



Boundary Management Preferences, Boundary Control, and Work-Life Balance among Full-Time Employed Professionals in Knowledge-Intensive, Flexible Work

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ABSTRACT

Profound changes are taking place within working life, where established boundaries between work and personal life are challenged by increased global competition, ever-faster changing markets, and rapid development of boundary transcending information and communication technologies (ICT).

The aim of this study was to investigate boundary management preferences in terms of keeping work and personal life domains separated or integrated, that is, segmenting or blending of domains, the perception of being in control of one's preferred boundaries, and work-life balance among employees at a Swedish telecom company (N = 1,238, response rate 65%, men 73%, mean age 42 years). Psychosocial work factors, individual characteristics, sociodemographic factors, and work-life balance were investigated in relation to boundary management preferences and perceived boundary control.

For high boundary control among segmenters, nearly all the studied psychosocial work factors were significant. Among integrators, this was the case only for clear expectations in work. For both groups, the individual capacity for self-regulation was associated with high boundary control. Regarding sociodemographic factors, cohabiting women with children who preferred segmentation had low boundary control. Finally, there was a main effect of boundary control on work-life balance. In particular, male segmenters perceiving high boundary control had better work-life balance than all others.

Conclusions of the study are that segmenters need external boundaries in work for successful boundary management. Moreover, self-regulation seems a crucial boundary competence in knowledge-intensive, flexible work. Results are of value for health promotion in modern work organizations in supporting employees achieving successful boundary control and subsequent work-life balance.

KEY WORDS

Boundaryless work / family type / gender / integration / nonwork / segmentation / self-regulation

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Introduction

During the past decades, profound changes have taken place within working life, as global competition has increased along with the need to react quickly to changing markets. This has, in turn, set the trend for a new type of employee not only with a greater span of autonomy but also increased accountability (Allvin et al., 2011; Peters et al., 2009, 2014), often referred to as boundaryless work (Allvin et al., 2011, 2013) or ‘New Working Conditions’ (Peters et al., 2009). Moreover, the rapid development of boundary transcending information and communications technologies (ICT), teleworking, and flexworking systems has led to more flexible forms of work organization. ICT supports working outside the confines of an office at almost any time of the day or night (Towers et al., 2006) and the smartphone is one of the newest communication tools for work (Rennecker & Godwin, 2005). Thus, through an increased use of ICT, employees can complete their work regardless of time and space (Grant et al., 2013) and can also be available for their employers at all hours (Wajcman et al., 2008). Taken together, this marks a fundamental shift in the boundaries between the work and personal life domains (Duxbury & Smart, 2011; Madden & Jones, 2008) from the traditional, external to a more internal, individual regulation of work. This applies particularly to professionals who typically set their own work schedules and self-manage how they work in time and space (Allvin et al., 2013). As such, they can be said to have high time-spatial flexibility (Peters et al., 2009, 2014). Consequently, these professionals need to manage the increasingly blurred boundaries between their work and personal lives and construct a well-functioning balance between the two. In light of the increased work intensity in contemporary working life (Appelbaum et al., 2000; Fleetwood, 2007; Lewis & Smithson, 2006; Peters, 2000; Van Echtelt et al., 2007), however, we may ask to what extent employees perceive that they are in control of the boundaries between work and personal life, and in particular, what factors that matter for the perception of boundary control.

The aim of the present study was to investigate boundary management preferences, the perception of boundary control, and work-life balance among full-time employed professionals in knowledge-intensive, flexible work. In particular, the study focus was on factors in both the work and personal life domains assumed to be of importance for boundary control, as well as the association between boundary management preferences, boundary control, and the experience of work-life balance.

Theoretical background

Boundary management preferences

Given the rapid and ongoing developments in working life, there has been an increased interest within psychology and organizational research in how boundaries between work and nonwork are constructed and maintained. Central within the boundary management framework is that boundaries are constructed both individually and collectively, and are characterized by features such as permeability, flexibility, and boundary management preferences (Ashforth et al., 2000; Bulger et al., 2007; Campell Clark, 2000; Matthews & Barnes-Farrell, 2010; Matthews et al., 2010, 2014; Nippert-Eng, 1996; Winkel & Clayton, 2009).

