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Shaping a career in management: the importance of gendered expectations

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ABSTRACT

The study focuses on students in professional bachelor programs, how men and women navigate career opportunities after graduation. The research is based on longitudinal data from 969 Norwegian students. A crucial finding is that when men and women have equal expectations of entering a management position, they also attain such positions equally often. The results also reveal that women have equally high ambitions as men, but lower expectations of entering management positions. These findings indicate that *perceived barriers* reduce women's choices and make them *self-select* away from manager positions. The study shows the necessity of a divide between ambitions and expectations and that gendered expectations are formed before graduation. Opposite to what earlier theory suggests, women have not tuned down their ambitions to match their expectations through an irrational and unconscious process. Instead, ambitions stay high and women appear to search rationally for alternative outlets, such as more often expecting master's degrees.

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Introduction

Women are underrepresented in management positions around the globe, and Norway is no exception, with 38% of all managers being women (ILO 2019: 35). The aim of the study is to illuminate the importance of supply-side mechanisms for the gender differences in management positions. The study focuses on students in their final year of professional bachelor programs and looks at how men and women navigate opportunities for management positions in the transition from education to work.

Gender differences in management positions have inspired much research. In explaining such differences, the literature frequently points to gender discrimination (Heilman and Eagly 2008; Kulik and Rae 2019), women's preferences (Hakim 2002; Deschacht, DePauw, and Baert 2015) and family obligations (Halrynjo and Lyng 2010; Colbjørnsen and Knudsen 2018). Consequently, both demand- and supply side explanations have been examined and discussed in previous research. Still, we lack knowledge on how supply-side factors affect this process, and *self-selection* are in particular poorly understood.

Self-selection or self-elimination occurs because gendered structures in work life reduces women's choices (Correll 2001; Ridgeway and Correll 2004). These gendered structures might themselves be a result of gender discrimination by employers, but they nonetheless contribute to women's self-selection. Self-selection away from a management position may happen either prior to or after labour market entry. In order to identify such mechanisms in both stages, the focal point in

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the present study is students' career expectations in their final study-semester. Firstly, we investigate how supply side mechanisms affect male and female career expectations while they still are students. Secondly, we investigate the actual attainment of management positions among men and women with equal career expectations. Three years after graduation, the management positions in question are often at the lowest level and often with responsibility for carrying out daily tasks.

In exploring the gendered process of shaping careers, it is important to investigate variations in the ways gender might constrain or enable an individual's career expectations and career decisions. Gender is a socially constructed category which permeates our cognitive and social structures. The cognitive structures are gendered social structures which are internalised and together they make a rather stable system of masculine dominance (Bourdieu 2000, 14–17). In this context, we will look at how student's ambitions develop into expectations and attainment of management positions. In the present study, ambitions are envisioned as dreams and desires for a future career, while career expectations are pursuits that have undergone a 'reality check' and are deemed possible (Johnson 1995). This reality check will also include an assessment of how likely it is that a person belonging to a certain social group will be able to acquire a certain position. To study desires and expectations separately and examine how they collide and merge is important for identifying self-selection processes. According to Bourdieu (1984, 471), self-selection happens through an *unconscious and irrational* process, where individuals do not pursue the goals they really want (ambitions), but rather set goals they consider attainable. Even if the goals later become attainable, they are no longer desired (Bourdieu 1984, 374). The present study adds to theory by suggesting that a more conscious and rational phase can occur before the process Bourdieu describes might happen. In this early phase, in spite for noticed constraints, ambitions stay high and alternative outlets for them are sought.

The bachelor programs in this study are to a large extent gender segregated. Most of the programs are female-dominated (nursing, physiotherapy, pre-school teacher, elementary school teacher and social work) and the rest is male-dominated (engineering, data technology, media). In the professions themselves we find a similar segregation pattern and it is possible that this influence women's management expectations.

