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Striking a different balance Work-family conflict for female and male managers in a Scandinavian context

Knud Knudsen

Abstract

Purpose – The purpose of this paper is to explore how male and female managers may regulate their workload differently in response to conflicting job-home pressures. The main hypothesis is that female managers seek to reduce anticipated discord by investing less time in their work role. The paper investigates this postulated link between managers' gender and work-family conflict via their workload, based on a conceptual model and within a Scandinavian context. The central argument is evaluated against a competing explanation of structural constraints, implying that female managers in stead of choosing reduced workloads are required to work less.

Design/methodology/approach – The paper is based on a large survey of Norwegian managers. The applied sample size is 2,195, with 1,740 men and 455 women. In addition to indicators of time-based work-family conflict the questionnaire contains detailed information on managers' individual background and positional characteristics. To trace direct and indirect influences of gender over different analytical stages, a step-wise regression analysis is carried out.

Findings – Initial investigations document that female managers have a lighter workload, more frequently perceive glass ceiling constraints and less often experience work-family conflict. Step-wise regression analysis demonstrates that the effect of gender on job-home tensions is mediated mainly by managers' workload, and is less related to the glass ceiling. This pattern is consistent with central hypothesis, still the alternative explanation cannot be totally ruled out.

Research limitations/implications – This paper is limited to the Scandinavian setting at a single point in time.

Practical implications – It is important that employers recognize the need for more optimal time arrangements for women in higher-level positions. In addition, female managers could benefit from support networks across work organizations.

Originality/value – This paper is among the first to examine the mediational processes by which gender influences work-family interdependencies for managers, tracing indirect pathways as well as direct effects for alternative model specifications. A representative sample with a broad set of individual and positional characteristics in combination with a relevant regression approach provides credible and robust results.

Keywords Gender, Women executives, Managers, Family, Role conflict, Norway, Scandinavia

Introduction

Many women and men today combine parenthood and family life with full-time paid work. Although multiple roles may be beneficial to the general well-being of both genders (Higgins *et al.*, 1992; Pietromonaco *et al.*, 1986; Greenhaus and Powell, 2006), competing commitments can also lead to role conflict and negative psychological outcomes (Pleck *et al.*, 1980; Kopelman *et al.*, 1983). Such inter-role conflict exists when performance in one role creates an inability to perform adequately in another. When experienced primarily in the home, this discord is known as work-family conflict. This is the extent to which a person the experiences pressures within his or her work role that are incompatible with expectations of his or her family. These are usually felt as time-based tensions (Greenhaus and Beutell, 1985; Carlson *et al.*, 2000), as when work demands result in the inability to take children to a sports event or help one's spouse in the house (Grant-Vallone and Donaldson, 2001).

Managers are likely to experience more conflict than nonmanagers. Several factors associated with higher-level careers, including long and stressful days, are linked to contradictory role expectations (Voydanoff, 1988). Managers' job involvement and identification with their work tend to produce additional work-life tensions (Adams *et al.*, 1996). Although job expectations are high, managers' work tasks are still not absolute and externally given. To some degree, managers can control or negotiate their time-use and schedules (Singh, 2002), even if they have "full time" responsibilities. Obtaining, keeping, and adjusting to a managerial position constitute a process, and – within limits – managers can often set rules for their own time-use. Thus, the possibility that managers could regulate their workload may help them to handle anticipated work-family conflict, in order to establish a better overall work-life balance.

Previous studies have considered the possible effects of gender on work-family conflict. While some researchers report few differences between women and men (Pleck et al., 1980), others have found that women experience higher tensions (Duxbury et al., 1994; Gutek *et al.*, 1991). The primary explanation offered for this difference is that women still view the family as their main obligation and attach relatively more meaning to parenting (Simon, 1995). Hence, for women, work-related demands more often tend to collide with family-related expectations. Parallel to women's increased participation in the paid workforce over the past decades, there has been an increase in the number of women in management positions (Reskin and Ross, 1995), a trend also found in the Scandinavian countries (Håland and Daugstad, 2005). A managerial career often presumes full-time support at home, and the most successful managers are frequently those with extensive family backup (Wajcman, 1996; Davidson and Cooper, 1992; Blair-Loy, 2001). Nevertheless, female managers still bear primary responsibility for domestic duties and childcare (Frone et al., 1997), and less often have either full- or part-time support from a stay-at home spouse. As a consequence, female managers may try to structure their workload more effectively in order to avoid colliding pressures (O'Neill and O'Reilly III, 2004).