From a boundary perspective, individuals construct boundaries, both psychologically and behaviorally, in order to organize their work and personal life domains (Campbell Clark, 2000; Nippert-Eng, 1996). These boundaries can be analyzed along a continuum where employees have preferences for either strong or more permeable boundaries between work and nonwork. Some individuals prefer to keep work and personal life separate, thus constituting two separate segments. They may, for instance, have separate e-mail accounts for work and personal use, turn their cell phone off after the work day, and take care of personal matters only at breaks or during leisure (Kossek et al., 2012; Kreiner et al., 2009). As such, they represent what in the literature is referred to as a boundary management preference for segmentation (Campbell Clark, 2000; Nippert-Eng, 1996). Others do not mind blending work and personal life, that is, they prefer to integrate the two domains. For instance, they send text messages to their children from the office or take work calls during leisure (Kreiner et al., 2009). Hence, the degree of permeability reflects how strong or weak the boundaries between an individual's work and nonwork domains are. The borderland between these two domains can be regarded as the place where individuals are trying to balance demands and expectations and, thus, engage in the process of "boundary work" (Campbell Clark, 2000).

Boundary control

However, it may not always be possible for employees to enact their preferred boundary management strategy, depending on the opportunities as well as constraints and/or demands of the environment. In particular, professional workers can be assumed to perceive an increased pressure for integration, not only given their increased autonomy but also accountability (Allvin et al., 2013; Peters et al., 2009, 2014) and work intensification (Appelbaum et al., 2000; Fleetwood, 2007; Lewis & Smithson, 2006; Peters, 2000; Van Echtelt et al., 2007). As such, enacting one's preferred boundary management strategy might not always be under the individual worker's control.

This can be regarded as vital, as being in control of one's preferred boundary management strategy has been shown, in the few studies as yet, to be more important for both work-family conflict and work-life balance than whether the individual prefers to segment or integrate work and personal life (Kossek et al., 2006, 2012). In the present study, we refer to control in the context of work and nonwork boundaries, building on the concept of job control (Karasek, 1979; Karasek & Theorell, 1990) as further developed by the work of Kossek and colleagues (2006), as "psychological job control" (Kossek et al., 2006, p. 350) and defined as "the degree to which an individual perceives that she/he can control where, when, and how s/he works" (*ibid.*).

Work-life balance

Concepts frequently used to refer to work/nonwork interference are work-family conflict (WFC) and family-work conflict (FWC). Conflict implies that employees experience inter-role conflict (Frone, Russel & Cooper, 1997a; Frone, Yardley & Markel, 1997b) when demands from work and family domains are mutually incompatible (Greenhouse & Beutell, 1985) and they have insufficient time and/or energy, that is, resource scarcity,



to perform work and family roles successfully (Frone et al., 1997a,b; Michel et al., 2011). Other commonly used terms to describe the conflict between work and family demands are work-home conflict (WHC) (Berntsson et al., 2006; Emslie et al., 2004; Emslie & Hunt, 2009) or work-home interference (WHI) (Geurts et al., 2005). Previous studies on WFC, FWC, WHC, and WHI have focused on the possible consequences for stress, health, wellbeing, and performance (Allen, 2001; Allen et al., 2000; Netemayer et al., 1996), as well as on factors that can modify the conflict between work and personal life or create synergy and balance (Chen et al., 2009; Greenhaus, 1988; Kline & Cowan, 1988; Peters et al., 2009; Shockley & Allen, 2007).

Recently, the concept work-life balance (WLB) has been predominant, maybe as it is not only just a matter of conflict but also what creates balance. Achieving balance between work and personal life is, according to a recent OECD-report (2013, p. 50), “a key component of people’s wellbeing.” In the present study, we refer to work-life balance in terms of overall satisfaction with the balance between work and nonwork rather than conflict or lack of conflict. In this context, it is important to notice that we do not focus on family as the specific nonwork domain. In contemporary society, individuals can be assumed to have many other interests, priorities, and responsibilities outside work than their family only. As such, our study uses the terms personal life or nonwork to encompass family as well as other people, like for instance friends, and other aspects of importance in individuals’ personal lives that needs to be balanced in relation to work.

