WH interaction was measured with the “Survey Work–home Interaction NijmeGen–SWING” (Geurts et al., 2005): negative WHI was measured with 8 items (\( \alpha = .73 \); e.g., “How often does it happen that your work schedule makes it difficult to fulfil domestic obligations?”); positive WHI consisted of 5 items (\( \alpha = .80 \); e.g., “How often does it happen that after a pleasant working day/week, you feel more in the mood to engage in activities with your spouse/family/friends?”); negative HWI was measured with 4 items (\( \alpha = .74 \); e.g., “How often does it happen that you have difficulty concentrating on your work because you are preoccupied with domestic matters?”); and positive HWI consisted of 5 items (\( \alpha = .84 \); e.g., “How often does it happen that after spending a pleasant weekend with your spouse/family/friends, you have more fun in your job?”). For all four scales, answer alternatives were “never” (0), “sometimes” (1), “often” (2), and “always” (3), with higher mean scores reflecting higher levels of negative WHI/HWI and of positive WHI/HWI.

Parental status. Since, in the Netherlands, only parents of young children are eligible to receive financial childcare compensation and to use parental leave, we distinguished between workers without children living in the household (0), parents of older children (\( \geq 12 \) years old) living at home (1), and parents of young children (\(< 12 \) years) living at home (2).

Statistical analysis

To test hypothesis 1 (WH culture will be best characterized by two general dimensions: “support” and “hindrance”), we compared the fit of four different factor models in the total research sample (\( N = 1,179 \)) using Confirmatory Factor Analysis (CFA; Jöreskog & Sörbom, 1998). In Model 1 (“1-factor structure”), all 18 items of the WH culture measure loaded on one factor. In Model 2 (“5-factor structure”), a 5-factor structure was tested with the first three factors including the items referring to each type of support (from the organization, supervisor, and colleagues, respectively) and the fourth and fifth factor including the items tapping career consequences and time demands, respectively. In Model
3 (“5-1 higher order-factor structure”), the same 5-factor structure was tested, but with one higher-order factor on which all five first-order factors were forced to load. Model 4 (“5-2 higher order-factor structure”) represented the hypothesized model in which the five first-order factors loaded on two higher-order factors, reflecting “support” and “hindrance.”

The fit of these four factor models was compared in terms of their Chi-square ($\chi^2$) value. As it is well known that this test is susceptible to sample size, such that in large samples even minor misspecifications may lead to rejection of models (e.g., Bentler & Bonett, 1980; Byrne, 2001; Hu & Bentler, 1998; Marsh, Balla, & McDonald, 1988), we also employed a range of other fit indexes to assess model fit. These were the Goodness of Fit Index (GFI), the Non-Normed Fit Index (NNFI), the Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA). Values of .90 and over (for GFI, NNFI, and CFI) or .08 and under (RMSEA) signify an acceptable fit (Byrne, 2001). As can be concluded from the results of the CFI in Table II, Model 4 representing the proposed 2-factor structure fitted the data best. To further validate the proposed 2-factor structure of WH culture and the equivalence of parameter estimates (i.e., factor loadings, factor covariances, and item error variances) across samples, gender, and parental status, we employed multi-group confirmatory factor analysis (CFA).

Subsequently, a WH culture-support score was calculated by averaging the scale scores on organization’s, supervisor’s, and colleagues’ support, with higher scores indicating a more supportive WH culture. Also a WH culture-hindrance score was calculated by averaging the scale scores on negative career consequences and time demands, with higher scores indicating a more obstructing WH culture. Hypotheses 2a to 2c (women [2a], parents [2b], and workers from “Public” [2c] will report higher levels of support and lower levels of hindrance than their counterparts) were tested by means of a MANOVA with the two WH culture dimensions (“support” and “hindrance”) as criteria, and gender, parental status, and organization as factors.

Hypothesis 3 (employees who report higher levels of support and lower levels of hindrance are more likely to use WH arrangements) was tested in a series of logistic regression analyses. This type of analysis is especially suitable for dichotomous response variables, such as the variables representing the use of the four WH arrangements examined here (Menard, 1995). A separate analysis was conducted for each WH arrangement, with support and hindrance as well as the interaction between these dimensions as the predictor variables. Following Cohen, Cohen, West, and Aiken (2003), the interaction terms were computed on the basis of the centred main variables. In addition, gender, parental status (only for flextime and part-time work), and organization were controlled for.

