

Ambitious Academics Advancing in their Careers:

Does a feminine organizational culture and FSSB predict ambition and intention to leave of academics one year later?

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Abstract

Women in top positions of academia are underrepresented, which contributes to gender inequality and a loss of new perspectives and talent in the workforce. This second wave of a two-wave longitudinal study (one year in between measurements) aims to identify processes that stimulate the career advancement of (female) academics over time. It is hypothesized that a *feminine organizational culture* and *Family Supportive Supervisor Behaviour (FSSB)* play an essential role in the ambitions and intentions to leave of academics, by stimulating academics' work engagement and work life balance. In order to examine this, an online follow-up questionnaire was sent to assistant professors at a large Dutch university. A matching procedure based on unique codes matched data of two waves to one particular participant ($N = 205$), enabling longitudinal statistical analyses. Results indicate a causal pathway wherein FSSB causes general ambition one year later through increased work engagement. Furthermore, results indicate a causal pathway wherein a feminine organizational culture or FSSB cause the ambition to become a full professor, through increased work life balance. Unexpectedly, while examining whether the effects of these processes are stronger for women, the current data do not reveal any significant gender differences. Implications of these findings and recommendations for future research are further discussed.

Keywords: academia; FSSB; feminine organizational culture; work engagement; work life balance; ambition; intention to leave academia

Introduction

Women in academia are still underrepresented to this day. This underrepresentation contributes to gender inequality and a loss of new perspectives and talent in the workforce (Gardiner, Tiggeman, Kearns & Marschall, 2007a; Schneider, Carden, Francisco & Jones, 2011). Compared to other European countries, the Netherlands has a particularly low percentage of female professors (European Commission, 2012). Here, the number of female scientists seems to decline at each stage of the academic ladder (Van den Brink, 2010). Thus, one could say that Dutch women in the field of science are not faring well (Bosch, 2002). The long working hours that are typical in academia might play a role in this, as these long working hours might leave less room for private life (Knights & Richards, 2003; Fletcher, Boden, Kent & Tinson, 2007). This presumably does not accommodate individuals with family demands (Mason & Ekman, 2008). Women generally fulfil more family responsibilities (Parcheta, Kaifi & Khanfar, 2013), and therefore the long working hours might specifically be an ill fit with female academics. Research confirmed this, as family responsibilities seem to be associated with intentions to leave academia, with a stronger effect for women (Dryfhout & Estes, 2010). Furthermore, the long working hours of academia might also prevent women to move up and become professors. Research indicated that female academics with family aspirations might modify their ambition to evade these long working hours, enabling more time for private life. For instance, young women who anticipate motherhood or raise young children seem to lower their academic ambition in order to have more time for their family (Baker, 2008).

Increasing the number of female academics to improve gender diversity among university staff seems of great importance. Research indicated that academic gender diversity can advance innovation and creativity, as well as increase productivity (Van der Lee & Ellemers, 2015). Specifically, diversity in academic top positions seems to increase the growth of scientific knowledge by enlarging the pool of talents in the academic workforce (Harding, 1989). Hence, it is not surprising that universities in the Netherlands are trying to take initiatives to promote gender diversity among their employees by striving to increase the number of female professors. For instance, the University of Amsterdam, as well as Utrecht University and Radboud University strive to attain 25% of female professors in 2020 (VSNU, 2016). However, gender diversity among university staff members has not yet been attained (Van den Brink, 2010), as statistics have shown that in 2018 only 20,9% of women were professors in the Netherlands, while the percentage of female graduates is above 50% (LNVH, 2018).

The aim of the present study is to identify processes that stimulate the career advancement of (female) academics to become professors. This study is the second wave of a two-wave longitudinal study examining male and female academics' career advancement to uncover factors that stimulate their career advancement over time. Previous studies on the career advancement of academics have been cross-sectional or qualitative in nature (Sanders, Willemsen & Millar, 2009; Raddon, 2002). This study contributes to the existing literature by examining the career advancement of academics with a longitudinal design, enabling strong evidence on the causal order of variables (Taris & Kompier, 2003). Specifically, the aim of the present study is to examine whether a *feminine academic organizational culture* and *Family Supportive Supervisor Behaviour (FSSB)* predict higher ambition, and lower intention to leave academia, mediated by work engagement and work life balance. Two types of ambition are examined, namely (general) ambition and the ambition to become a full professor. Ambition refers to a motivation to do what is necessary to advance in one's profession, either within or beyond the current employer (Desrochers & Dahir, 2000), whereas ambition to become a full professor is the specific ambition to attain a full professorship. Furthermore, this study contains two mediators; work engagement and work life balance. Firstly, work engagement refers to a positive, fulfilling work-related state of mind, that is characterized by vigor (i.e., high levels of energy and mental resilience while working), dedication (i.e., strong identification with work and the experiencing of a sense of significance), and absorption (i.e., being happily engrossed in the work; Schaufeli, Salanova, González-Romá & Bakker, 2002; Schaufeli, Bakker & Salanova, 2006). Work life balance refers to the extent to which individuals are equally engaged in – and equally satisfied with – their work role and family role (Greenhaus, Collins & Shaw, 2003). In the present study, it is expected that a supportive work environment with a more feminine organizational culture and FSSBs, stimulates work engagement and work life balance, thereby increasing ambitions and decreasing intentions to leave academia. A discussion of all study constructs and how these constructs are interrelated follows below.

Does a feminine organizational culture relate to work engagement, work life balance, ambition, and intention to leave academia?

Academia generally has a competitive culture (Sanders et al., 2009), with a strong performance orientation (Thomas & Davies, 2002), long working hours and practically unlimited availability (Fletcher et al., 2007). These are all characteristics that are typical for a masculine organizational culture (Katila & Meriläinen, 1999; Knights et al., 2003). Female

academics might feel less at home in a masculine organizational culture (Jandeska & Kraimer, 2005), presumably because these masculine characteristics do not adhere to stereotypically feminine values. In this way, masculine organizational cultures might be contributing to the glass ceiling, and might impede the career advancement of women (Van Vianen & Fischer, 2002). In contrast, feminine organizational cultures might stimulate the career advancement of women, because these cultures adhere to stereotypically feminine values. Feminine organizational cultures are characterized by organizational support, promotion of the relational self, maintaining balance in life activities, participation, and collaboration within the organization (Maier, 1999; Van Vianen & Fischer, 2002). It is assumed that feminine organizational cultures with feminine values do not form a barrier to the career advancement of women (Van Vianen & Fischer, 2002).

The academic organizational culture seems masculine in nature. Overall, organizations seem to place more value on masculine characteristics than on feminine characteristics (Banihani, Lewis & Syed, 2013). However, feminine organizational cultures might stimulate work engagement because these cultures can be regarded as a resource. In turn, resources are positively related to work engagement (Bakker, Hakanen, Demerouti & Xanthopoulou, 2007). Several resources (i.e., family friendly organizational policies, organizational support, and collaborative organizational climate) that correspond with feminine organizational cultures seem to be positively related to work engagement. The existence of family friendly organizational policies show employees that they work for a caring organization that is willing to help them maintain balance in their life activities, which stimulates employee work engagement (Brough, O'Driscoll & Kalliath, 2005; Siu et al., 2010). Organizational support, which includes supportive supervisors and participation, predicts work engagement (Rothmann & Jordaan, 2006), and collaborative organizational climates improve employee work engagement (Bakker et al., 2007). Therefore, it is hypothesized that a feminine organizational culture predicts work engagement. Furthermore, the relationship between feminine organizational cultures and work engagement might be stronger for women. As previously mentioned, female academics might feel less at home in a masculine organizational culture (Jandeska & Kraimer, 2005). Therefore, female academics working in a masculine organizational culture might have to overcome organizational barriers to be able to demonstrate work engagement (Banihani et al., 2013). Thus, it is hypothesized that the effect of a feminine organizational culture on work engagement is stronger for women.