Boundary management preferences, boundary control, and work-life balance

It might be assumed that the possibilities for controlling one’s work and personal life situation increase when the external regulation in work decreases, for instance, in terms of scheduling work at times and places in accordance with individual preferences and overall life situation. As such, less rigid demarcations around work would favor variation and individual choices. However, it could also be argued that fixed working hours might be experienced as an advantage because the individual then know the framework for the everyday planning. Indeed, the transition from an external to a more internal, individual regulation of work in terms of increased time-spatial flexibility, in combination with the technological revolution, has been associated with an intensification of time demands and time greediness (Appelbaum et al., 2000; Fleetwood, 2007; Lewis & Smithson, 2006; Peters, 2000; Van Echtelt et al., 2007) described as “flexible hours, but boundless time demands” (Ellingsaeter, 2003, p. 436). As such, increased flexibility in work may be viewed as a double-edged sword (Peters et al., 2009). From this follows that if individuals fail to manage the boundaries between work and personal life, then their work-life balance can be affected.

Aim and hypotheses

The purpose of the present study was twofold. Firstly, we aimed to investigate boundary management preferences, that is, segmentation and integration, in relation to psychosocial work factors, individual characteristics, and sociodemographic factors that can be assumed to be of importance for boundary control. The second aim was to study the

association between boundary management preferences, boundary control, and work-life balance.

Three hypotheses were formulated:

Hypothesis 1

- a) Segmenters, due to their preference for strong boundaries between work and personal life, can be expected to organize their work in time and space in line with traditional work organization. As such, it is assumed that segmenters will work during regular work hours and at the work place to a higher extent than integrators.
- b) Integrators, on the other hand, are assumed to work more boundaryless in both time and space, that is, at other times and places than during regular work hours and at the work place, to a higher extent than segmenters.

Hypothesis 2

- a) Working outside regular work hours and outside the workplace is expected to be associated with perceiving low boundary control among segmenters.
- b) Psychosocial work factors that broadly reflect goal clarity, support, and decision latitude in work are expected to be associated with high boundary control within both boundary management preference groups.
- c) As there has been a transition from an external toward a more internal regulation of work for in particular professionals (Allvin et al., 2013; Peters et al., 2009), it can be expected that the individual capacity for self-regulation in work will be associated with high boundary control within both boundary management preference groups.

Hypothesis 3

- a) As boundary control has been found to be more important for both work-family conflict and work-life balance than whether the individual prefers to segment or integrate work and personal life (Kossek et al., 2006, 2012) a main effect of boundary control on work-life balance is expected.

Method

Study participants

The data collection was conducted at a work unit at a large Swedish telecom company active at the global market. During March 2010, a web-questionnaire was sent to all employees at the specific work unit (N = 1,238, response rate 65%, i.e., 808 responses). In the total sample, 73% were male and the mean age was 42 years. Approximately 79% was cohabiting, and 60% had children living in the household. The educational level in the sample was high, and 73% had a university degree. Furthermore, 10% had a managerial position. A vast majority, 99%, had a permanent employment contract. The contractual work hours per week were on average 39.6 hours (SD 8.69) and the actual weekly work hours 41.71 (SD 8.75). There were no significant differences in terms of age or gender between respondents and non-respondents.

Study variables

Boundary management preferences

In order to measure respondents preferences for either segmentation or integration, they were given the following prompt (Kossek et al., 2006): “With the increasing demands of work and home, employees may work in different ways to handle these demands, all in all, do you currently see yourself as someone who tries to keep work and personal roles separated most of the time, or someone who tries to keep them integrated?” and asked to indicate their agreement with the items: “I try to separate the roles” and “I try to integrate the roles” (1, Strongly disagree to 5, Strongly agree).

A grouping variable of boundary management preferences, that is, segmentation and integration, was formed on the basis of whether the respondents agreed with either separating or integrating the roles. Respondents were classified as segmenters if they agreed with separating the roles (3–5) and disagreed with integrating them (1–2). Consequently, respondents were classified as integrators if they agreed with integrating the roles (3–5) and disagreed with separating them (1–2).

One hundred forty respondents who had given answers of either strongly agreeing or strongly disagreeing with both boundary management preferences were excluded from the following analyses. This resulted in 550 respondents who were classified as segmenters and 123 as integrators. As such, the final study sample consisted of 673 respondents.

Boundary control

For the measure of boundary control, respondents were asked to indicate their agreement with the following item: “I manage well with separating/integrating the roles” (1, Strongly disagree to 5, Strongly agree).

The variable was dichotomized into low boundary control (1–3) and high boundary control (4–5).