The study focuses on students in the transition from education to work. Early career is identified as an important phase. Previous research points out that gender differences in wages and positions of authority are largely created in the initial job phase. This pertains both to the private and public sector and is mainly a white-collar phenomenon (Bihagen and Ohls 2006; Zeng 2011; Albrecht, Skogman, and Vroman 2015). Later, family concerns create more inequality in the career (Halrynjo and Therese Lyng 2010; Colbjørnsen and Knudsen 2018). The present study includes 2800 final-year students and follows 969 of them three years after graduation from professional bachelor programs, mainly heavily female dominated and public sector-oriented educations, at seven universities / university colleges in Norway. A longitudinal survey design was utilised where the first round of data collection was carried out during students' final study-semester (2007) and the second wave was three years after graduation (2010).

The Norwegian context

As a welfare state, Norway has a comprehensive system for children's daycare, both well organised and at a reasonable cost. Women have high employment rates, both compared to Norwegian men and women in other western countries (Index Mundi 2019). Still, the labour market is highly segregated with more men working in the private sector and more women in the public sector (Reisel and Teigen 2014). Only seven per cent of CEOs in the largest companies are women (SSB 2019). On the other hand, women now are a majority in elite educations such as medicine, law and business administration, and in higher education institutions (SSB (Statistic Norway) 2017, 2018). However, education disciplines such as information technology and engineering are strongly male

dominated. In 2008, Norway was the first country in the world to introduce a quota law demanding 40% women on all public limited company boards.

Supply side explanations; ambitions and perceived barriers

The paucity of women in management positions has been explained in numerous ways. We broadly distinguish between explanations that consider the scarcity of female managers to be a result of differential treatment in the workplace or a result of women themselves or their conditions outside the workplace. This distinction reflects two types of explanation; demand – and supply side explanations (Reskin 1993).

In this article we address the importance of the supply side for how men and women shape different careers in the transition from education to work. Previous research frequently points towards women's family situations, career ambitions and self-assertiveness to explain women's lower share of management positions. As having children affect men and women equally in this study, the literature on the topic will not be reviewed in this section, but we will comment on this finding in the discussion section. Instead, we will include an explanation given less attention, namely the effect of anticipation of gender discrimination.

Career ambitions

In opposition to structural explanations of gender differences in careers (Kanter 1977; Crompton and Lyonette 2005), Hakim (2002) argues that long-term attitudes and values due to biology or socialisation are important for women's job outcomes. Studies have also found that men and women have different work values. Deschacht, DePauw, and Baert (2015) and Lechner et al. (2017) find that women place lower value on becoming managers than men. Both studies find that different work values can explain much of the gender difference in desires for management positions. Men place higher weight on extrinsic values and lower weight on job security than women. Much of the gender difference in desires for management positions are mediated through these variables. However, it is also possible that these differences in values are a result of structural gender differences in organisations (Crompton and Lyonette 2005) and perceived opportunities.

Several Norwegian studies show that men and women have equally strong ambitions and are equally interested in becoming managers (Storvik and Schöne 2008; Halrynjo and Therese Lyng 2010; Fekjær and Halrynjo 2020). However, gender difference in the *attainment* of positions persists (Halrynjo and Therese Lyng 2010, Fekjær and Halrynjo 20,210).

To explore how ambitions affect career attainment, a distinction between ambitions and career expectations might be useful. Such a distinction can help to understand the process of individual career decisions and the perceived barriers that influence the process. A relatively low career expectation in combination with high ambitions might indicate that students have already started self-selecting away from the positions they really want.

Self-assertiveness

Lack of self-assertiveness has also been a commonly proposed explanation of women's relative low share of management positions. When women evaluate their capabilities in what are conventionally understood as male tasks, they tend to underrate themselves (Ridgeway and Correll 2004; Huang 2013). An example is that women students rate their abilities in mathematics lower than men, even when tests show gender-equal results. The reasons for this finding are cultural beliefs about gender and competence (Correll 2001). A cultural belief is a commonly shared view and even if someone disagree, they can fear sanctions if not obeying the view. The cultural beliefs about gender and competence reflect the gendered structures of work, where men and women are segregated into different occupations and positions of authority. The segregation confirms the

cultural beliefs, which again make men and women self-select into different occupations and positions (Ridgeway and Correll 2004). However, a common criticism has been that from this perspective it is difficult to explain why change happens, such that women now are the majority in educations such as medicine and law.