Work engagement is associated with several positive work-related outcomes, such as job motivation, job performance, ambition (Judge & Piccolo, 2004), career advancement

(Coetzee & Villiers, 2010), and lower turnover intention (Saks, 2006). The present study consists of two waves in which the outcome variables (i.e., ambition, ambition to become a full professor, and intention to leave academia) at time 2 are predicted by the predictor and mediator variables at time 1. The organizational culture score consists of the masculine organizational culture score subtracted from the feminine organizational culture score, so that a higher score equals a more feminine organizational culture. In all hypotheses that follow there will be corrected for the dependent variables at time 1. The first hypotheses are formulated as follows (see Figure 1):

Hypothesis 1a: Organizational culture (F-M)_{time1} predicts higher ambition_{time2} and ambition to become full professor_{time2}, and lower intention to leave academia_{time2}, through increased work engagement_{time1}.

Hypothesis 1b: The effect will be stronger for women than for men.

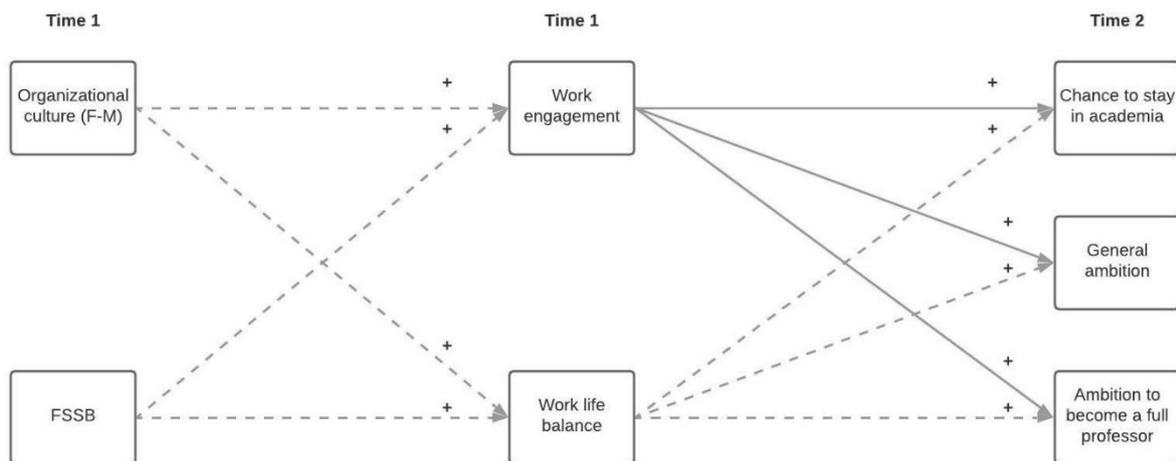


Figure 1. Model of hypotheses. Note: For all dotted lines a gender moderation is expected with a stronger effect for women.

The masculine organizational culture that prevails in academia may impede the balance between work and family. As mentioned before, academia is characterized by long working hours (Fletcher et al., 2007) which might leave less room for private life outside academia (Knights et al., 2003; Fletcher et al., 2007). This might hinder the attainment of a work life balance. Because attaining a work life balance in a masculine organizational culture is somewhat challenging, it is hypothesized that the extent to which an organizational culture is feminine relates to higher work life balance. Furthermore, because of the long working hours it seems that the masculine academic organizational culture might be incompatible with

care responsibilities (Armenti, 2004; Raddon, 2002). Women continue to be the primary caretakers in households (Adema & Whiteford, 2007), and therefore it might be more challenging for women to attain a work life balance in a masculine organizational culture. Thus, it is hypothesized that the relationship between a feminine organizational culture and work life balance will be stronger for women.

Work life balance is associated with several positive work-related outcomes. For instance, when enabling employees to balance their work with their caregiving responsibilities it might be prevented that employees lower their ambition, which can benefit their career success (Dijkers, van Engen & Vinkenbunrg, 2010). Moreover, academics working in an environment that supports them to balance between work and family have lower intention to leave academia (Noor, 2011). Women might benefit more from a work life balance than men. A balanced life between work and family is still more challenging for women than for men (Slaughter, 2015). Thus, it seems that women are more likely to experience an imbalance between work and private life, which in turn is associated with higher turnover intentions (Haar, 2004). Furthermore, the pressure of balancing career and family seems to be the most significant barrier in women's career advancement (Miller, 2004). This implies that women might have high ambition, but also feel highly responsible for family obligations (Valk & Srinivasan, 2011), thereby possibly impeding the work life balance of women. It is hypothesized that work life balance has a stronger effect on the ambition and the intention to leave academia of women. The following hypotheses are formulated (see Figure 1):

Hypothesis 2a: Organizational culture (F-M)_{time1} predicts higher ambition_{time2} and ambition to become a full professor_{time2}, and lower intention to leave academia_{time2}, through increased work life balance_{time1}.

Hypothesis 2b: These effects will be stronger for women than for men.

Does FSSB relate to work engagement, work life balance, ambition, and intention to leave academia?

Family Supportive Supervisor Behaviour (FSSB) is a relatively new construct that encompasses supervisor support. FSSBs refer to trainable boundary-spanning social support-based resources (Voydanoff, 2005), provided by supervisors with the intention to be supportive of employees' abilities to fulfil family responsibilities. Generally, these behaviours incorporate work-based flexibility to permit employees to meet family demands (Hammer,

Kossek, Zimmerman & Daniels, 2007). FSSB consists of four subordinate dimensions: *emotional support, role modelling behaviours, instrumental support, and creative work-family management*. Emotional support refers to the perception one is being cared for, that one's feelings are being considered, and that one feels comfortable communicating about work-family issues with one's supervisor when needed. Role modelling behaviours refer to the demonstration of supervisors on how to integrate work and family through modelling behaviours on the job. In this way, supervisors signal to their employees what is acceptable behaviour concerning work life balance. Instrumental support is reactive in nature and refers to supervisor support as responding to one's work and family needs in the form of day-to-day management transactions, usually in the form of scheduling flexible work. Lastly, creative work-family management refers to managerial-initiated actions to restructure work to facilitate employee effectiveness on and off the job. For instance, this might involve major changes in time, place, and the work itself, in a way that simultaneously balances employees' work-family responsibilities with company needs (Hammer, Kossek, Yragui, Bodner & Hanson, 2009; Straub, 2012).

FSSBs may stimulate work engagement. FSSBs are conceptualized as boundary-spanning social support-based resources (Voydanoff, 2005), and are therefore regarded as a resource. In turn, resources are positively related to work engagement (Bakker et al., 2007). Research indicated that individuals with greater resources are less vulnerable to resource loss and more capable of resource gain (Hobfoll, 1989), which may lead to gain spirals. Gain spirals refer to processes where initial resources beget further resource gain (Matthews, Mills, Trout & English, 2014). Research confirmed the existence of a gain spiral between FSSBs and work engagement, as it indicated that FSSBs promote work engagement by creating positive experiences and emotions (Fredrickson, 2001). FSSBs also promote a climate that encourages employees to engage in novel ways of thinking and doing things. This in turn, facilitates employees' abilities to develop and obtain new skills, and this promotes work engagement (Nahrgang, Morgeson & Hofmann, 2011).

On top of the aforementioned gain spiral between FSSBs and work engagement, previous research indicated that organizations that provide family-friendly practices have more engaged employees (Matthews et al., 2014). This relationship seems to be stronger for individuals who have greater dependent care demands. That is, these individuals are more likely to seek family supportiveness from their supervisor. Accordingly, individuals with dependent care responsibilities whose managers engage in family supportive behaviours, possess over higher levels of work engagement (Matthews et al., 2014). Women presumably

have more care responsibilities by usually being the primary caretaker of children and taking care of family (Parcheta et al., 2013). Consequently, it is hypothesized that the relationship between FSSBs and work engagement is stronger for women. As previously mentioned, work engagement also predicts ambition (Jugde & Picolo, 2004), and is negatively associated with turnover intention (Saks, 2006). The following hypotheses are formulated (see Figure 1):

Hypothesis 3a: $FSSB_{time1}$ predicts higher $ambition_{time2}$ and ambition to become full professor $_{time2}$, and lower intention to leave academia $_{time2}$, through increased work engagement $_{time1}$.

Hypothesis 3b: This effect will be stronger for women than for men.