A large body of research on the antecedents of work-family conflict exists, including studies investigating gender differences and research on variations across managerial levels (Byron, 2005; Cinamon and Rich, 2002). In contrast, there are few studies of how female and male managers cope with these strains, or of the potentially mediating role of workload. This is surprising, considering the growing scientific interest in a deeper comprehension of the mediational processes by with gender influences work-family

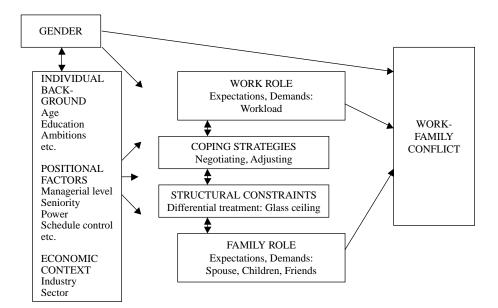
interdependencies, beyond simply looking at direct effects (Parasuraman and Greenhaus, 2002), as well as the political importance placed on cultivating women for managerial careers, notably in Scandinavia (Meyersson and Petersen, 2006). Although recent contributions have provided new insights into the connection between gender and such discord as well as enrichment (Greenhaus and Powell, 2006; Powell and Greenhaus, 2008), the processes linking gender and work-family conflict are still less well understood. Moreover, some, but not all, quantitatively oriented research in this area has been hampered by vague conceptual frameworks, narrowly selected populations, and small samples that limit effectively adopting of multivariate approaches (Singh, 2002; Drew and Murtagh, 2005; Lo *et al.*, 2003).

This paper contributes to the literature on gender in management in three ways. First, by synthesizing sociologically and psychologically oriented research, we create a conceptual framework to explain the basic mechanisms behind variations in managers' work-life conflict. This combined with a brief presentation of the Norwegian and Scandinavian setting, places managers' inter-role demands within a broader analytical context. Second, based on our model, the pathways by which gender effects could be mediated are specified. We argue that such differences result from women (more than men) seeking to reduce anticipated discord by investing less time in their work role. A competing interpretation, however, contends that female managers face a more restricted opportunity structure in the work place that excludes them from some demanding jobs and tasks. Unequal workloads (which in turn affect work-family conflict) could instead reflect certain glass ceiling practices. Third, with data from a broad, large-scale and representative Norwegian survey, we apply multivariate, step-wise regression analysis to assess gender influences, tracking direct and indirect effects for alternative model specifications. Going beyond standard regression techniques, this combined approach allows for more precise conclusions to be drawn regarding the mediating links between gender and job-home discord.

Theoretical considerations

Building on Byron's (2005) and Cinamon's (2002) meta-analyses of antecedents of work-family conflict, recent research on managerial role demands (Kasper *et al.*, 2005; Drew and Murtagh, 2005) and contributions on female and male managers' coping strategies (Lo *et al.*, 2003; Powell and Greenhaus, 2008) we propose a simple causal model (Figure 1). This provides a logical structure to analyze the influences of gender on managers' work-family conflict, and to investigate workload as a possible intervening link between the two phenomena.

In the model (Figure 1), work-family conflict is seen as stemming from competition between managers' roles at work and at home. Central to the work role is workload, in terms of hours invested in the job and additional efforts, for instance weekend work and business travel. Important aspects of the family role typically involve expectations from and interaction with children and the spouse. Managers of both sexes will normally seek to balance colliding inter-role demands by regulating the way in which family roles and work roles are played out in everyday life. Coping strategies include adjusting time plans, negotiations and restructuring tasks at home and on the job. Hence, regulating one's own workload becomes part of a strategy to keep competing demands under control, in order to achieve an acceptable over all life balance. The model (Figure 1) postulates that role demands, coping strategies, and structural



constraints are affected by individual background (such as education and personal strengths), and positional factors (such as managerial level and number of subordinates), that again are shaped by the economic and social context of the work organization. These characteristics are in turn linked to managers' gender, through institutionalized practices and structures in work life.

Consistent with the early findings of Greenhaus and Beutell (1985), we argue that managers' workload will affect their time-based work-family conflict. Following Rijswijk *et al.* (2004) and Entricht *et al.* (2006) we expect women more than men to control job-home tensions by regulating investments in time and efforts at work. In line with Singh (2002) we contend that this logic is particularly relevant for women in managerial positions. We expect female managers to seek a different overall balance between competing commitments through negotiations with the parties involved, and by adjusting their professional ambitions (Linehan and Walsh, 2000; Li and Wang, 2001; O'Neill and O'Reilly III, 2004; Jennings and McDougald, 2007; Lyonette and Crompton, 2008). Our main hypothesis therefore is:

H1. Gender differences in work-family conflict for managers result from women (more than men) seeking to reduce anticipated discord by investing less time in their work.

An alternative explanation rests on the idea of certain organizational constraints, typically known as the glass ceiling (Meyersson and Petersen, 2006, p. 6). The implication is that female managers are prevented from holding certain powerful and important positions. These are usually the most demanding jobs, having the heaviest workload. Hence, lower work-family conflict could stem from work constraints imposed on them by an often male-dominated organization. The alternative hypothesis thus is:

H2. Gender differences in work-family conflict result from female managers facing a more closed opportunity structure in the workplace that excludes them from certain demanding jobs and tasks.