Anticipations of gender discrimination

In addition to the factors listed above, we propose a third variant of the supply side explanation: anticipation of gender discrimination. Even if recognition of gender discrimination is crucial to fight the phenomena, it can also constrain women's choices and make them self-select from management-positions (Deschacht, DePauw, and Baert 2015). This can be because they expect that it will be harder for them to obtain such positions or because they expect to be judged harder if they fail (Fisk and Overton 2019). Anticipations of gender discrimination is a *perceived structure* limiting women's choices of certain careers. It can influence women's goals and behaviour in some work contexts (Flanagan 2015), with the results that women more seldom apply for management positions or do not behave as informal leaders. As De Rue and Ashford (2010) describe, people who want to appear as leaders have to make an extra effort showing initiative and taking responsibility. On the other hand, it can also make people work harder to overcome the perceived barriers (Goldsmith et al. 2004) and motivate fight against discrimination (Ridgeway and Correll 2004). How gender segregated the profession and the typical work context are, might influence the expectations formed.

Research concepts and research questions

Three concepts are particularly relevant to this article: Career ambitions, career expectations and career attainment. *Career ambitions* refers to dreams and desires, what a person really wants, initially. *Career expectations* is a career pursuit that an individual considers realistic and accessible (Johson 1995). This reality check makes career expectations different from ambitions, which reflect dreams or desires often formed in earlier years.

In the present study, *career attainment* refers to the attainment of a management position. The analysis is based on a series of questions posed three years after graduation, surrounding the presence of management responsibility in a present job. At this early career stage, the management positions attained are not top positions, but often first-step positions such as team managers or supervisors of workers with less education.

We formulated three research questions:

- (1) Does gender affect students' expectations of achieving management positions in future career?
- (2) Does gender affect students' attainment of management positions?
- (3) When women and men have equal expectations of entering management positions (controlled for ambitions and academic self-assertiveness), are there also equal outcomes in attainment of management positions?

The results of the first question show whether and how women and men diverge in their management expectations. We examine the effects of the students' career ambitions, family obligations and academic self-assertiveness (expectations of master's degree). The second question show how women and men diverge in career attainment three years later. Various common explanations of gender differences in the attainment of management positions are included in the analyses: career ambitions, family obligations and academic self-assertiveness. Finally, we control for management expectations in the analysis of attainment. The results of the third question show whether the gender differences in attaining management positions also apply to women and men with equal career expectations.

In the present study we ask about students' expectations of entering management positions. We argue it is likely that gender differences in expectations of attaining management positions to a large extent reflect anticipated gender discrimination and/or lack of self-assertiveness about management-skills, when controlling for individuals' ambitions, family situations and academic self-assertiveness (in addition to bachelor program and age).

Data, variables and methods

The analyses are based on StudData, a Norwegian database containing the results of a longitudinal panel survey. This survey comprises students from approximately 20 professional bachelor programs at seven universities and university colleges in Norway, almost 3000 students. Most of the respondents were pursuing study programs qualifying for female dominated professions (86%), whilst 14% were pursuing male dominated professions.

The respondents graduated in the spring of 2007. The data used in this article are based on two waves of questionnaires; wave one was carried out a few months before graduation (spring 2007); wave two was carried out three years later, in the spring of 2010. The response rates were 67% and 38% respectively. The data comprises 2797 final-year students: 2045 women and 752 men. Three years after graduation (year 2010), 969 of these students responded, 751 women and 218 men. Only 35% of the respondents from the first wave also answered the second questionnaire.