To test hypothesis 4a to 4d (employees who report higher levels of support and lower levels of hindrance will experience less negative WHI [4a] and HWI [4b] and more positive WHI [4c] and HWI [4d]), four separate regression analyses were performed with the two WH culture dimensions as well as their interaction as independent variables and each component of WH interaction as dependent variable. Again, gender, parental status, and organization were controlled for.

Results

Factor structure of WH culture

To further examine whether this two-dimensional structure of WH culture varied as a function of organization, gender, and parental status, three multi-group CFAs were performed. Although the $\chi^2$-difference relative to the change in the number of df was
statistically significant when factor loadings, factor covariances, and error variances were set invariant across the three organizations ($\Delta \chi^2 (df=76, Nf=1,179) = 113.52, p < .01$), values for the other fit indices showed that these parameters were highly similar for all three organizations (NNFIs and CFIs for both the unconstrained and constrained model were all .91; RMSEAs were all .06). Constraining the factor loadings, factor covariances and item error variances to be equal across men and women ($\Delta \chi^2 (df=38, Nf=1,179) = 52.05, ns$), and across the three groups with and without (young) children ($\Delta \chi^2 (df=76, Nf=1,179) = 82.36, ns$) did not result in a deterioration in fit. These results indicate that the 2-factor structure of WH culture distinguishing between “support” and “hindrance” was invariant across organizations, gender and parental status (hypothesis 1 supported). Table I presents the factor loadings of the 18 WH culture items on the two general WH culture dimensions.

Descriptive statistics of central research variables

Table III presents the means, standard deviations, and intercorrelations of the two WH culture dimensions, the use of four WH arrangements, and four types of WH interaction. On average, workers within the total sample ($N=1,179$) scored moderately on WH culture-support ($M=3.39, SD=0.58, r = .67$) and WH culture-hindrance ($M=3.22, SD=0.80, r$ (between “career consequences” and “time demands”) = .50, $p < .001$). Flextime was used far more frequently (76%) than part-time work (19%). Of the respondents having young (≤12 years) children living in the household ($N=414$), 30% and 38% used subsidized childcare and parental leave, respectively. Average scores on the four WH interaction were generally low, with the level of negative WHI ($M=.85$) exceeding the level of negative HWI ($M=.47, t_{(df=1, N=1,179)} = 32.32, p < .001$, indicating that negative influences more often originated from work than from home), and the level of positive HWI ($M=1.09$) exceeding the level of positive WHI ($M=.80, t_{(df=1, N=1,179)} = 16.30, p < .001$, signifying that positive influences originated more often from home than from work).

The two WH culture dimensions were substantially related ($r = -.39, p < .001$), demonstrating that high (low) support was associated with low (high) hindrance. Regarding the other correlations, the correlation between positive WHI and positive HWI stood out ($r = .63, p < .001$). Therefore, we conducted a post hoc CFA (Jöreskog & Sörbom, 1998), comparing a 1-factor (with the items of both scales loading on one latent factor) and a 2-factor model (with the items of both scales loading on two separate latent factors). The 2-factor model fitted the data well ($\chi^2 (df=19, N=1,179) = 142.40, GFI = .97, NNFI = .96, CFI = .97$, and RMSEA = .08), and better than the 1-factor model ($\Delta \chi^2 (df=1, N=1,179) = 555.98, p < .001$), indicating that the two types of positive WH interaction were, albeit related, empirically non-identical constructs.
Table III. Means (M), standard deviations (SD), and intercorrelations of all research variables (N=1,179).