While *H1* implies a lower work-family conflict as a result of female managers seeking a lighter workload, *H2* suggests that less discord stems from workload constraints imposed on them by the work organization. In this way, the rational view (Cinamon and Rich, 2002; Byron, 2005; Jennings and McDougald, 2007), which emphasizes coping strategies in a preventive manner as a way to minimize anticipated collisions between the work role and the family role, competes with a structural interpretation (Meyersson and Petersen, 2006; Gutek *et al.*, 1991).

Both hypotheses presume workload as a mediating factor between gender and work-family conflict. H1, predicts a simple connection from gender to conflict via workload (Figure 1, upper part). H2, however, postulates a more complex link, implying that the effect of gender primarily operates through the glass ceiling (Figure 1, middle part) which again affects workload. An empirical consequence of H2 should be a sizable correlation between glass ceiling and workload, i.e. perceived constraints in fact going together with a lower workload. Given H2, the direct effect of gender (top of Figure 1) should become markedly reduced with glass ceiling added as independent variable. This does not follow from H1, however. Our main hypothesis implies that the direct effect of gender will be reduced only when workload is introduced as explanatory factor, independent of glass ceiling constraints.

The two competing hypotheses can be evaluated by introducing glass ceiling practices into the empirical analysis, side by side with managers' workload. If these two indeed represent competing explanations, one would expect them to "steal" explanatory power from each other. To do so, they need not only to be linked to gender and conflict; the two factors should also correlate, as mentioned. If the latter does not hold, they can still be considered as supplementary rather than competing explanations.

The Scandinavian setting

In an international context, the Scandinavian approach to gender and family modernization appears successful (Ellingsæter and Leira, 2006). These countries have the highest score on United Nations' gender equality indexes – the gender development index and the gender empowerment measure – which measure the gender distribution of welfare and access to economic/power resources, respectively. Nordic fertility rates are among the highest in Europe, as are the employment rates of mothers – a combination often taken as an indicator of the impact of parenthood policies that assist both mothers and fathers in reconciling work and childcare.

Family policies in Norway have been nearly as advanced as Sweden's (Albertsen *et al.*, 2007; Halleröd, 2008). These policies include paid parental leave, with some portion reserved for fathers, in addition to tax and cash benefits for families with children. Moreover, low-cost, high-quality, publicly funded childcare is available. Part-time jobs and work with flexible hours are almost universally available, and no wage penalties are attached to being employed part-time. Such practices appear to be more accepted in Norway than in the other Nordic countries, as Norway has a markedly higher percentage of part-time employed women than Denmark, Finland, and Sweden (Albertsen *et al.*, 2007, p. 22).

In addition, Scandinavian countries are characterized by a compressed wage structure. In discussing gender differences in the Norwegian labor market, Petersen (2002) contends that the small wage gap in this country (as compared, for instance, to that in the USA) makes it difficult for female managers to afford help and services for the home and family. International comparisons, moreover, indicate that Norway and Sweden have relatively few women in managerial positions (Wright *et al.*, 1995). This conclusion is supported by Blau and Lawrence (1996). Petersen (2002) concludes that the short distance between top and bottom, which provides fewer incentives to reach the top, could explain the low percentage of women in top management positions in Norway. Thus, while in several respects a developed welfare state eases women's burden of combining work and family, a compressed wage structure could also make it difficult for them to plan for a managerial career (Waldfogel, 1998; Mandel and Semyonov, 2005).

Methods

The data comes from a representative survey of more than 3,000 full-time managers in Norway. The population consisted of managers employed in private or public companies in 2002, with at least ten employees. Each manager had at least one subordinate. This large-scale survey was funded by the Norwegian Administrative Research Foundation (AFF) and the Norwegian Research Council (NFR). The main purpose of this AFF survey was to provide an empirical basis for a comprehensive analysis of managerial roles in the Nordic context, during a period of international change and increasing globalization. The questionnaire covered strategic choices, supervisory tasks and challenges, inter- and intra-role conflicts, as well as managers' assessments of their own role performance. Full documentation is available from the survey's principal initiators (Colbjørnsen, 2004; Kåfjord, 2008; Colbjørnsen *et al.*, 2001). No previous contribution from the larger project has analyzed female and male managers' work-family conflict.

The years from 1994 to mid-2008 cover a period of stable political conditions, steady economic growth at the national level and foreseeable conditions in the business environment. The number of female managers has increased during these 15 years. Governmental initiatives have also aimed at recruiting more women to higher level positions, however, the reported proportion of female managers is still below one-forth[1]. Based on this background we believe that any year from the mid period (1999-2003) should be fairly representative for the wider time span and relevant for our research purpose.

We limit our sample to managers who are married or live with a partner, and who are between 30 and 60 years old. The net sample used for this paper consists of 2,195 respondents. Of these, 21 percent (455) are women and 79 percent (1,740) are men. The percentage of female managers in the applied sample is approximately the same as in the Norwegian Labour Force Survey, from Statistics Norway (Håland and Daugstad, 2005). Given the paper's basic arguments, we consider it relevant to investigate managers expected to be in a regular or typical family relationship. Such a decision eliminates approximately 12 percent of the total sample, while the 30-60 age restriction removes another 5 percent. Ten percent was initially lost because of missing data on key variables.