FSSBs seem to be a resource that permit more effective balancing of work responsibilities versus home responsibilities. In this way, FSSB is a resource that can help employees to manage family-related obligations, thereby freeing time and energy that employees can apply to their work obligations (Matthews et al., 2014). Accordingly, FSSBs seem to play an important role in reducing work family conflict (Kossek, Pichler, Bodner & Hammer, 2011). Therefore, it is hypothesized that FSSB predicts higher work life balance.

The relationship between FSSBs and work life balance might be stronger for women. FSSBs are regarded as a resource that might promote work life balance (Matthews et al., 2014), as well as play an important role in reducing work family conflict (Kossek et al., 2011). A work life balance is still more challenging for women than it is for men (Slaughter, 2015). Therefore, FSSBs might be more beneficial in helping the attainment of a work life balance for women. Thus, it is hypothesized that the relationship between FSSBs and a work life balance is stronger for women. As previously mentioned, work life balance is positively associated with ambition (Dijkers et al., 2010), and negatively associated with intention to leave academia (Noor, 2011), with hypothesized stronger effects for women. The following hypotheses are formulated (see Figure 1):

Hypothesis 4a: $FSSB_{time1}$ predicts higher $ambition_{time2}$ and ambition to become a full professor $_{time2}$, and lower intention to leave academia $_{time2}$, through increased work life balance $_{time1}$.

Hypothesis 4b: These effects will be stronger for women than for men.

Method

Participants and Procedure

An email invitation was sent to 910 assistant professors working at a large Dutch university. The email invited them to participate in an online follow-up questionnaire that focused on assistant professors with the aim to uncover factors that stimulate or impede their careers over time (response rate 38,5%). The email contained a link that directed participants to the questionnaire, which started when participants had given their consent. It contained 64 questions and was available in Dutch and English, with an estimated response time of approximately 23 minutes. The questionnaire contained several scales to enable the measurement of different constructs. Not all scales are displayed here, as some scales are beyond the scope of the present study. This study was approved by Utrecht University Ethics Committee of the Faculty of Social Sciences. Participants were able to withdraw their responses at any time.

Design

A two-wave longitudinal research design was examined in the present study, with one year in between measurements. The online follow-up questionnaire was sent to the same participants as the previous year. In order to draw longitudinal conclusions, the data of two waves had to be linked to one particular participant. In the first survey participants were asked to create a unique code by answering background questions. These questions were as follows: *'What is the first letter of your place of birth?'*, *'How many brothers and sisters do you have (include half-brothers and half-sisters)'*, *'What is/was your mother's year of birth? Please enter two digits, e.g., 55 to denote 1955'*, and *'What is/was the first letter of your father's name?'* In this second wave participants were asked to replicate this unique code. In this way, the data from two waves could be linked to one particular participant, enabling longitudinal conclusions, while fully ensuring anonymity of the participants.

Sample

In total, 350 assistant professors responded to the questionnaire. Subsequently, these 350 responses had to be matched to the data of the previous wave of this study. All participants were matched manually, based on the unique codes participants had created in the first wave. Firstly, all participants whose unique code matched perfectly with the codes of the first wave were matched. In this process, there was a check for the unique code, as well as the background variables (age, gender, and faculty) to ensure that this unique code represented

one particular participant in both waves of the study. Thereafter, the remaining unique codes were checked manually, to enable the matching of participants that made a mistake in their unique code. The mistake most commonly made was in the year of birth of the mother. For example, last year a participant might have reported code A054A, while this year reporting A053A. These participants were matched based on background variables (age, gender, and faculty). Participants with more than one mistake were not matched, because it was not possible to ensure that their code represented their data in both waves of the study. After completing this matching procedure, 207 participants were matched for longitudinal purposes. Consequently, the two datasets were merged for the longitudinal statistical analyses. All participants gave consent and none of the participants withdrew their responses. One participant reported the gender to be ‘other’, and was therefore removed from the dataset, because gender was used as a moderator in the analyses. Furthermore, one participant did not fill out age, and was removed from the dataset because age was used as a control variable in the analyses. The sample consisted of 205 participants, with 89 male participants and 116 female participants. The age of the participants ($M= 42.57$; $SD= 8.05$) varied from a minimum of 29 years to a maximum of 64 years.

Measures

All scales contained self-reported items measured at 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). This applied to all items in the questionnaire, unless specified otherwise. All scales are previously validated scales, and were computed by taking the mean’s of the items of the scale. In case of missing values, scales were computed as the mean of the existing items, provided that more than 50% of the scale was filled out. When less than 50% of the scale items were filled out, the scale value was recorded as missing. All scales and their corresponding items are represented in Appendix A.

Background variables. First, background variables were asked out through ten items. Examples of questions are ‘*What is your age?*’, and ‘*At which faculty do you work?*’.

Organizational culture (F-M). Both feminine organizational culture and masculine organizational culture were measured (Van Vianen & Fischer, 2002). Feminine organizational culture was measured with twenty-two items ($\alpha = .97$), and consisted of three scales (peer cohesion, $\alpha = .94$; participation, $\alpha = .93$; personal development, $\alpha = .94$). It included items such as: ‘*There is a collegial, supportive atmosphere*’, and ‘*Team membership is important*’. Masculine organizational culture was measured with eighteen items ($\alpha = .93$), and consisted of three scales (effort, $\alpha = .85$; work pressure, $\alpha = .88$; competition, $\alpha = .90$). It included items

such as: *'Performance comes first'*, and *'People demand a lot from each other'*. A feminine organizational culture scale and a masculine organizational culture scale were created by taking the mean of the corresponding scales. Thereafter, the masculine organizational culture value was subtracted from the female organizational culture value, so that a higher value equaled a more feminine organizational culture.

FSSB. Family Supportive Supervisor Behaviour was measured by a multidimensional scale that included seventeen items (Hammer et al., 2009; $\alpha = .96$). Items of this scale assessed the four subordinate dimensions of FSSB. Namely, emotional support (e.g., *'My supervisor takes the time to learn about my personal needs'*), role modelling behaviours (e.g., *'My supervisor is a good role model for work and nonwork balance'*), instrumental support (e.g., *'When necessary, I can depend on my supervisor to help me when my work schedule conflicts with private affairs'*), and creative work-family management (e.g., *'My supervisor works effectively with co-workers to creatively solve conflicts between work and private life'*).

Work life balance. Work life balance was measured with a scale consisting of five items (Greenhaus, Ziegert & Allen, 2012; $\alpha = .93$). This scale included items such as: *'I experience a good balance between my work and my private life'* and *'I balance my responsibilities at work and in my private life so that one does not suffer from the other'*.

Work engagement. Work engagement was measured by a scale of three items (Schaufeli & Bakker, 2004; $\alpha = .89$) The corresponding items were as follows: *'I am enthusiastic about my job'*, *'My job inspires me'*, and *'I am proud of the work I do'*.

Ambition. General work-related ambition was measured on a scale composed of five items (Dikkers et al., 2010; $\alpha = .83$), such as: *'I like to be challenged in my work'* and *'I am ambitious'*.

Ambition to become a full professor. Ambition to become a full professor was measured on a scale that contained three items (Dikkers et al., 2010; $\alpha = .96$). The corresponding items were as follows: *'I want to achieve the level of full professor'*, *'I have the ambition to become a full professor'*, and *'I am not really interested in becoming a full professor'*.

Estimated chance of staying in academia. The intention to leave academia was measured by this one item: *'On a scale from 0% to 100%, how high do you estimate the chance that you will still be in academia in 5 years time?'* Participants were then instructed to drag a slider to the percentage that they saw fit as their response to the question.