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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<tbody>
<tr>
<td>1. Gender$</td>
<td>1.69</td>
<td>–</td>
<td>1–2</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<td>–</td>
<td>–</td>
<td>–</td>
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<td>–</td>
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<tr>
<td>2. WH culture “support”</td>
<td>3.39</td>
<td>0.58</td>
<td>1–5</td>
<td>–.10**</td>
<td>–</td>
<td>–</td>
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<tr>
<td>3. WH culture “hindrance”</td>
<td>3.22</td>
<td>0.80</td>
<td>1–5</td>
<td>.00</td>
<td>–.39**</td>
<td>–</td>
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<td>–</td>
</tr>
<tr>
<td>4. Use of flexible work times</td>
<td>0.76</td>
<td>–</td>
<td>0–1</td>
<td>.03</td>
<td>.14**</td>
<td>–.09*</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>5. Use of part time work</td>
<td>0.19</td>
<td>–</td>
<td>0–1</td>
<td>–.47**</td>
<td>.17**</td>
<td>–.06</td>
<td>.06</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>6. Use of subsidized childcare$$</td>
<td>0.30</td>
<td>–</td>
<td>0–1</td>
<td>–.40**</td>
<td>.14*</td>
<td>.04</td>
<td>.05</td>
<td>.38**</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>7. Use of parental leave$$</td>
<td>0.38</td>
<td>–</td>
<td>0–1</td>
<td>–.33**</td>
<td>.14*</td>
<td>–.25**</td>
<td>.08</td>
<td>.45**</td>
<td>.16**</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>8. Negative WHI</td>
<td>0.85</td>
<td>0.45</td>
<td>0–3</td>
<td>.10**</td>
<td>–.34**</td>
<td>.40**</td>
<td>–.02</td>
<td>–.14**</td>
<td>–.12*</td>
<td>–.08**</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>9. Positive WHI</td>
<td>0.80</td>
<td>0.65</td>
<td>0–3</td>
<td>–.04</td>
<td>.10**</td>
<td>.02</td>
<td>.03</td>
<td>–.04</td>
<td>–.14*</td>
<td>–.07*</td>
<td>.13**</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>10. Negative HWI</td>
<td>0.47</td>
<td>0.40</td>
<td>0–3</td>
<td>–.06</td>
<td>–.01</td>
<td>.01</td>
<td>.06*</td>
<td>.09**</td>
<td>.18**</td>
<td>.07*</td>
<td>.23**</td>
<td>.09**</td>
<td>–</td>
</tr>
<tr>
<td>11. Positive HWI</td>
<td>1.09</td>
<td>0.83</td>
<td>0–3</td>
<td>–.13**</td>
<td>.10**</td>
<td>–.03</td>
<td>–.03</td>
<td>.11**</td>
<td>.04</td>
<td>.01</td>
<td>.03</td>
<td>.63**</td>
<td>.11**</td>
</tr>
</tbody>
</table>

*p < .01; **p < .001.

Variables 4 to 7 are dichotomized, therefore their means represent percentages.

$: 1 = women, 2 = men; descriptive statistics of “parental status” can be obtained from the first author.

$$: The means, standard deviations, and correlations involving this variable were based on the participants having young children (<12 years old, N=414) and not on the full sample.
Table IV. MANOVA with WH culture (support and hindrance) as dependent variables and gender, parental status, and organization as factors.

<table>
<thead>
<tr>
<th>MANOVA</th>
<th>ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>WH culture</td>
<td></td>
</tr>
<tr>
<td>F*</td>
<td>Support F</td>
</tr>
<tr>
<td>Gender</td>
<td>1.60</td>
</tr>
<tr>
<td>Parental status</td>
<td>2.55*</td>
</tr>
<tr>
<td>Organization</td>
<td>33.99***</td>
</tr>
</tbody>
</table>

* = Wilks’ Lambda multivariate F-value.

** Associations of WH culture with demographic and organization characteristics **

Table IV presents the results of the MANOVA examining the relationships of WH culture-support and WH culture-hindrance with gender, parental status, and organization. Gender was not significantly related to WH culture (F(df = 2, N = 1,179) = 1.60, ns) indicating that men and women did not differ in their perceptions of WH culture (hypothesis 2a rejected). Although parental status had a significant main effect on WH culture (multivariate F(df = 4, N = 1,179) = 2.55, p < .05), its main effect on each separate WH culture dimension was not significant (univariate Fsupport (df = 2, N = 1,179) = 1.60, ns; Fhindrance (df = 2, N = 1,179) = 2.26, ns), signifying that parents did not perceive the WH culture as more supportive or less obstructing than workers without children (hypothesis 2b rejected). However, organization was significantly associated with both the support dimension (univariate F(df = 2, N = 1,179) = 16.74, p < .001) and the hindrance dimension (univariate F(df = 2, N = 1,179) = 66.31, p < .001) of WH culture (multivariate F(df = 4, N = 1,179) = 33.99, p < .001). In accordance with hypothesis 2c, post hoc Bonferroni tests revealed that workers from the Public organization reported higher levels of WH culture-support (M = 3.55) and lower levels of WH culture-hindrance (M = 2.68) compared to workers from the two private organizations, Finance (Msupport = 3.43, and Mhindrance = 3.25) and Plant (Msupport = 3.19, and Mhindrance = 3.52).