The dependent variable, time-based WORK-FAMILY CONFLICT, is constructed from three questions about how demands from work may interfere with expectations

from the home. These were translated and selected from Gutek *et al.*'s (1991) larger index. The wording in the AFF questionnaire was: "How often do you experience the following conflict situations?": "My job involves demands that interfere with my marriage/partnership"; "My job involves demands that interfere with my leisure time activities"; "My job involves demands that interfere with my ability to take care of friends and family". Answer categories range from "often" to "never" on a four-point scale. These items also overlap with additional suggestions for time-based measures in the literature (Carlson *et al.*, 2000; Fields, 2002, p. 260; Boyar *et al.*, 2007). In a factor analysis of a larger set of observed indicators the three constituted a specific dimension, confirmed also by a Cronbach's α value of 0.80. The resulting index forms a symmetric, roughly bell-shaped curve. It has been scaled from 0 to 10, with higher values indicating a higher level of work-family conflict.

Of the central explanatory variables, GENDER has the value of 0 for men and 1 for women. The questionnaire contains indicators of three aspects of workload (Byron, 2004): respondents' reported weekly work hours (WEEKLY WORK HOURS), how often he or she works in weekends (WEEKENDS; from never = 0 to very often = 3), and how many days he or she spent on business travel in the previous year (TRAVELS; from none = 0 to more than 200 = 7). Workload is here seen as a formative rather than a latent construct (Bollen, 2002) and the three variables will be entered separately in multivariate analyses. This approach also finds empirical support in the fact that the average correlation among these three variables is low, around 0.3. There is no direct or objective measure of gender-related constraints or residual discrimination in the questionnaire. However, a single-item measure, in previous research labeled GLASS CEILING and validated as an indicator of such restrictions (Colbjørnsen, 2004, p. 163; Colbjørnsen et al., 2001, p. 130), is used: "How well does this statement fit with your view and experience in your work situation? A female manager must be more competent than a male manager to rise equally up in the organization" (answer categories ranged from not at all = 0 to very well = 3). Although the variable must be regarded as a proxy, we believe that this measure could capture relevant structural constraints, as will be further commented on in the empirical analysis.

Other independent variables describe the manager's individual background, positional factors, family role demands, and the larger economic/industrial context of the workplace (Figure 1). These variables are likely to correlate with gender and affect work-family conflict (Schaubroeck and Merritt, 1997; Duxbury et al., 2005; Li and Wang, 2001; Grönlund, 2007a, b; Skinner and Pocock, 2008). Given the focus of this paper, we regard them as relevant control variables. Individual background variables are AGE (in years) and EDUCATION (primary = 0, university = 4). Indicators of family role demands are CHILDREN (children vounger than 1 = 1, otherwise = 0)[2], and a set of dummy-variables (0-1) characterizing the spouse's work status. These dummy-variables for the spouse's work include full-time manager (SPOUSE FULL TIME MANAGER), full-time in nonmanagerial position (SPOUSE FULL TIME NON MANAGER), part-time (SPOUSE WORK PART TIME), working at home (SPOUSE WORK AT HOME), laid off (SPOUSE LAID OFF), studying (SPOUSE STUDYING), retired (SPOUSE PENSIONED), and other (SPOUSE OTHER). For simplicity's sake, we combine the last four dummy-variables into one common reference category in the multivariate analysis, still without loosing any crucial information for the spouse's work as a control

variable. Positional factors are length of managerial experience, in years (SENIORITY), managerial level (LEVEL: lowest = 0, top level = 3), and number of subordinates reporting directly to the manager (SUBORDINATES, from 1-5 = 0 to more than 40 = 5). Control over own work schedule (WORK SCHEDULE CONTROL) is measured by answers to the following statement: "I can steer/control my daily work schedule," with response categories ranging from "does not fit" (0) to "fits very well" (3). Moreover, there is one indicator of the broader economic context of the work organization, namely whether the manager works in the public or private sector (PUBLIC: 1 = public sector, 0 = private sector). In the regression analysis all independent variables have been scored with zero as the lowest value. This rescaling simplifies the interpretation of the constant term.