Results

Descriptive statistics and correlations

Descriptive statistics and correlations of all study variables are shown in Table 1. Overall, participants scored the academic organizational culture as more masculine ($M = -.69$). Participants scored relatively high on work engagement ($M = 5.36$) and chance to stay in academia ($M = 77.81$), and moderately on work life balance ($M = 3.98$) and FSSB ($M = 4.00$). As expected, a feminine organizational culture correlated positively and significantly with work engagement ($r = .41$), and work life balance ($r = .40$). Accordingly, FSSB correlated positively and significantly with work engagement ($r = .35$), and work life balance ($r = .28$). Age was used as a control variable in the analyses for dependent variables that correlated significantly with age. Unexpectedly, no study variables correlated significantly with gender or parenthood status. As could be expected, time 1 and time 2 measures strongly correlated. Lastly, $\text{ambition}_{\text{time2}}$ and $\text{ambition to become a full professor}_{\text{time2}}$ are strongly correlated ($r = .68$). However, $\text{ambition}_{\text{time2}}$ and $\text{ambition to become full professor}_{\text{time2}}$ are not perfectly correlated with a perfect correlation of $r = 1$. Evidently, $\text{ambition}_{\text{time2}}$ and $\text{ambition to become full professor}_{\text{time2}}$ are separate constructs. Interestingly, participants generally scored higher on general ambition ($M = 5.38$) than ambition to become a full professor ($M = 4.42$).

Gender differences

Noteworthy, no significant gender differences were found on the study variables. Independent samples t-tests indicated no significant differences in organizational culture (F-M) $_{\text{time1}}$ for male ($M = -.59$, $SE = .20$) and female participants ($M = -.76$, $SE = .17$), $t(198) = .66$, $p = .51$, nor in FSSB $_{\text{time1}}$ for male ($M = 4.07$, $SE = .16$) and female participants ($M = 3.95$, $SE = .13$), $t(198) = .63$, $p = .53$. No significant differences work engagement $_{\text{time1}}$ were found for male ($M = 5.44$, $SE = .11$) and female participants ($M = 5.30$, $SE = .09$), $t(196) = 1.04$, $p = .30$, nor in work life balance $_{\text{time1}}$ for male ($M = 4.14$, $SE = .17$) and female participants ($M = 3.87$, $SE = .14$), $t(196) = 1.22$, $p = .22$. Neither was a significant difference found in $\text{ambition}_{\text{time2}}$ for male ($M = 5.22$, $SE = .11$) and female participants ($M = 5.49$, $SE = .10$), $t(191) = -1.87$, $p = .06$, nor in $\text{ambition to become a full professor}_{\text{time2}}$ for male ($M = 4.60$, $SE = .22$) and female participants ($M = 4.30$, $SE = .19$), $t(191) = 1.01$, $p = .32$. Lastly, no significant differences were found in chance to stay in academia $_{\text{time2}}$ for male ($M = 80.15$, $SE = 2.14$) and female participants ($M = 76.18$, $SE = 2.13$), $t(184.1) = 1.32$, $p = .19$.

Table 1. Correlations, means, and standard deviations variables

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Gender ^a	-	-	-																
2. Parent ^b	-	-	.00	-															
3. Age	42.57	8.05	.01	-.13	-														
4. Culture(F-M) _{time1}	-69	1.83	-.05	-.05	-.24**	-													
5. FSSB _{time1}	4.00	1.41	-.04	.04	-.28**	.57**	-												
6. Work engagement _{time1}	5.36	1.00	-.07	-.01	-.13	.41**	.35**	-											
7. Work life balance _{time1}	3.98	1.52	-.09	-.08	-.16*	.40**	.28**	.25**	-										
8. Ambition _{time1}	5.45	0.96	.13	.00	-.21**	-.01	.02	.36**	-.01	-									
9. Ambition professor _{time1}	4.46	1.91	-.05	.05	-.33**	-.01	.12	.28**	-.02	.61**	-								
10. Chance to stay in academia _{time1}	77.94	19.65	-.07	.12	.05	.32**	.10	.45**	.10	.13	.09	-							
11. Culture(F-M) _{time2}	-69	1.76	-.02	.06	-.23**	.71**	.38**	.24**	.29**	-.05	-.11	.27**	-						
12. FSSB _{time2}	4.12	1.42	.01	.10	-.27**	.30**	.59**	.18*	.22**	-.01	.10	.15*	.38**	-					
13. Work engagement _{time2}	5.20	1.11	-.11	-.01	-.14*	.33**	.24**	.67**	.21**	.24**	.22**	.41**	.40**	.25**	-				
14. Work life balance _{time2}	4.01	1.43	-.07	-.10	-.19*	.26**	.14*	.12	.70**	-.00	-.01	.07	.33**	.19**	.20**	-			
15. Ambition _{time2}	5.38	1.03	.13	-.04	-.25**	.01	-.03	.37**	.06	.78**	.61**	.17*	-.00	.05	.34**	.10	-		
16. Ambition professor _{time2}	4.42	2.02	-.07	.00	-.33**	-.01	.06	.28**	.08	.59**	.83**	.09	-.01	.10	.29**	.09	.68**	-	
17. Chance to stay in academia _{time2}	77.81	21.31	-.09	.11	-.07	.19**	-.02	.36**	.05	.16*	.15*	.67**	.28**	.13	.46**	.13	.15*	.19**	-

Note: *. Correlation significant at the .05 level. **. Correlation is significant at the .01 level. $r = .10$ (weak correlation), $r = .30$ (average correlation) and $r = .50$ (strong correlation). ⁰=male, ¹=female, ⁰=parent, ¹=no parent.

Hypotheses testing

In all analyses (i.e., hierarchical regressions and (moderated) mediation analyses) with dependent variables $\text{ambition}_{\text{time}2}$ and $\text{ambition to become full professor}_{\text{time}2}$ there was controlled for age and time 1 measures of these dependent variables. In all analyses with dependent variable $\text{chance to stay in academia}_{\text{time}2}$ there was only controlled for this dependent variable at time 1. Hierarchical multiple regression analyses were conducted for all dependent variables. Subsequently, the outcome of these regressions determined the predictors in the mediation analyses. In case of a significant mediation effect, moderated mediation analyses were conducted for hypothesized gender moderations. The mediation analyses were conducted using model 4, whereas the moderated mediation analyses were conducted using model 7 (*hypothesis 3b*) or 58 (*hypotheses 2b and 4b*) of PROCESS v3.0 for SPSS (Hayes, 2009). The (conditional) indirect effects were computed with 5000 bootstrapped samples and a 95% confidence interval. In the following section, information is provided about the results of these analyses per hypothesis.

Hypothesis 1

In *hypothesis 1a* it was hypothesized that the organizational culture $(F-M)_{\text{time}1}$ predicts higher $\text{ambition}_{\text{time}2}$ and higher $\text{ambition to become full professor}_{\text{time}2}$, and lower intention to leave $\text{academia}_{\text{time}2}$, through increased $\text{work engagement}_{\text{time}1}$.

Hierarchical multiple regressions. Hierarchical multiple regressions were conducted for all dependent variables: $\text{ambition}_{\text{time}2}$, $\text{ambition to become a full professor}_{\text{time}2}$, and $\text{chance to stay in academia}_{\text{time}2}$ (see Table 2). The regressions indicated that $\text{work engagement}_{\text{time}1}$ significantly predicted $\text{ambition}_{\text{time}2}$.

Mediation analysis. A mediation analysis was conducted with organizational culture $(F-M)_{\text{time}1}$ as predictor variable, $\text{work engagement}_{\text{time}1}$ as mediator, and $\text{ambition}_{\text{time}2}$ as dependent variable. $\text{Work engagement}_{\text{time}1}$ did not mediate the relationship between organizational culture $(F-M)_{\text{time}1}$ and $\text{ambition}_{\text{time}2}$ ($b = .03$, 95% CI [-.00, .06]). Therefore, *hypothesis 1a* and *1b* were not confirmed.

Table 2. Hierarchical Regression Analysis Hypothesis 1a.