Table V. Results of four logistic regression analyses for the effects (regression coefficients, Bs) of the WH culture dimensions (support and hindrance) on the use of four WH arrangements.

<table>
<thead>
<tr>
<th>The use of WH arrangements</th>
</tr>
</thead>
<tbody>
<tr>
<td>WH culture “support”</td>
</tr>
<tr>
<td>Flextime</td>
</tr>
<tr>
<td>.48***</td>
</tr>
<tr>
<td>WH culture “hindrance”</td>
</tr>
<tr>
<td>Support*Hindrance</td>
</tr>
<tr>
<td>-2 LL (total)</td>
</tr>
<tr>
<td>R² (total)</td>
</tr>
</tbody>
</table>

* = .05; ** = .01; *** = .001.

Gender, organization, and parental status (only for flextime and part time work) were controlled for in these analyses.

* The use of childcare and parental leave was examined for parents of young (< 12 years) children only (N = 414).
Associations of WH culture with the use of WH arrangements

The results of the logistic regression analyses with WH culture-support and WH culture-hindrance as independent variables and the use of the four WH arrangements as the dependent variables are presented in Table V. Gender, organization, and parental status (only for flextime and part-time work) were controlled for. Of the three predictor variables, only WH culture-support explained a significant part ($B = .48, p < .001$) of the variance in the use of flextime. This indicated that employees who reported higher levels of WH culture-support were more likely to use flextime. Concerning the use of part-time work, all three predictor variables were significantly related to the use of this WH arrangement: employees were more likely to work part time, the more supportive they perceived the WH culture ($B = .63, p < .001$) and, contrary to our hypothesis, the more obstructing they perceived the WH culture ($B = .39, p < .05$). To enable an interpretation of the significant interaction effect between support and hindrance ($B = -.22, p < .05$), we followed a median split procedure for each WH culture dimension and calculated the mean scores for all possible four combinations of low and high support and low and high hindrance. The use of part-time work appeared to be highest when support was high and hindrance was low. Regarding the use of childcare (only based on data from parents of young children, $N = 414$), only WH culture-support explained a significant part of the variance in this concept ($B = .56, p < .05$), indicating that workers perceiving the WH culture as more supportive were more likely to use subsidized child care. None of the predictor variables was significantly related to the use of parental leave.

In sum, hypothesis 3 that workers who report higher levels of WH culture-support and lower levels of WH culture-hindrance are more likely to use WH arrangements was supported for the support dimension and the use of three out of four WH arrangements, namely flextime, part-time work, and subsidized childcare. WH culture-hindrance was only associated significantly with the use of part-time work, but not in the hypothesized direction: it appeared that those reporting higher hindrance were more likely (rather than less likely) to work part time.

Associations of WH culture with WH interaction

Table VI presents the results of four separate regression analyses, each with the two WH culture dimensions and their interaction as predictor variables, with gender, organization, and parental status as control variables. In each analysis, one of the four WH interaction
components served as the dependent variable. Regarding negative WHI, both support, hindrance, and their interaction contributed significantly to the variance explained. In accordance with hypothesis 4a, workers experienced less interference from work the more they perceived the WH culture as supportive ($\beta = -.20, p < .001$) and the less they perceived it as obstructing ($\beta = .27, p < .001$). To enable an interpretation of the weak but significant interaction effect ($\beta = -.06, p < .05$), a median split procedure for each WH culture dimension revealed that the level of interference was low especially when support was high and hindrance was low. In contrast with negative WHI, none of the predictor variables was significantly related to negative HWI (hypothesis 4b rejected). With respect to positive WHI and positive HWI, only WH culture-support was related significantly ($\beta = 0.14, p < .001$, and $\beta = 0.08, p < .05$, respectively), indicating that workers who perceived the WH culture as more supportive, experienced higher levels of positive interaction between work and home (hypotheses 4c and 4d supported).

**Discussion**

Studying the existence and psychological meaning of WH culture is a challenging endeavour in research into the WH interface. Pioneering work has been undertaken by Thompson and co-workers (1999; Thompson & Prottas, 2006) and Allen (2001). Thompson provided a definition of WH culture and a first survey-based operationalization, which was further elaborated upon by Allen (2001). As often is the case when studying a relatively new field, these early studies give rise to some conceptual and methodological concerns, for instance, with respect to construct validity and measurements issues.