Our analytical strategy to empirically test the central theoretical arguments consists of a step-wise, hierarchical regression analysis. The focus is on the effect of gender, starting at the first step by a simple bivariate regression, with GENDER as the only independent variable and WORK-FAMILY CONFLICT as the dependent variable. This simple regression gives an estimate of the total gender effect, irrespective of how it might be transmitted through various mechanisms. Thus, at this first stage the whole influence of gender is summarized by the direct effect only (Figure 1, top), as no other explanatory variables have vet been included. Then, three additional rounds follow. In the second step, measures of individual background, positional factors, and economic sector are added as independent variables (Figure 1, left part). Any marked change in the direct (partial) effect of gender will at this stage indicate the degree to which the original gender-influence is mediated through these variables. In the third step, GLASS CEILING is entered as an independent variable. Following our theoretical arguments (Figure 1), we now wish to track whether such mechanisms influence work-family conflict, and to what degree taking these constraints into account will change the direct effect of gender. A marked drop at this stage should indicate support for the alternative H2. In the fourth and final step, we add indicators of workload as explanatory variables (i.e. WEEKLY WORK HOURS, WEEKENDS, and TRAVEL). Our interest in this crucial stage is focused on the following questions:

- *Q1.* Does a clear cut effect of workload on work-family conflict exist, and to what degree is the effect of gender now mediated by this factor?
- Q2. Does an effect of workload on work-family conflict compete with a possible glass ceiling influence from the previous step, implying that the two may reduce each other's explanatory power, or are these noncompeting causal factors?

An answer to Q1 indicates whether there is initial support for H1, while the answer to Q2 indicates if this hypothesis remains credible, even after having been held up against the competing explanation H2 implies.

Findings and interpretations

Table I shows basic descriptive statistics for male and female managers. All the gender differences commented below, except for educational level, are statistically significant. Results show that male managers generally experience more work-family conflict; as they on average score about 0.45 higher on this scale. At the same time, female managers more often report glass ceiling constraints. We consider this pattern as

			Gene			
	Ma		Fem		Tot	al
	Mean	SD	Mean	SD	Mean	SD
WORK-FAMILY CONFLICT	4.66	2.51	4.21	2.68	4.56	2.55
GLASS CEILING	1.17	0.89	1.73	0.97	1.29	0.93
WEEKLY WORK HOURS	47.75	6.98	43.98	5.82	46.97	6.92
TRAVELS	2.26	1.06	1.70	0.99	2.14	1.07
WEEKENDS	1.36	0.73	1.19	0.79	1.32	0.75
WORK SCHEDULE CONTROL	0.96	0.90	0.84	0.93	0.93	0.90
AGE	44.32	8.08	42.51	8.16	43.95	8.13
EDUCATION	2.71	1.04	2.77	1.08	2.72	1.05
CHILDREN	0.72	0.45	0.61	0.49	0.70	0.46
SPOUSE FULL TIME MANAGER	0.22	0.42	0.51	0.50	0.28	0.45
SPOUSE FULL TIME NON MANAGER	0.31	0.46	0.43	0.50	0.33	0.47
SPOUSE WORK PART TIME	0.28	0.45	0.02	0.14	0.23	0.42
SPOUSE WORK AT HOME	0.08	0.28	0.00	0.04	0.07	0.25
SPOUSE LAID OFF	0.04	0.19	0.00	0.00	0.03	0.17
SPOUSE OTHER	0.02	0.15	0.02	0.15	0.02	0.15
SPOUSE STUDYING	0.02	0.13	0.00	0.06	0.02	0.12
SPOUSE PENSIONED	0.01	0.10	0.01	0.09	0.01	0.10
SENIORITY	8.17	7.13	6.80	7.08	7.88	7.14
LEVEL	1.73	0.77	1.49	0.68	1.68	0.76
SUBORDINATES	1.26	1.40	1.54	1.62	1.32	1.46
PUBLIC	0.12	0.33	0.38	0.49	0.18	0.38

Table I. Descriptive statistics: male and female Norwegian managers (n = 2,195)

giving at least some external validation of the proxy glass ceiling measure. One also notes that while both genders work long weeks by Norwegian standards (Håland and Daugstad, 2005), male managers clearly work longer hours than their female counterparts. In a typical week, men work nearly four hours more than women. A similar pattern is found for the two supplementary indicators of work role demands: male managers are more often away on work-related travels, and they more frequently work on the weekend. They are also somewhat older, while there is little (nonsignificant) difference in educational background. Turning to family role demands, male managers more often have children in the home. Furthermore, dummy-variables for the spouse's work situation portray a telling picture: While only 22 percent of male managers have a spouse in a full time managerial position, around half of women managers (51 percent) do. A parallel pattern is found for managers with spouses in nonmanagerial full time positions, although the gap now appears less dramatic (31 versus 43 percent). Furthermore, marked differences are found when it comes to having a spouse working part-time or working at home. While this arrangement is nearly nonexistent for female managers, it is still the case for 28 and 8 percent of male managers, respectively. The percentages of spouses in other work statuses are low, and although interesting, are beyond the scope of our paper. There are also notable differences when it comes to positional factors. Male managers have been longer in managerial positions (SENIORITY), reached higher positional levels (LEVEL), and report a higher ability to control their work schedule. Female managers have more subordinates directly reporting to them, and they more often work in the public sector. This gender-pattern illustrates aspects of Norwegian economic and social developments in recent decades (see also Håland and Daugstad, 2005), as the entry of female managers into work organizations is a fairly new phenomenon. The differences also underline the relevance of taking such factors into account in multivariate analysis.