Regression Ambition _{time2} , mediated by work engagement				
Variables	Step 1	Step 2	Step 3	Step 4
Control variable				
Age	-.25**	-.12*	-.11*	-.12*
Control variable				
Ambition _{time1}		.76**	.76**	.72**
Organizational culture (F-M) _{time1}			.01	-.03
Work engagement _{time1}				.11*
Summary statistics				
R ²	.06	.62	.62	.63
R ² change	.06	.56	.00	.01
F change	12.47**	269.34**	.08	4.40*
Regression Ambition to become full professor _{time2} , mediated by work engagement				
Variables	Step 1	Step 2	Step 3	Step 4
Control variable				
Age	-.35**	-.11*	-.11*	-.12**
Control variable				
Ambition to become full professor _{time1}		.80**	.80**	.77**
Organizational culture (F-M) _{time1}			-.02	-.05
Work engagement _{time1}				.07
Summary statistics				
R ²	.12	.70	.70	.70
R ² change	.12	.58	.00	.00
F change	25.69**	354.13**	.18	2.49
Regression Chance to stay in academia _{time2} , mediated by work engagement				
Variables	Step 1	Step 2	Step 3	
Control variable				
Chance to stay in academia _{time1}	.67**	.68**	.65**	
Organizational culture (F-M) _{time1}		-.04	-.06	
Work engagement _{time1}			.08	
Summary statistics				
R ²	.44	.45	.45	
R ² change	.44	.00	.01	
F change	148.70**	.53	1.71	

Note. Beta coefficients are depicted. *p≤.05. **p≤.01.

Hypothesis 2

In *hypothesis 2a* it was hypothesized that the organizational culture (F-M)_{time1} predicts higher ambition_{time2} and higher ambition to become full professor_{time2}, and lower intention to leave academia_{time2}, through increased work life balance_{time1}.

Hierarchical multiple regressions. Hierarchical multiple regressions were conducted for all dependent variables: ambition_{time2}, ambition to become a full professor_{time2}, and chance to stay in academia_{time2} (see Table 3). The regressions indicated that work life balance_{time1} significantly predicted ambition to become full professor_{time2}.

Mediation analysis. A mediation analysis was conducted with organizational culture (F-M)_{time1} as predictor variable, work life balance_{time1} as mediator, and ambition to become full professor_{time2} as dependent variable (see Figure 2). Work life balance_{time1} fully mediated the relationship between organizational culture (F-M)_{time1} and ambition to become full professor_{time2} ($b = .04$, 95% CI [.00, .09]). Therefore, *hypothesis 2a* with ambition to become full professor_{time2} as dependent variable was confirmed.

Moderated Mediation analysis. In *hypothesis 2b* it was hypothesized that the effect of organizational culture (F-M)_{time1} on work life balance_{time1} would be stronger for women, as well as the effect of work life balance_{time1} on ambition to become full professor_{time2}. Therefore, a moderated mediation analysis was conducted to test *hypothesis 2b* with ambition to become full professor_{time2} as dependent variable. No significant conditional indirect effect of moderator gender was found in the mediation wherein organizational culture (F-M)_{time1} predicts ambition to become a full professor_{time2}, mediated by work life balance_{time1} ($index = -.02$, 95% CI [-.14, .07]). Therefore, *hypothesis 2b* was not confirmed.

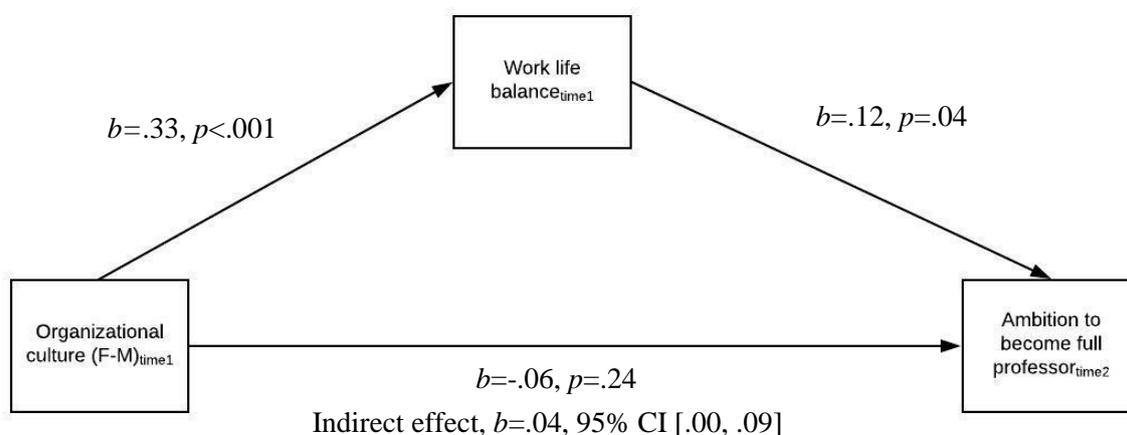


Figure 2. Model of organizational culture (F-M)_{time1} as predictor of ambition to become full professor_{time2}, mediated by work life balance_{time1}.

Table 3. Hierarchical Regression Analysis Hypothesis 2a.

Regression Ambition _{time2} , mediated by work life balance				
Variables	Step 1	Step 2	Step 3	Step 4
Control variable				
Age	-.25**	-.12*	-.11*	-.11*
Control variable				
Ambition _{time1}		.76**	.76**	.76**
Organizational culture (F-M) _{time1}			.01	-.01
Work life balance _{time1}				.05
Summary statistics				
R ²	.06	.62	.62	.62
R ² change	.06	.56	.00	.00
F change	12.47**	269.34**	.08	.82
Regression Ambition to become full professor _{time2} , mediated by work life balance				
Variables	Step 1	Step 2	Step 3	Step 4
Control variable				
Age	-.35**	-.11*	-.11*	-.11*
Control variable				
Ambition to become full professor _{time1}		.80**	.80**	.80**
Organizational culture (F-M) _{time1}			-.02	-.05
Work life balance _{time1}				.09*
Summary statistics				
R ²	.12	.70	.70	.70
R ² change	.12	.58	.00	.01
F change	25.69**	354.13**	.18	4.09*
Regression Chance to stay in academia _{time2} , mediated by work life balance				
Variables	Step 1	Step 2	Step 3	
Control variable				
Chance to stay in academia _{time1}	.67**	.68**	.68**	
Organizational culture (F-M) _{time1}		-.04	-.04	
Work life balance _{time1}			.00	
Summary statistics				
R ²	.44	.45	.45	
R ² change	.44	.00	.00	
F change	148.70**	.53	.01	

Note. Beta coefficients are depicted. *p≤.05. **p≤.01.

Hypothesis 3

In *hypothesis 3a* it was hypothesized that $FSSB_{time1}$ predicts higher $ambition_{time2}$ and higher ambition to become full professor $_{time2}$, and lower intention to leave academia $_{time2}$, through increased work engagement $_{time1}$.

Hierarchical multiple regressions. Hierarchical multiple regressions were conducted for all dependent variables: $ambition_{time2}$, ambition to become a full professor $_{time2}$, and chance to stay in academia $_{time2}$ (see Table 4). The regressions indicated that $FSSB_{time1}$ and work engagement $_{time1}$ significantly predicted $ambition_{time2}$. Furthermore, $FSSB_{time1}$ significantly predicted chance to stay in academia $_{time2}$.

Mediation analyses. Two mediation analyses were conducted. Firstly, a mediation analysis was conducted with $FSSB_{time1}$ as predictor variable, work engagement $_{time1}$ as mediator, and $ambition_{time2}$ as dependent variable (see Figure 3). Work engagement $_{time1}$ partially mediated the relationship between $FSSB_{time1}$ and $ambition_{time2}$ ($b = .03$, 95% CI [.01, .07]). A significant direct effect was also found ($b = -.08$, $p = .04$)¹. Therefore, *hypothesis 3a* with $ambition_{time2}$ as dependent variable was confirmed.

Thereafter, a mediation analysis was conducted with $FSSB_{time1}$ as predictor variable, work engagement $_{time1}$ as mediator, and chance to stay in academia $_{time2}$ as dependent variable. Work engagement $_{time1}$ did not mediate the relationship between $FSSB_{time1}$ and chance to stay in academia $_{time2}$ ($b = .48$, 95% CI [-.19, 1.15]). However, there was a significant direct effect between $FSSB_{time1}$ and chance to stay in academia $_{time2}$ ($b = -1.95$, $p = .02$)¹. Therefore, *hypothesis 3a* with chance to stay in academia $_{time2}$ as dependent variable was not confirmed.