Significantly lower response rates in the follow up survey (wave 2) may have had an impact on the results. However, equal compositions of the respondents in wave 1 and wave 2 limit any impact. The analyses of the central characteristics of the respondents (gender, age and study program) reveal an approximately equal composition of respondents in the two waves (Table 1). For example, Table 1

Table 1. Descriptive results. Final-year students in professional bachelor programs and the same respondents three years after graduation. Datasource: StudData, Panel 3, wave 1 (N = 2797) and wave 2 (N = 969) a).

Final study-semester	Women	Men	All
Career ambitions, mean (SD), scale 1–5:	3.57 (0.67)	3.63 (0.72)	3.59 (0.69)
Expectations of achieving a management position, mean (SD), scale 1–5.	3.30 (1.11)*	3.65 (0.99)	3.39 (1.09)
Expectations of achieving a master's degree, mean (SD), scale 1–5.	2.81 (1.27)*	2.67 (1.39)	2.77 (1.30)
Children, %	18%	16%	17%
Gender %	73	27	100
Age, % *			
23 or less	34	20	30
24–27	45	53	47
28 or more	21	27	23
Sum	100	100	100
<i>Bachelor programme, % *</i>			
Female dominated	94%	63%	86%
Male dominated	6%	37%	14%
Sum	100%	100%	100%
N	(2045)	(752)	(2797)
Three years after graduation a)			
Achieved a management position, %	34%*	39%	35%
Children, %	29%	29%	29%
Gender, %	77	23	100
Age, % *			
26 or less	33	18	29
27–30	46	55	48
31 or more	21	27	23
Sum	100	100	100
<i>Bachelor profession, % *</i>			
Female dominated	93%*	68%	87%
Male dominated	7%*	32%	13%
Sum	100%	100%	100%
N	(751)	(218)	(969)

Notes: a) Students /graduates who respond both 2007-survey and 2010 – survey, * Significant difference ($p < .05$) between men and women.

shows that 73% of respondents were women in the first survey and 77% in the second. The gender composition in the study-programs in the initial survey appears to be relatively equal to the gender composition of the professions in the second. This is important because students in the two categories of study programs meet different career opportunities after graduation from a bachelor's degree. Graduates in female dominated professions have better opportunities to achieve a management position in early stages of their careers when compared to graduates in male dominated professions (Abrahamsen and Storvik 2016). Also, employers' preferences for recruiting men in their hiring processes for management positions may also vary between the two categories of professions.

A limitation of the study is that the population comprises students from only seven out of approximately forty universities and university colleges. It is therefore not possible to generalise the findings to the whole population of students in Norwegian professional bachelor programs. This is due to differences in local labour market opportunities. Attainment of management positions as well as anticipated gender discrimination may also vary across geographical areas. We will argue, however, that the geographical distribution of the universities and university colleges in the present study is similar to the distribution of all universities and university colleges in Norway. In the present study, four out of seven universities and university colleges are located within the four largest cities in Norway. The opportunity to get relevant jobs for bachelor students who graduated in 2007 is good throughout the country. Two years after graduation just over 1% were unemployed (Arnesen 2012).

Dependent variables

The variable *management expectations* is based on the students' responses to the following question posed during the final semester of their education program: Imagine your life situation 10 years in the future. How likely is the following statement to be true? 'I have achieved a management and/or leadership position'. Responses were rated on a 5-point scale (1 = very likely, 5 = not likely at all). The scale was inverted.

The variable *achieved management position*¹ is based on following question, posed three years after graduation: Do you have management and/or leadership responsibility in your job? Responses were 'no' or 'yes'. The variable was coded 0 for respondents who answered no, and 1 for those who had attained a management/leadership position.

Independent variables

Bachelor programs were coded as a dichotomous variable; female dominated bachelor programs (coded 0) and male dominated bachelor programs (coded 1). Female dominated programs included nursing, physiotherapy, pre-school teacher, elementary school teacher and social work. Male dominated programs included engineering, data technology and media.

For the variable of *career ambitions*, two job values were added together. The students answered the following statements: 1) How important are opportunities for career advancement when seeking a job? 2) How important is high income when seeking a job? Responses were rated on a 5-point scale (1 = not important at all, 5 = very important). The variable of career ambitions is both a dependent and an independent variable in the analyses.