To assess the hypothesized relationships among gender, workload and work-family conflict, multivariate analyses have been carried out, taking the causal structure of Figure 1 as a starting point. Table II shows the results from hierarchical, step-wise regressions, with time based work-family conflict as the dependent variable. We will focus on the regular (unstandardized) regression coefficient, with an eve on the standardized one for comparative purposes. Prob-values are reported, indicating whether or not the null-hypothesis should be rejected. In the first step, GENDER is the only independent variable. In the second, individual, positional, and contextual indicators are added. This stage will give an idea about how much of the gender difference is a reflection of managers' general family and work situation. In the third step, perceived GLASS CEILING is added as explanatory variable, providing a basis for evaluating the impact of possible gender-related structural constraints on work-family conflict. In the fourth and final step, the full model, including the relevant workload indicators (WEEKLY WORK HOURS, TRAVELS, and WEEKENDS) is analyzed. In this stage, we will have a basis for judging the postulated mediating function of workload, and at the same time investigating overlapping or competing influences of glass ceiling mechanisms.

In the first step (Model 1) shown in Table II, the significant regression coefficient for gender merely reflects the difference between male and female managers as already shown in Table I. On average, men experience a higher level of work-family conflict than women. In the next step (Model 2), variables for individual background, positional factors, economic sector and family demands have been added. Except for seniority, all these show significant effects: the older have lower conflict levels than the younger, the well-educated score higher than the less-educated, top managerial positions are linked to more home-job collisions than lower ones, while having many subordinates leads to more work-family conflict. Control over own work schedule reduces tensions markedly. This is also the most important predictor so far, as reflected in the standardized regression coefficient. Furthermore, working in the public sector results in lower conflict levels. Family role demands affect job-home strains, demonstrated by the significant effect of having children in the home. Although separate dummy-variable indicators of spouses' work status do not show any clear cut significant effects, these variables taken together do so, now with dummy-categories for laid off, pensioned, student, and other as a combined reference category.

A reasonable expectation in this second step, having demonstrated significant effects of such background variables, is that including these might alter the influence of gender from the first round. Practically all (-0.44) of the original effect of gender is retained, however, and this regression coefficient still comes out statistically significant by any conventional standard. Thus, even when a number of background characteristics (e.g. age, education, seniority, managerial level, number of subordinates, work schedule control, economic sector), as well as some family demands are held constant, male managers more often report such role-conflict than female managers. From this result, one can conclude that the gender difference observed at the outset cannot be explained away by managers' background.

		,			(Model	del					
	Unst. coeff. B	St. β	Pob-value	Unst. coeff. <i>B</i>	St. St. β	Pob-value	Unst. coeff. B	St. St. β	Pob-value	Unst. coeff. B	$_{\beta}^{4}$ St. coeff. β	Pob-value
Constant)	4.66		0.00	4.33		0.00	4.05		0.00	1.70		0.00
TEMALE	-0.45	-0.07	0.00	-0.44	-0.07	0.00	-0.57	-0.09	0.00	0.01	0.00	0.95
				-0.03	-0.10	0.00	-0.03	-0.11	0.00	-0.03	-0.09	0.00
IDUCATION				0.29	0.12	0.00	0.30	0.13	0.00	0.11	0.05	0.02
SENIORITY				0.01	0.03	0.15	0.01	0.04	0.09	0.02	0.04	0.03
L				0.45	0.13	0.00	0.45	0.13	0.00	0.07	0.02	0.29
SUBORDINATES				0.09	0.05	0.01	0.09	0.05	0.01	0.02	0.01	0.47
NUKA SCHEDULE SONTROL				-0.95	-0.33	0.00	-0.93	-0.33	0.00	-0.70	-0.25	0.00
PUBLIC				-0.54	-0.08	0.00	-0.51	-0.08	0.00	0.22	-0.03	0.11
HILDREN				0.29	0.05	0.01	0.29	0.05	0.01	0.44	0.08	0.00
SE FULL TIME												
MANAGER				0.05	0.01	0.79	0.04	0.01	0.83	-0.11	-0.02	0.53
SPOUSE FULL TIME NON												
AGEF				-0.09	-0.02	0.64	-0.09	-0.02	0.63	-0.19	-0.04	0.25
SE WORK PART TIME				-0.28	-0.05	0.16	-0.28	-0.05	0.15	-0.46	-0.08	0.01
AT]				0.10	0.01	0.70	0.10	0.01	0.69	-0.03	0.00	0.88
SLASS CEILING							0.22	0.08	0.00	0.21	0.08	0.00
VEEKLY WORK HOURS										0.10	0.27	0.00
TRAVELS										0.31	0.13	0.00
VEEKENDS										0.59	0.17	0.00

Table II.