Boundary management preference and boundary control

The grouping variable of segmentation and integration was combined with the variable representing low and high boundary control. As can be seen in Tab. 1, this yielded a new variable consisting of four groups representing low versus high boundary control among segmenters and integrators, respectively.

Psychosocial work factors

Work in time and space

Weekly work hours were measured with the following open-ended questions:

- “How many hours per week is your contractual working time?”
- “How many hours have you been working per week, on average, during the past month?”

Table 1 Frequencies and proportions of segmenters and integrators as divided by low and high boundary control (BC) (n = 673)

	Low BC n = 345 (52.9%)	High BC n = 328 (48.7%)
Segmentation n = 550 (81.7%)	Low BC-segmenters 272 (49.5%)	High BC-segmenters 278 (50.5%)
Integration n = 123 (18.3%)	Low BC-integrators 73 (59.3%)	High BC-integrators 50 (40.7%)

A five-graded scale (Allvin et al., 2013) measuring when and where the respondents performed their work during a normal working week was used, where several time points and places could be stated. The scale range was 1, Almost never to 5, Almost always.

Work characteristics

Questions on work factors assumed to be of importance for boundary control were included. These questions have in large been developed within previous research of boundaryless work (Allvin et al, 2011, 2013; Hanson, 2004), while others correspond to the dimensions of social support and decision latitude within the demand-control-support model (Karasek & Theorell, 1990).

The factors were measured on a five-graded scale and were as follows: goal clarity, guidelines in work, and clear expectations, knowing to whom one is accountable in work, social support, feed-back, and decision latitude.

The scale range was 1, Almost never to 5, Almost always.

Individual characteristics

The individual capacity for self-regulation in work was measured in terms of task completion ambiguity (Hellgren et al., 2008) and items reflecting a self-governing competence (Hanson, 2004).

The scale range was 1, Strongly disagree to 5, Strongly agree.

Work-life balance

The measure of work-life balance (Frone et al., 1992) was: “Are you satisfied with your overall life situation in terms of the balance between your work and personal life?”



Sociodemographic variables

Age, gender, family type, and educational level were included as sociodemographic variables.

Statistical analyses

Independent two-tailed *t*-tests, Chi-square tests and one-way analysis of variance (ANOVA) with Sheffé test were performed. Moreover, two separate discriminant function analyses were conducted, one for each boundary management preference group. Discriminant function analysis predicts a categorical dependent variable, that is, grouping variable, by one or more continuous or binary variables. As such, the analysis is suitable for determining whether a set of variables is effective in predicting category membership. The analysis produces discriminant function scores that show how well the included variables predict membership in a specific group, as in the present study, low or high boundary control. SPSS version 20 was used for all the included analyses.

Results

Boundary management preferences, boundary control, and gender

Overall, as can be seen in Tab. 2, a vast majority preferred segmentation, and a significant majority perceived low boundary control. When boundary control was analyzed by gender, it was found that male segmenters perceived high boundary control to a significantly higher extent than both female segmenters and male and female integrators ($\chi^2 = 9.64$, *df* 12, $p < 0.05$). There were no differences in boundary control between female segmenters and both male and female integrators.

Boundary management preferences, boundary control, and work in time and space

Segmenters worked at the work place to a significantly higher extent than the integrators (Tab. 2). As there were no differences in work during regular work hours between segmenters and integrators, Hypothesis 1a was only partially supported. Further, integrators worked both outside regular work hours and at other places than the work place to a significantly higher extent than the segmenters. Hence, Hypothesis 1b was confirmed.

Regarding work hours, it was found that integrators had significantly higher actual weekly work hours than the segmenters. This finding can be explained by that both segmenters and integrators worked during regular work hours to the same extent, whereas integrators also worked more outside regular work hours, that is, during evenings in the working week as well as weekends.