Moderated Mediation analysis. In *hypothesis 3b* it was hypothesized that the effect of $FSSB_{time1}$ on work engagement $_{time1}$ would be stronger for women. Therefore, a moderated mediation analysis was conducted to test *hypothesis 3b* with $ambition_{time2}$ as dependent variable. No significant conditional indirect effect of moderator gender was found in the mediation wherein $FSSB_{time1}$ predicts $ambition_{time2}$, mediated by work engagement $_{time1}$ ($index = -.00$, 95% CI [-.03, .03]). Therefore, *hypothesis 3b* was not confirmed.

¹ This mediation analysis yielded a negative direct effect and a positive indirect effect, which may be due to the suppression effect. For an elaborate explanation please see MacKinnon, Krull & Lockwood (2000).

Table 4. Hierarchical Regression Analysis Hypothesis 3a.

Regression Ambition _{time2} , mediated by work engagement				
Variables	Step 1	Step 2	Step 3	Step 4
Control variable				
Age	-.25**	-.12*	-.13**	-.14**
Control variable				
Ambition _{time1}		.76**	.75**	.70**
FSSB _{time1}			-.06	-.10*
Work engagement _{time1}				.14*
Summary statistics				
R ²	.06	.62	.62	.63
R ² change	.06	.56	.00	.01
F change	12.47**	269.34**	1.38	7.05*
Regression Ambition to become full professor _{time2} , mediated by work engagement				
Variables	Step 1	Step 2	Step 3	Step 4
Control variable				
Age	-.35**	-.11*	-.12**	-.13**
Control variable				
Ambition to become full professor _{time1}		.80**	.80**	.78**
FSSB _{time1}			-.05	-.08
Work engagement _{time1}				.08
Summary statistics				
R ²	.12	.70	.70	.71
R ² change	.12	.58	.00	.01
F change	25.69**	354.13**	1.56	3.14
Regression Chance to stay in academia _{time2} , mediated by work engagement				
Variables	Step 1	Step 2	Step 3	
Control variable				
Chance to stay in academia _{time1}	.67**	.68**	.63**	
FSSB _{time1}		-.10	-.13*	
Work engagement _{time1}			.11	
Summary statistics				
R ²	.44	.45	.46	
R ² change	.44	.01	.01	
F change	148.70**	3.41	3.12	

Note. Beta coefficients are depicted. *p≤.05. **p≤.01.

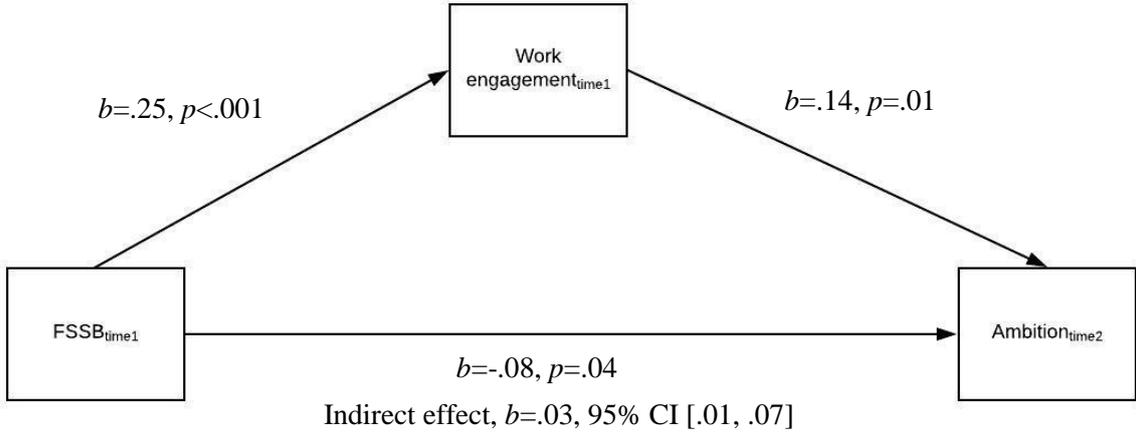


Figure 3. Model of FSSB_{time1} as predictor of ambition_{time2}, mediated by work engagement_{time1}.

Hypothesis 4

In *hypothesis 4a* it was hypothesized that $FSSB_{time1}$ predicts higher $ambition_{time2}$ and higher ambition to become full professor $_{time2}$, and lower intention to leave academia $_{time2}$, through increased work life balance $_{time1}$.

Hierarchical multiple regressions. Hierarchical multiple regressions were conducted for all dependent variables: $ambition_{time2}$, ambition to become a full professor $_{time2}$, and chance to stay in academia $_{time2}$ (see Table 5). The regressions indicated that work life balance $_{time1}$ significantly predicted ambition to become full professor $_{time2}$.

Mediation analysis. A mediation analysis was conducted with $FSSB_{time1}$ as predictor variable, work life balance $_{time1}$ as mediator, and ambition to become full professor $_{time2}$ as dependent variable (see Figure 4). Work life balance $_{time1}$ fully mediated the relationship between $FSSB_{time1}$ and ambition to become full professor $_{time2}$ ($b = .04$, 95% CI [.00, .09]). Therefore, *hypothesis 4a* with ambition to become full professor $_{time2}$ as dependent variable was confirmed.

Moderated mediation analysis. In *hypothesis 4b* it was hypothesized that the effect of $FSSB_{time1}$ on work life balance $_{time1}$ would be stronger for women, as well as the effect of work life balance $_{time1}$ on ambition to become full professor $_{time2}$. Therefore, a moderated mediation analysis was conducted to test *hypothesis 4b* with ambition to become full professor $_{time2}$ as dependent. No significant conditional indirect effect of moderator gender was found in the mediation wherein $FSSB_{time1}$ predicts ambition to become a full professor $_{time2}$, mediated by work life balance $_{time1}$ ($index = -.02$, 95% CI [-.11, .07]). Therefore, *hypothesis 4b* was not confirmed.

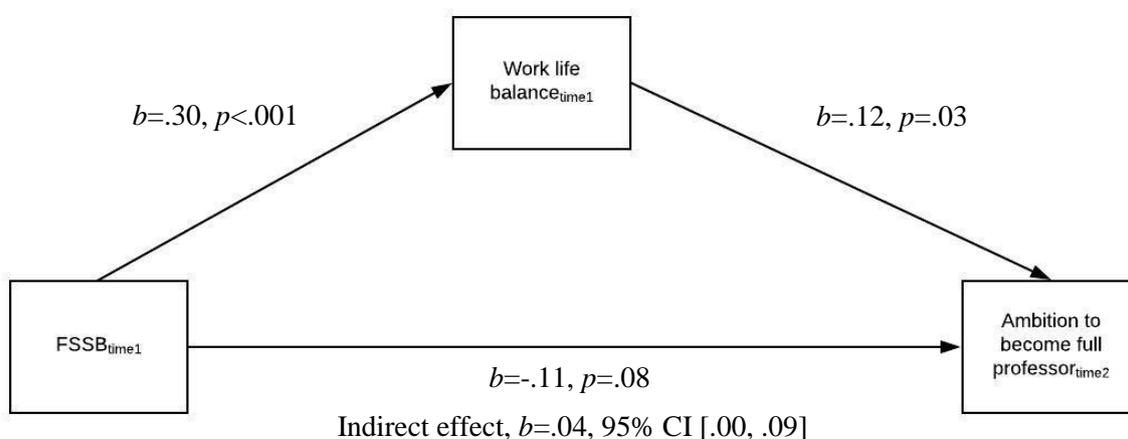


Figure 4. Model of $FSSB_{time1}$ as predictor of ambition to become full professor $_{time2}$, mediated by work life balance $_{time1}$.

Table 5. Hierarchical Regression Analysis Hypothesis 4a.