The effect of gender on managers' work-family conflict: regression analysis in four steps (n = 2,195)

GLASS CEILING is introduced as explanatory variable in the third step (Model 3). Two important results are revealed. First, the perceived glass ceiling has a statistically significant effect on work-family conflict. Thus, the experience of such constraints at the work-place seemingly increases job-home tensions. In and of itself this finding, consistent with parts of the psychologically oriented literature (Montgomery *et al.*, 2006; Boles *et al.*, 1997), can be seen as a further validation of the applied glass ceiling measure, still keeping in mind that it is a proxy. Second, the effect of gender is in no way reduced by adding glass ceiling to the regression model. Rather, this direct effect at this stage tends to increase somewhat (up to -0.57), reflecting certain suppressor mechanisms at the previous stage[3]. Thus, even with glass ceiling controlled for, female managers less often report work-family conflict than male managers.

In the fourth and final step, workload indicators (WEEKLY WORK HOURS, TRAVELS, and WEEKENDS) are introduced as additional independent variables. A striking pattern appears. All three workload indicators demonstrate significant influence, still with weekly hours as the most important one, as roughly indicated by the size of the standardized coefficients. Hence, a heavier workload obviously increases work-family conflict. Moreover, we see a dramatic change in the effect of gender. The previous clear-cut direct influence has been reduced to practically nil, and now appears without any statistical importance. It follows that the gender-effect on work-family conflict can be regarded for the most part as mediated by managers' workload. The results in this last stage also tell that for an otherwise equal workload, female and male managers have about the same level of work-family conflict.

The observed pattern is consistent with our argument that female managers will try to minimize potential job-home strains by reducing their work efforts (Cinamon and Rich, 2002; Byron, 2005; Jennings and McDougald, 2007; Lyonette and Crompton, 2008). The development for glass ceiling influence from Steps 3 to 4 at the same time weakens the main alternative interpretation. Essentially, this effect remains unchanged (from 0.22 to 0.21), suggesting that perceived gender restrictions and workload do not represent competing explanatory factors. It can be shown too, that reversing the order of Steps 3 and 4 will not change this conclusion, a finding also corroborated by a very low correlation (-0.05) between the glass ceiling measure and work hours.

The results shown in Tables I and II clearly confirm the expectation that female managers more often experience constraints related to the glass ceiling, and indicate that this also affects work-family conflict. We find little evidence, however, that managers who perceive such restrictions work markedly less than those who do not, or that the link between gender and job-home strains via workload could result from females being excluded from positions requiring higher commitments. Thus, the resulting pattern is inconsistent with the glass ceiling argument (Meyersson and Petersen, 2006) suggested by the alternative H2. Given no direct information regarding managers' intentions or of actual gender discrimination in the workplace, our data do not, however, allow for a strong test of these alternative hypotheses. Still, we see the resulting pattern as providing increased credibility to our main H1.

A number of supplementary analyses carried out confirm that the main results are robust. Moreover, one may argue that the mechanisms postulated by our causal model (Figure 1) could work differently for male and female managers, suggesting interaction effects between gender and central explanatory variables. Extended investigations

indicate, however, only weak interactions, and none of a magnitude that appears to alter any of the main conclusions.

Summary and discussion

This paper has investigated a postulated connection between managers' gender and their work-family conflict in the Norwegian and Scandinavian context. A conceptual model provides a theoretical framework for discussing possible causal links. We assume that female managers identify more strongly with their family role than do male managers. Women therefore perceive interference from the work domain as more serious or psychologically costly, and will seek to avoid anticipated pressures. Managers' workload is considered an intervening factor between gender and work-family conflict, and we argue that female managers will attempt to dampen potential inter-role pressures by lightening or restructuring their workload. A lighter workload for women may have alternative explanations, however. A competing hypothesis suggests that women in managerial positions are subjected to glass ceiling constraints and are excluded from especially demanding posts and tasks. Thus, a lighter workload is not necessarily chosen by female managers; instead, they could be required to work less, without the same opportunity to put in as much effort as male managers.

Descriptive statistics and four-step multivariate regression paint a varied picture of managers in the Scandinavian setting. The survey data reveals how female managers still differ from male managers in terms of their personal background, positional characteristics, and the economic sector in which they work, as well as family demands. Typically, female managers report a lighter workload, more often perceive a glass ceiling, and experience less work-family conflict. More important, in the regression analysis, the gender difference for work-family conflict remains clear and significant as additional explanatory factors are introduced, even with the glass ceiling included as independent variable. When workload variables are added in the fourth step, however, the gender effect becomes negligible, and at the same time there is a strong direct influence from workload on work-family conflict. In short, while the glass ceiling seems less related to the gender-effect, workload obviously is. We interpret our findings in support of the rational view, seeing male and female managers' time investments as part of a coping strategy to minimize anticipated collisions between the work role and the family role (Cinamon and Rich, 2002; Byron, 2005; Jennings and McDougald, 2007). This observed pattern is, however, inconsistent with the alternative explanation postulating that female managers are restricted by the glass ceiling (Meversson and Petersen, 2006).