In a first effort to overcome such limitations, Dikkers et al. (2004) provided some evidence for a 2-factor structure of WH culture: “support” reflecting employees’ perceptions of organization’s, supervisor’s, and colleagues’ responsiveness to work–family issues and to the use of WH arrangements; and “hindrance” reflecting employees’ perceptions of career consequences and organizational time demands that may prevent them from using WH arrangements. However, given the design of this 2004 study, it remained unclear whether this 2-factor structure was invariant across different organizations. Therefore, one purpose of the current study was to find out whether the 2-factor structure of WH culture was robust across organizations as well as across gender and parental status. Another purpose of this study was to examine the associations of these two WH culture dimensions with demographic and organization characteristics, the use of WH arrangements, and four dimensions of WH interaction.

**Factor structure and typology of WH cultures**

The results of CFA lend credit to the notion that WH culture, as measured with the 18-item questionnaire (Table I), is indeed represented by the two general dimensions “support” and “hindrance,” and this 2-factor structure of WH culture was invariant across the three organizations, gender, and parental status. These results underline the robustness of this 2-factor structure of WH culture across a wide variety of workers.

**Associations of WH culture with demographic and organization characteristics**

Regarding the demographic characteristics, our results revealed that neither men and women nor parents and non-parents differed in their perceptions of WH culture. In accordance with our expectations, workers from the public organization perceived the WH
culture as more supportive and less obstructing as compared with workers from the two private organizations. This finding suggests that organizations that are owned or controlled by the Dutch government may be more active in assisting their employees with care-giving responsibilities than are companies that are not under direct control of the Dutch government. Thus there may be a distinct difference in WH culture between public and private organizations.

**WH culture and the use of WH arrangements**

As regards the use of WH arrangements, the level of support seems to be the most crucial WH culture component. In accordance with our expectations, employees who perceived higher levels of organization’s, supervisor’s, and colleagues’ responsiveness to work–family issues and to the use of WH arrangements, were considerably more likely to use flextime, part-time work, and subsidized child care. Employees’ perceptions of negative career consequences and high time demands did not seem to prevent them from using certain facilities, as WH culture-hindrance was not negatively associated with the use of WH arrangements. Hindrance was only related to the use of part-time work, but not as an obstructing factor that may have prevented workers from working part time. In fact, part-time workers reported higher (rather than lower) levels of hindrance. A plausible explanation for this finding is that one’s judgments of WH culture-hindrance is affected by one’s actual experiences with the use of part-time work. Whereas part-time workers had the opportunity to experience the degree to which their organization actually endorses this facility, workers not using this facility may easily judge this aspect more positively. The significant interaction effect between support and hindrance on part-time work showed that, as expected, working part time occurs most likely in a WH culture that is characterized by high support and low hindrance. Unexpectedly, WH culture was not significantly related at all to the use of parental leave. Indeed, the use of parental leave was most strongly predicted by gender (with mothers using this facility much more than fathers).

**WH culture and WH interaction**

Also regarding WH interaction, the level of support was a crucial WH culture dimension. As hypothesized, employees who perceived higher levels of organization’s, supervisor’s, and colleagues’ support regarding work–family issues and the use of WH arrangements, experienced less interference from work, more positive influence from work, and, although to a lesser extent, more positive influence from home. Perceived hindrance was only, albeit strongly, related to negative WHI, indicating that, as hypothesized, employees experiencing more negative career consequences and higher time demands experienced more interference from work. The significant interaction effect between support and hindrance on negative WHI revealed that the level of interference from work was lowest in a WH culture that was characterized by high support and low hindrance.

**Limitations and suggestions for future research**

Five limitations and suggestions for future research should be mentioned. First, the response rates of the three organizations incorporated in this study were moderately low (39% to 42%), which is in line with the findings in Baruch’s (1999) review of response rates in academic studies. Fortunately, the three samples derived were representative of the companies’ population as regards gender and age. However, our data did not allow us to
perform a more detailed response/non-response analysis. Therefore, we cannot exclude the possibility that selective non-response resulted in a biased sample.