Regression Ambition _{time2} , mediated by work life balance				
Variables	Step 1	Step 2	Step 3	Step 4
Control variable				
Age	-.25**	-.12*	-.13**	-.13**
Control variable				
Ambition _{time1}		.76**	.75**	.75**
FSSB _{time1}			-.06	-.07
Work life balane _{time1}				.06
Summary statistics				
R ²	.06	.62	.62	.62
R ² change	.06	.56	.00	.00
F change	12.47**	269.34**	1.38	1.72
Regression Ambition to become full professor _{time2} , mediated by work life balance				
Variables	Step 1	Step 2	Step 3	Step 4
Control variable				
Age	-.35**	-.11*	-.12**	-.11*
Control variable				
Ambition to become full professor _{time1}		.80**	.80**	.80**
FSSB _{time1}			-.05	-.08
Work life balance _{time1}				.09*
Summary statistics				
R ²	.12	.70	.70	.71
R ² change	.12	.58	.00	.01
F change	25.69**	354.13**	1.56	4.55*
Regression Chance to stay in academia _{time2} , mediated by work life balance				
Variables	Step 1	Step 2	Step 3	
Control variable				
Chance to stay in academia _{time1}	.67**	.68**	.68**	
FSSB _{time1}		-.10	-.11	
Work life balance _{time1}			.02	
Summary statistics				
R ²	.44	.45	.45	
R ² change	.44	.01	.00	
F change	148.70**	3.41	.11	

Note. Beta coefficients are depicted. *p≤.05. **p≤.01.

Discussion

Although the percentage of female professors in the Netherlands reached a milestone of 20% for the first time, academia is still overrepresented by male professors (LNVH, 2018). Therefore, the present study aimed to examine how various resources contribute to the career advancement of (female) academics over time. Up till now, the processes that stimulate the career advancement of academics over time have not yet been identified. With the goal to identify these processes over time, the present study examined whether a *feminine academic organizational culture* and *FSSB* predicted higher ambition (i.e., general and to become a full professor), and lower intention to leave academia of academics one year later, through increased work engagement or work life balance.

Consistent with previous research (Knights et al., 2003), the current study demonstrates that academics perceive the academic organizational culture as more masculine. The current study shows that academics report their supervisors relatively low on FSSBs, as well as reporting not having a balance in work and private life. However, academics do report being engaged in their work, as well as reporting a relatively high chance to remain working in academia. Lastly, the current findings indicate that general ambition and ambition to become a full professor are separate constructs, for these constructs are highly but not perfectly correlated. Academics generally report higher general ambition than ambition to become a full professor.

The present study aimed to examine processes that stimulate the career advancement of (female) academics to become professors over time. The current results reveal that FSSB predicts higher general ambition one year later, through increased work engagement. By making use of a longitudinal research design, the current findings contribute to the existing literature by indicating a causal pathway wherein FSSB causes higher general ambition, through increased work engagement. This means that supervisors who provide specific family-related support positively influence the general ambition of their employees one year later, by stimulating employee work engagement. This result supports previous literature that indicated that support by supervisors leads to positive work-related outcomes (e.g., employee job satisfaction), through increased work engagement (Ram & Prabhakar, 2011).

As expected, the current findings reveal that a feminine organizational culture predicts higher ambition to become a full professor one year later, through increased work life balance. Accordingly, results reveal that FSSB predicts higher ambition to become a full professor one year later, through increased work life balance. By making use of a longitudinal research design, the current findings contribute to the existing literature by indicating causal

pathways wherein a feminine organizational culture as well as FSSB cause higher ambition to become a full professor, through increased work life balance. This means that both a supportive feminine organizational culture and supervisors providing specific family-related support, positively influence employee ambition to advance in one's career (i.e., ambition to become a full professor), by stimulating employee work life balance. These results are in line with previous literature that indicated that a work life balance stimulates career advancement (Lyness & Judiesch, 2008). Furthermore, the current results imply that feminine organizational cultures and FSSBs are essential resources that stimulate the career advancement of academics by improving a balance between work and private life.

Unexpectedly, current results do not demonstrate significant gender differences. This indicates that both male and female academics have an equal perception of the academic organizational culture. Furthermore, this indicates that male and female academics have an equal perception of the extent to which their supervisors engage in FSSBs. The current results do not indicate gender differences in work engagement. This is in line with previous research that suggested no gender differences in work engagement (Schaufeli et al., 2006). Moreover, the current results do not indicate gender differences regarding work life balance. This contradicts previous research that suggested that a work life balance is still more challenging for women than for men (Slaughter, 2015). Lastly, the current results do not indicate gender differences in ambition. All academics report being equally ambitious, in as well general ambition as the ambition to become a full professor. This is not in line with previous research, which suggested that women might lack ambition (Hakim, 2000).

Additionally, the current data do not indicate gender differences in the confirmed processes that stimulate the career advancement of academics. This means that there are no gender differences in the process wherein supervisors engaging in FSSBs positively influence the general ambition of employees by stimulating their work engagement. Previous research indicated that FSSBs are more beneficial for individuals with more care responsibilities, through increased work engagement (Matthews et al., 2014). Therefore, it is often implied that women benefit more from FSSBs, by having more care responsibilities than men (Parcheta et al., 2013). However, current results indicate that not just women benefit from FSSBs. It indicates that FSSBs cause higher general ambition through increased work engagement, and that this process applies equally to *all* academics.

Furthermore, the current results do not indicate gender differences in the processes wherein a feminine organizational culture or FSSB positively influence academics' ambition to become a full professor, by stimulating their work life balance. It is often implied that a

work life balance is still more challenging for women than for men (Slaughter, 2015) and that women benefit more from resources such as a feminine organizational culture and FSSBs to increase their work life balance. However, current results among academics indicate no gender differences in the processes wherein a feminine organizational culture or FSSB cause higher ambition to become a full professor, through increased work life balance. This implies that *all* academics benefit equally from a supportive organizational culture and FSSBs to stimulate their career advancement, by improving a balance between work and private life.

Theoretical Implications

Interestingly, the current data do not indicate that a feminine organizational culture predicts higher general ambition and lower intention to leave academia of academics one year later. Thus, even though a feminine organizational culture is a resource that stimulates work engagement and work life balance, the current data suggest that this does not predict ambitions and intentions to leave of academics. When looking at possible explanations, cultural organizational preferences might play a role. Cultural preferences are partly based on earlier experiences and personality characteristics, and previous research suggested that individuals who consider themselves very ambitious probably have a cultural preference for a competitive organizational environment (Van Vianen & Fischer, 2002). The current data indicate that all academics score relatively high on ambition and ambition to become a full professor. Therefore, it is assumed that academics are ambitious individuals with a preference for a competitive (masculine) organizational culture. Presumably, this provides for a person-organization fit between academics and the academic organizational culture, which negatively relates to turnover intentions (Kristof-Brown, Zimmerman & Johnson, 2005). Furthermore, research indicated that individuals with preferences for masculine organizational cultures emphasize the importance of competitiveness and achievements, which refer to higher levels of ambitions (Van Vianen & Fischer, 2002). Thus, it might be that a more masculine organizational culture instead of a more feminine organizational culture evokes ambition for ambitious academics.

Other interesting results indicate a direct effect where FSSB predicts the chance to stay in academia one year later. Interestingly, in the mediation model this direct effect is negative. This is probably due to the suppression effect, which is characterized by an inconsistent mediation model where the mediated and direct effect have opposite signs. In turn, the statistical removal of a mediational effect could possibly increase the magnitude of the relationship between the independent and dependent variable (Mackinnon, Krull &

Lockwood, 2000). Furthermore, current results do not indicate that FSSB predicts lower intention to leave academia one year later, through increased work engagement or work life balance. Previous work engagement and work life balance research might provide for alternative explanations. For instance, research indicated that work engagement only has a moderate negative relationship with turnover intentions (Halbsleben & Wheeler, 2008). Moreover, research indicated that a conflict between work and family does not result in higher turnover intentions when the conflict is caused by demands in the family domain. In other words, when the family situation has not changed it is likely that the conflict remains, even when employees change their jobs (Frone, 2003). Therefore, these mediator variables might have been insufficient to predict the intention to leave academia.

Strengths, limitations, and directions for future research

A strength of the current study is the examination of *processes* that stimulate the career advancement of academics over time. Hereby, the mechanisms that establish the relationships between the constructs are revealed. However, important additional aspects of the variables that are included in the mechanisms are not examined. For instance, the present study indicates that FSSB causes general ambition one year later, through increased work engagement. However, it does not clarify *why* supervisors engage in FSSBs. Research indicated that supervisors with more childcare responsibilities than their employees provided more family support (Li & Bagger, 2011), which possibly is an alternative explanation for the tendency of supervisors to engage in FSSBs. It is recommended that future research focuses on clarifying important additional aspects of the study variables.