The empirical foundation for our conclusion should not be exaggerated, as the analysis is hampered by data and statistical limitations. The AFF survey has no objective or direct information about gender-discrimination practices in the work organization, or of managers' reasoning behind their workload levels. In addition, a broader coverage of family demands would have been preferred. Still, the documented strong and independent influence of workload on job-home strains, and the obvious mediating role of this factor between gender and work-family conflict begs explanation. Despite the limitations mentioned, we find the argument of rational coping strategies more convincing than the alternative interpretation of structural constraints.

At least two managerial implications emerge from our results. First, it appears important that employers recognize the need for more optimal time arrangements for women in higher-level positions. This is a prerequisite for effectively organizing daily tasks, making it possible for these managers to meet the demands of both work and family. Thus, assuming that the executive levels within the work organization seriously subscribe to more inclusive gender representation in managerial positions and wish women to succeed, they should help in implementing routines and norms that support alternative time arrangements. In other words, the traditional culture of long hours at many workplaces will have to change (Higgins and Duxbury, 2005). Second, female managers could benefit from support networks of other women in higher-level positions. Much can be learned from sharing frustrations and alternative responses to the work-family conflict women experience at different levels and under varying conditions. Being part of such a network can help female managers make wiser choices, based on others' knowledge, and strengthen support for nontraditional solutions. Again, if recruiting women into higher positions and ensuring that female managers stay in their jobs is an important goal, it seems important to build support across work organizations (Higgins and Duxbury, 2005).

Our findings are also relevant for the larger question of gender equality in economic life. They emphasize critical obstacles women face at least in a Scandinavian context, to take on and stay successful in managerial positions. If female managers work fewer hours and are unable to assume extended job-related obligations, for whatever reason, they will need more time to become promoted, and are likely gradually to be left behind by their male competitors. Some of the reduced workload may be compensated for by more effective time-use at the job. This strategy will hold only to some degree, however, as a crucial aspect of being a manager is to be visible and accessible. A more pessimistic view, therefore, projects that female managers will continue to lose ground, at least in competing for top positions, unless they are willing to downplay their family role (Albertsen *et al.*, 2007).

This paper may still point to some alternatives. Acknowledging that an increasing proportion of female managers (despite its slow pace) are inevitable in advanced societies, we expect this process gradually to change conceptions of the managerial role, including institutionalized workload norms. Our expectation is that a larger influx of women into higher levels in the long run will lead to reduced time investments in the work role for managers in general, with more orderly time arrangements, and greater flexibility in schedules.

For future research we suggest three theoretical and methodological improvements. The first is further theorizing about mediating mechanisms. In this paper, we have focused on the relevance of certain aspects of the work role, still assessing potential structural constraints in the workplace. One should evaluate alterative and broader conceptualizations that capture male and female managers' interaction with family members and how their home activities are organized. Second, given the main finding about the importance of workload as a mediating factor, supplementary qualitative investigations seem important. We need to better understand which aspects of the workload that constitute relevant categories in the manager's ability to cope with conflicting role demands. Such qualitative approaches could moreover help develop questionnaires, which might capture managers' own reasoning about workload decisions, and describe glass ceiling related constraints in a more nuanced manner. Future analyses could then be based on improved measures of central concepts. Finally, our main findings regarding female managers' lower workload and reduced

work-family conflict, as well as their higher perception of structural constraints should be tested for alternative data and methodological strategies. New studies should include more direct information about individual experiences of residual discrimination or glass ceiling practices. Moreover, although the applied AFF survey is larger, more representative and comprehensive than most previous studies, it is still limited to the Scandinavian context. Extended research covering other countries and regions will indicate if any of our main findings can be attributed to national idiosyncrasies, such as the apparently stronger Norwegian part-time norm for women. Cross-national research of managers beyond Scandinavian nations, should also allow researchers to assess the relevance of these countries' compressed wage structures to understand the linkage between gender and managers' work-family conflict.

Notes

- 1. For more detailed information, see www.ssb.no/english/ and www.ssb.no/vis/english/maga zine/art-2005-02-08-01-en.html
- 2. The AFF data included more detailed information about the age group (under 7 years, 7-15 years, 16 years, or older) of children still living at home. Perhaps in contrast to what one would expect, however still consistent with some findings in the literature (Byron, 2004), such detailed information did not change any of the main results. We have consequently reported results using this simple (0-1) dummy-variable.
- 3. There is a positive effect of gender on perceived discrimination (more females experience this) combined with a positive effect of glass ceiling on work-family conflict. Together this amounts to a positive indirect influence of gender on work-family conflict via glass ceiling, meaning that female managers tend to have higher conflict levels because of more frequent glass ceiling experiences. At this stage there is still a negative direct effect of gender, implying that the total gender effect summarizes two partial effects in opposite direction. When the indirect component in positive direction is taken into account (Step 3), the resulting direct and negative effect of gender becomes larger.

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