A second issue concerns our measure of the use of WH arrangements. Participants indicated whether they used or had used a specific arrangement, reflecting not only present but also possible past use of such arrangements. Thus, it may be that past use of WH arrangements has affected current judgments of the WH culture ("reverse causation") rather than the other way around. Post hoc analysis revealed that of all participants reporting that they (had) worked part time, 90% currently worked part time (similar tests could not be performed for the other three arrangements), indicating a low discrepancy between past and present use of this facility in the present study. Nevertheless, for future research it is recommended to differentiate between the actual and previous use of WH arrangements.

Third, our study relied exclusively on self-report measures, which might have resulted in an overestimation of the associations among the variables due to common method variance. However, the fact that some relationships were found while others were not argues against the influence of common method variance in our study. Furthermore, by demonstrating that using self-reports does not guarantee finding significant results, and that monomethod correlations are not by definition higher than multimethod correlations, Spector (2006) concludes that "the popular position suggesting common method variance automatically affects variables measured with the same method is a distortion and oversimplification of the true state of affairs" (p. 221). All in all, we do not believe that the exclusive use of self-reports severely biased our findings, although the use of more "objective" indicators of, for instance, WH culture and the use of WH arrangements could provide interesting insights in future research.

A fourth issue that should be discussed is our conceptualization of WH culture as the shared assumptions, beliefs, and values regarding the extent to which an organization supports and values the integration of employees' work and private lives (Thompson et al., 1999). This definition might suggest that, within a given organization, there is only one WH culture. It is likely, however, that WH culture may vary within organizations, for instance, across departments and work groups. This interpretation is supported by the fact that two of our three WH culture-support measures (i.e., supervisor and colleague support) pertain to department-level characteristics. In this sense, it might be better to reconceptualize WH culture as a phenomenon that does not necessarily apply to the organization as a whole, but rather to particular homogenous subgroups within that organization: departments, work groups, teams, and so on.

Finally, the use of a cross-sectional design does not allow us to make any causal inferences about the relations among WH culture, the use of WH arrangements, and WH interaction. Therefore, different interpretations of the same finding were plausible. A longitudinal design may enable us to investigate and compare the plausibility of alternative causal pathways connecting WH culture with the use of WH arrangements and WH interaction (e.g., do workers profit from a more supportive and less obstructing culture in terms of less interference from work, and/or does low interference lead to more favourable perceptions of the two WH culture dimensions?; see also Taris & Kompier, 2003). If longitudinal research reveals that workers may profit from a more supportive and less obstructing WH culture in terms of a higher utilization of, for instance, part-time work and less interference from work, this would have important practical implications for organizations.
Contributions and implications of this study

We believe that, despite its limitations, the current study contributes to previous research on WH culture in at least two regards. First, we have provided substantial support for a 2-factor structure of a (previously developed; Dikkers et al., 2004) WH culture measure that differentiates between “support” and “hindrance” regarding work–family issues and the use of WH arrangements. This 2-factor structure appeared to be robust across three different organizations, gender, and parental status. Hence, the 18-item questionnaire, for the first time fully presented in the current study (see Table I), seems to be a reliable tool to characterize companies’ WH culture across a wide variety of workers. Preliminary support for the validity of these two WH culture dimensions is that they both showed significant relationships with organization characteristics, the use of WH arrangements, and WH interaction. It was shown that WH culture differed in terms of higher support and lower hindrance in the public organization from that in the private companies. In general, the support dimension of WH culture seemed to be more crucial than the hindrance dimension in explaining the use of WH arrangements (flextime, part-time work, and childcare) and the experience of WH interaction (negative WHI, and positive WHI and HWI). However, in a WH culture typified by high support and low hindrance, workers were most likely to work part time and were better able to prevent negative work experiences from impeding their private life. We could conclude that a supportive WH culture characterized by high responsiveness of the organization, supervisor, and colleagues to work–family issues is to be preferred in organizations if employers want to minimize WH interference, optimize positive interaction between work and home, and to boost the use of WH arrangements. Employers are further advised to minimize workers’ fear that the use of such arrangements will have negative career consequences and to weaken the link between working long hours and career prospects, as this approach may additionally promote the use of specific WH facilities (e.g., part-time work), and prevent WH interference. Although in practice such a change of culture may be difficult to achieve, the present research does suggest the benefit of attempts in this direction in terms of the use of WH arrangements and the WH interface.

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References