Another strength of the current research is its longitudinal research design, thereby enabling strong evidence on the causal order of variables (Taris & Kompier, 2003). However, the present study does not analyze variables in all temporal orders possible because this is beyond the scope of this study. The present study does not examine reversed (where Y influences X; Zapf, Dormann, & Frese, 1996) or reciprocal (where X and Y mutually influence each other) causality (De Lange, Taris, Kompier, Houtman & Bongers, 2003). For instance, it is examined whether work engagement predicts general ambition. However, it might be that ambitious employees are more engaged in their work. Research indicated that ambition is closely related to achievement striving, which falls under ambitious behaviour (Stam et al., 2012). In turn, achievement striving is positively associated with work engagement (Hallberg, Johansson & Schaufeli, 2007). This implies a possible reversed causal relationship between ambition and work engagement. Therefore, it is recommended that

future research examines reversed or reciprocal causal relationships between the study variables.

Finally, due to practical reasons (i.e., to keep the questionnaire short) the construct of intention to leave academia is measured with one self-developed item. This item might be insufficiently reliable to operationalize the construct of intention to leave academia. Therefore, it is recommended that future research uses a previously validated and reliable scale to operationalize intention to leave academia (e.g., the three-item turnover intentions measure by Brough and Frame (2004)), to ensure valid and reliable results.

Practical implications

Few recommendations for practice are provided to stimulate the career advancement of academics. The current findings confirm the beneficial effect of a feminine organizational culture as a resource to stimulate the career advancement of academics. Specifically, it is confirmed that a feminine organizational culture increases the ambition of academics to become full professors, thereby stimulating academics' work life balance. Therefore, it is recommended that academia attempts to create a more feminine organizational culture. In doing so, academia should attempt to implement more organizational support, participation, and collaboration within the organization.

Additionally, the current findings confirm the beneficial effect of FSSB as a resource to stimulate the career advancement of academics. Specifically, it is confirmed that FSSB stimulates academics' work engagement and work life balance. Furthermore, FSSB increases both general ambition and the ambition to become a full professor of academics. Therefore, it is recommended that academia invests in FSSB trainings for their supervisors. These trainings create a greater understanding among supervisors of how to actually engage in FSBBs (Hammer, Kossek, Anger, Bodner & Zimmerman, 2011). This enables supervisors to provide emotional support, instrumental support, role modeling behaviours and creative work-family management to their employees. Research indicated that these trainings lead to improved work-related outcomes such as enhanced employee job satisfaction.

Lastly, the current findings do not indicate gender differences in the confirmed processes that stimulate the career advancement of academics. It is often implied that women benefit more from resources such as a feminine organizational culture or FSSBs. However, results indicate that *all* academics are influenced equally in the processes that stimulate academics' career advancement. Therefore, it is of essence that these processes do not place an emphasis on women alone. Thus, it is recommended that academia implements generic

policies of organizational and specific family-oriented supervisor support in order to stimulate the career advancement of *all* academics.

Conclusion

The goal of the present study was to identify processes that stimulate the career advancement of academics over time. Results demonstrated that a feminine organizational culture and FSSB are both resources that related to several positive work-related outcomes. A feminine organizational culture resulted in higher ambitions to become a full professor, by improving a balance between work and private life. Accordingly, FSSB resulted in higher general ambition and ambition to become a full professor, by stimulating employee engagement and improving a balance between work and private life. From this we can conclude that engaged employees with a balance in work and life activities remain ambitious, and that the organizational culture and its supervisors have a pivotal role in the ambitions of employees.

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Appendix A

Complete scales

All scales were self-reported and measured at 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree).

Male organizational culture (Van Vianen & Fischer, 2002)

The department in which I work is a department where...

1. Work is considered more important than leisure time
2. Employees are expected to commit themselves more to their job than is strictly necessary
3. Working overtime is considered normal
4. It is customary that employees are still busy with their work during their time off
5. Employees are willing to work more hours than is in their contract
6. Performance comes first
7. There are clear performance standards
8. There is performance pressure
9. Emphasis is on 'wanting to excel'
10. People demand a lot from each other
11. High demands are placed on the employees
12. Employees themselves want to be 'the best'
13. An atmosphere of competition exists between employees
14. Mutual competition is allowed
15. Employees strive to perform better than others
16. Employees do a lot to make their mark
17. Employees are challenged to compete with others
18. You have to prove yourself

Female organizational culture (Van Vianen & Fischer, 2002)

The department in which I work is a department where...

1. There is a collegial, supportive atmosphere
2. The unity of the group comes first
3. Employees not only meet the job requirements, but also fit in the group

4. Team membership is important
5. An atmosphere of loyalty is present
6. There is a clear 'team membership'
7. Managers and employees trust each other
8. Employees are interested in each other's work
9. There is a lot of laughter
10. Attention is paid to introducing new employees
11. When taking decisions, the interest of all employees are taken into account
12. Employees are given the opportunity to develop their own initiatives
13. Employees can influence the decisions that need to be made
14. Employees are encouraged to contribute to decision-making
15. Communication is a 'two-way street' between management and employees
16. There are few secrets for employees
17. Development of employees' potential is seen as important
18. Challenging tasks are offered
19. The management thinks along with the wishes and expectations of employees
20. The capacities of employees are carefully monitored to allow for career advancement
21. Employees are given the opportunity to further develop themselves
22. Individual wishes and needs for development are taken into account

FSSB (Hammer et al., 2009)

The following questions are about your supervisor.

With supervisor we mean the person with whom you have your assessment and development (B&O) interview.

1. My supervisor is willing to listen to problems I may have in juggling work and nonwork life
2. My supervisor takes the time to learn about my personal needs
3. My supervisor makes me feel comfortable talking to him/her about difficulties in combining my work and nonwork life
4. My supervisor and I are able to talk about solving difficulties in combining my work and nonwork life
5. When necessary, I can depend on my supervisor to help me when my work schedule conflicts with private affairs

6. I can rely on my supervisor to make sure my work responsibilities are handled when I have unanticipated demands in my private life
7. My supervisor works effectively with coworkers to creatively solve conflicts between work and private life
8. My supervisor is a good role model for work and nonwork balance
9. My supervisor demonstrates effective behaviours in how to juggle work and nonwork life
10. My supervisor demonstrates how a person can jointly be successful on and off the job
11. My supervisor considers how the tasks in my department can be organized in such a way that they benefit the organization while at the same time allowing employees to have a life outside work
12. My supervisor asks for suggestions to make it easier for employees to combine work and nonwork demands
13. My supervisor is creative in reallocating tasks to allow employees to meet their work responsibilities as well as their responsibilities outside of their job
14. My supervisor is able to manage the department as a whole team in which everyone's needs are met

Work life balance (Greenhaus, Ziegert & Allen, 2012)

To what extent do the following statements about combining work and private life apply to you?

With private life/life at home we mean the life you have next to your work, so with your partner/children/family/friends/hobbies/etc...

1. I am able to balance the demands of my work and the demands of my private life
2. I am satisfied with the balance I have achieved between my work life and my private life
3. Overall, I believe that my work life and private life are **out** of balance (REVERSED)
4. I balance my responsibilities at work and in my private life so that one does not suffer from the other
5. I experience a good balance between my work and my private life

Work Engagement (Schaufeli & Bakker, 2004)

The following statements are about your work experience. To what extent do the following statements apply to you?

1. I am enthusiastic about my job
2. My job inspires me
3. I am proud of the work that I do

Ambition (Dikkers, van Engen & Vinkenburg, 2010)

To what extent do the following statements about work goals apply to you at the moment?

1. I like to be challenged in my work
2. I am ambitious
3. A career is important for my self-actualization and self-development
4. I have set high goals for my career
5. My career is not a priority in my life (REVERSED)

Ambition to become full professor (Dikkers, van Engen & Vinkenburg, 2010)

1. I want to achieve the level of full professor
2. I have the ambition to become a full professor
3. I am not really interested in becoming a full professor (REVERSED)