Table II Minimum (min) and maximum (max) scores for all the study variables as well as mean scores and standard deviations (sd) for both boundary management preference groups, that is, segmentation and integration, and results from t-tests and χ^2 tests

Variables	Min	Max	Segmentation		Integration		t-value df 671	χ^2 df 3	P
			M	SD	M	SD			
1. Boundary control (1, Low control)	1	2	1.5	0.5	1.4	0.5	2.0		0.05
<i>Work in time and space</i>									
(1, Almost never; 5, Almost always)									
2. Contractual weekly work hours	20	40	38.3	2.2	38.4	1.7			
3. Actual weekly work hours	20	61	40.3	3.9	41.3	4.1			
4. Work regular work hours	1	5	4.9	0.4	4.9	0.3	.32		n.s
5. Work evenings during the work week	1	5	2.2	1.0	2.6	1.1	-3.7		0.000
6. Work weekends	1	5	1.7	0.8	1.9	0.9	-2.6		0.01
7. Work at the workplace	1	5	4.8	0.5	4.8	0.5	.63		n.s
8. Work at several different workplaces belonging to the employer	1	5	1.9	1.1	2.2	1.2	-3.0		0.05
9. Work at clients/customers	1	5	1.0	0.3	1.1	0.5	1.7		n.s
10. Work at travels to and from work	1	5	1.3	0.7	1.5	0.8	-2.2		0.05
11. Work at business travels	1	5	1.8	0.9	2.0	1.0	-2.6		0.01
12. Work from home	1	5	2.3	1.0	2.7	1.0	-4.3		0.000
13. Work from other places	1	5	1.1	0.4	1.1	0.5	-3.7		
<i>Psychosocialworkfactors</i>									
(1, Almost never; 5, Almost always)									
14. "Are there clearly defined goals for what to achieve in your work?"	1	5	3.9	0.9	3.8	1.0	1.3		n.s
15. "Are there clear guidelines in your work?"	1	5	3.2	1.1	3.0	1.2	1.8		n.s
16. "Do you know exactly what is expected of you in your work?"	1	5	3.9	0.9	3.9	0.9	-3.1		n.s
17. "Is it clear to whom you are accountable in your work?"	1	5	4.2	0.9	4.2	1.0	-0.06		n.s
18. "Are there people at your work place to whom you can talk if you have problems in your work?"	1	5	4.2	0.8	4.3	0.7	-2.7		0.05

Continued ...

Variables	Min	Max	Segmentation		Integration		t-value df 671	χ^2 df 3	P
			M	SD	M	SD			
19. "Do you get enough feed-back on your work performance?"	1	5	3.2	0.9	3.2	1.0	0.00		n.s
20. "Can you make decisions that are important for your work?"									
<i>Individual characteristics</i>									
(1, Strongly disagree; 5, Strongly agree)									
21. "I can judge for myself when a work assignment is finished."	1	5	3.6	1.0	3.6	1.0	-0.01		n.s
22. "I have a good ability to work independently."	1	5	4.4	0.6	4.5	0.7	-1.6		n.s
23. "I find it easy to organize my work in an efficient manner."	1	5	3.6	0.8	3.5	0.9	1.5		n.s
24. "I find it easy to say no and set limits."	1	5	3.0	0.9	2.9	0.9	1.3		n.s
<i>Sociodemographic factors</i>									
25. Age	28	60	46	10	43	9	-3.5		0.001
26. Gender	1	2	1.3	0.4	1.3	0.5	-1.8		n.s
(1 = Male)									
27. Family type	1	4					2.1		n.s
(1 = Cohabiting with children;									
2 = Cohabiting without children;									
3 = Single with children;									
4 = Single without children									
28. Education	1	4	2.7	0.5	2.8	0.5	-1.8		0.05
(4 = University degree)									
29. Work-life balance	1	5	3.6	0.9	3.8	1.0	-1.9		n.s (0.52)
(1, Almost never; 5, Almost always)									

Range of scale: 1, Almost never; 5, Almost always.

What matters for boundary control?

Turning to the results of the discriminant analyses, an overall discriminant significance was found for the segmentation boundary preference group (Wilks lambda = 0.88, $\chi^2 = 69.78$, df 18, $p < 0.000$, eigenvalue 1.4, and canonical correlation 0.35). The analysis classified 65% of the segmenters correctly into low or high boundary control. For the integration boundary preference group, no overall significance emerged; however, single factors displayed significant discriminant function scores. Although no overall significance was found, 69% of the integrators were correctly classified into low or high boundary control, which is more than a random classification (Tabachnik & Fidell, 2001).

As can be seen in Tab. 3, for the segmenters, working outside regular work hours—both evenings during the working week and weekends—as well as from other places than the work place—especially from home—was significantly associated with the perception of low boundary control. As such, Hypothesis 2a was confirmed.

Further, for the segmenters, nearly all of the psychosocial work factors were significantly associated with the perception of high boundary control. For integrators, this was only the case regarding clear expectations in work. Hence, Hypothesis 2b was only partially supported.

Both for segmenters and integrators, as expected, the individual capacity for self-regulation in work significantly predicted high boundary control. Thus, Hypothesis 2c was supported.

Table III Discriminant function scores for the factors that significantly predict respondents into low versus high boundary control within each boundary management preference group, that is, segmentation and integration (n = 673)

Study variables	Segmenters n = 550	Integrators n = 123
Work evenings during the working week	-0.53	
Work weekends	-0.50	
Work at the work place	0.31	
Work at different places belonging to the employer	-0.27	
Work at travels to and from work	-0.28	
Work from home	-0.42	
"Are there clearly defined goals for what to achieve in your work?"	0.26	
"Do you know exactly what is expected of you in your work?"	0.35	0.33
"Is it clear to whom you are accountable in your work?"	0.33	
"Are there people at your work place to whom you can talk if you have problems in your work?"	0.47	
"Do you get enough feed-back on your work performance?"	0.30	
"I can judge for myself when a work assignment is finished."	0.41	0.44
"I have a good ability to work independently."	0.24	0.46
"I find it easy to organize my work in an efficient manner."	0.40	0.40
"I find it easy to say no and set limits."	0.31	0.34
Female	-0.27	
Cohabiting and having children	-0.33	

Minus scores represent prediction into low boundary control.



Finally, being female as well as to be cohabiting and having children were found to be significantly associated with low boundary control. However, this was only the case for segmenters.

Boundary management preferences, boundary control, and work-life balance

There was, as expected, a main effect of boundary control on work-life balance ($F = 16.35$, $df 4$, $p < 0.000$). Hence, employees with high boundary control also experienced good work-life balance. Thus, Hypothesis 3 was supported. Moreover, there was no difference in work-life balance between segmenters and integrators. When analyzed by gender, it was however found that male segmenters who perceived high boundary control experienced better work-life balance than all other groups ($\chi^2 = 93.34$, $df 28$, $p < 0.000$).

Discussion

The present study investigated boundary management preferences, perceived boundary control, and work-life balance among full-time employed professionals in knowledge-intensive, flexible work. In particular, we focused on factors in both work and personal life that can be assumed to be of importance for boundary control. To the best of our knowledge, this is the first study that investigates psychosocial work factors and individual characteristics in relation to boundary management preferences and boundary control.

The findings showed that there was a strong preference for segmentation, that is, separating work and personal life. Moreover, a majority perceived low boundary control. This was however due to that male segmenters had high boundary control to a greater extent than all other groups. In contrast, female segmenters who were cohabiting and had children perceived low boundary control. In addition, as expected, high boundary control was related to good work-life balance, which is line with previous studies (Kossek et al., 2006, 2012). Our findings further showed that male segmenters had better work-life balance than all other groups. Among integrators, there were no gender differences in either boundary control or work-life balance. These findings point to that men benefit from the segmentation strategy in terms of both boundary control and work-life balance. In contrast, women face difficulties with the segmentation boundary strategy in a working life where the forces for integration and flexibility can be assumed to be strong. Taken together, these results possibly point to that those individuals preferring segmentation represent a more gender traditional division of household labor, whereas integrators might be more gender equal. This, however, needs to be investigated in future studies.

Turning to what mattered for the perception of boundary control, it was found that, for segmenters, nearly all the psychosocial work factors were associated with perceived boundary control. This was especially true regarding the time- and space-related work factors. Segmenters worked outside regular work hours and outside the work place to a lesser extent than integrators and also had lower actual weekly work hours than integrators. Not surprisingly, working in this boundaryless way in time and space was

only related to low boundary control among the segmenters. Although these time- and space-related aspects in themselves can be regarded as potential sources for stress, they also contribute in eroding the boundaries between work and personal life so that work-related activities compete or collide with personal-life activities. For segmenters, as they have a desire for keeping work and personal life separated, these breaches in time and space are presumably evaluated as a significant boundary violation. For integrators, on the other hand, this blurring of boundaries in time and space do not seem to pose a problem for their perceived boundary control, as this way of working is a part of their preferred strategy. Taken together, these findings can be understood as that whether or not there is a fit between the preferred and enacted boundary management style is highly important for the perception of boundary control.

Moreover, psychosocial work factors that broadly reflected goal clarity and support were important for segmenters' boundary control. These factors can be assumed to aid in providing an understanding of the work assignment and thus give frames of reference with regard to work performance, as well as support work implementation. Hence, these psychosocial work factors can be regarded to serve as external boundaries in a work setting otherwise characterized by boundarylessness. Although we expected that this would be significant for the perception of boundary control among both segmenters and integrators, this was the case only for segmenters. As such, this type of external boundaries in work can be assumed to aid segmenters in keeping work and personal life separated, which is beneficial for them in perceiving high boundary control.

Finally, for both boundary management preference groups, the individual capacity for self-regulation in work was vital for high boundary control. This reflects capacities such as being able to judge when a work assignment is completed, to be able to work independently, organizing work in an efficient manner, and having the capacity to say no and set limits. These skills can be understood as general elements in an individual's capacity for boundary setting, and as such, subsequent boundary control. Thus, the capacity for self-regulation seems to be a central work competence for preserving employee boundary control in a work context characterized by increasing demands on flexible and permeable boundaries between work and personal life.

Limitations and suggestions for future research

An obvious limitation of the present study is its cross-sectional design. As such, causal relationships between the studied variables cannot be demonstrated. Thus, future longitudinal studies would allow us to investigate boundary management preferences, boundary control, and work-life balance at different points in time, and also how these may vary over time in relation to factors in both the work and personal-life domains.

Moreover, the use of self-reports may have resulted in an overestimation of the associations between variables due to common method variance. Self-reports are, however, important in understanding the studied relationships, as we can assume that the preferences individuals have for various boundary management styles play a more important role for both the perception of boundary control and work-life balance than do factors that could be captured using other, more objective measurement methods. Therefore, we do not believe that common method bias had any considerable effect on the



results. Future studies could, however, reduce common method bias by creating a time lag between measurement of the predictors and the outcome variable (Podsakoff et al., 2003).

In addition, we used single-item measures on both boundary management preferences and boundary control. Multi-item scales would have been preferable and increased the validity of the measures. We, however, used the single-item measures that had been used in previous studies (Kossek et al., 2006). It can, in spite of this weakness, be argued that the findings, in terms of when and where work was performed among segmenters and integrators, respectively, and how this in turn related to the perception of boundary control, validated the classification of respondents into the two boundary preference groups.

Finally, in questions on boundary management preferences, there is a dimension of adjustment to circumstances. Some people may have adjusted to a boundary strategy that might not be their preferred or desired one but the best possible with respect to their overall life situation. As such, there is a need for studies focusing on preferred as well as enacted boundary management styles, as it can be assumed that a potential incongruence between these presumably lead to the perception of low boundary control. This rather complex issue on the degree of voluntariness and adjustment in boundary management preferences and enactment is worthy of attention in future research.

Taken together, our findings show that boundary control is vital for work-life balance. In addition, segmenters need external boundaries in work for successful boundary control. Moreover, self-regulation seems a crucial boundary competence in knowledge-intensive, flexible work. However, the questions raised in this study need further investigation and the findings need to be replicated in larger and more heterogeneous samples. Directions for future research that could prove valuable would be to investigate the potential differences between men and women regarding their opportunities, in both the work and personal-life domain, to enact their preferred boundary management strategy as well as studying work demands for constant availability and work-related ICT use outside regular work hours, in relation to boundary crossing, that is, enacted integration, boundary management preferences, and perceived boundary control, and the effects on both work-life balance and other outcomes such as stress, recovery experiences, and health.

Conclusion and policy implications

Given the recent and ongoing rapid changes in modern working life, we can assume that the pressure on employees to engage in integration, that is, enacted boundary crossing, is steadily increasing, thus making work-life balance more difficult to achieve. In this context, employees' perceived boundary control seems vital for the experience of work-life balance, in particular for those desiring segmentation between work and personal life.

To conclude, employers and organizations could play a beneficial role in the lives of employees by increasing knowledge about individual boundary management preferences and related perceptions of boundary control. On the basis of this knowledge, organizations could actively contribute by adapting the work situation so as to make it easier for employees to engage in boundary management styles that are congruent with

demands in other areas of life and during different life stages. This could, in turn, reasonably be expected to benefit both organizations and employees in terms of increased boundary control and subsequent positive experiences of work-life balance.

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