The variable *expectations of a master's degree* is based on the students' responses to a question posed during the final semester of their education program: Imagine your life situation 10 years in the future. How likely is the following statement to be true? I have completed a master's degree. Responses were rated on a 5-point scale (1 = very likely, 5 = not likely at all). The scale was inverted.

Gender was coded 0 for men and 1 for women. The presence of *children* was coded 0 for respondents without children and 1 for those who had children. *Age* was coded as follows: 0 for respondents up to 24 years old in 2007 (up to 27 in 2010), 1 for 24–27 years old in 2007 (27–30 in 2010), and 2 for respondents aged 28 or over in 2007 (31 or older in 2010).

Statistical methods

In addition to estimating means and percentages (Table 1), we used ordinary least squares (OLS) linear regression analyses on expectations of a management position (Table 2) and logistic regression analyses on achieved management positions (Table 3). Three models were investigated; one model for expectations of a management position (Table 2), and two models for achieved management positions (Table 3, Model 1 and 2). In addition, a second linear regression analysis of students' expectations of management positions was carried out (not shown). The analysis examines whether the weak response rate in wave 2 impacts the results in Table 2.

Table 2. Expectations of achieving a management position in final study-semester among students in professional bachelor programmes. Linear regression analyses. Unstandardised coefficients (standard error). Datasource: StudData, wave 1 (2007).

	Model 1
<i>Gender,</i>	-0.39
<i>Ref: Men</i>	(0.05)**
<i>Age, scale 0–2</i>	0.06*
	(0.03)
<i>Have children,</i>	0.16
<i>ref: No children</i>	(0.06)*
<i>Bachelor programme</i>	-0.15
<i>Ref: Female dominated</i>	(0.06)*
<i>Career ambitions,</i>	0.35
<i>scale 1–5</i>	(0.03)**
<i>Expectations of master's degree,</i>	0.15
<i>scale 1–5</i>	(0.01)**
<i>Constant</i>	1.86
	(0.13)**
<i>Adjusted R Square</i>	0.124
<i>N</i>	2543

Note: *p < .05, **p < .01.

Table 3. Achievements of management positions three years after graduation of professional bachelor programmes. Logistic regression analyses. (Standard Error). Datasource: StudData, wave 1 (2007) and wave 2 (2010).

	Model 1	Model 2
<i>Gender,</i>	-0.43	-0.30
<i>Ref: Men</i>	(0.18)*	(0.18)
<i>Age,</i>	-0.11	-0.13
<i>ref: scale 0–2</i>	(0.10)	(0.10)
<i>Have children 3 years after graduation,</i>	0.41	0.28
<i>ref: No children</i>	(0.16)*	(0.16)
<i>Bachelor programme</i>	-0.70	-0.69
<i>Ref: Female dominated</i>	(0.25)*	(0.25)*
<i>Career ambitions,</i>	0.26	0.11
<i>scale 1–5</i>	(0.10)*	(0.11)
<i>Expectations of master's degree,</i>	0.09	0.03
<i>scale 1–5</i>	(0.05)	(0.05)
<i>Expectations of management positions,</i>		0.41
<i>scale 1–5</i>		(0.07)**
<i>Constant</i>	-1.24	-2.04
	(0.46)*	(0.49)**
<i>Nagelkerke</i>	0.044	0.089
<i>R Square</i>		
<i>-2 Log likelihood</i>	1139.51	1108.22
<i>N</i>	894	894

Note: *p < .05, **p < .01.

Results

Descriptive statistics

Table 1 provides the descriptive results for men and women at two points of time; the final study semester of the bachelor program and three years after graduation. The results of the final study semester show mean and standards deviations for students' career ambitions and expectations of career achievements 10 years in the future; expectations of attaining a management position (ExpectPosition) and a master's degree (ExpectMaster). Means and standard deviations are also estimated for achieved management positions (AchievPosition) for the same individuals three years after graduation. The results reveal equal levels of career ambitions among men and women (3.63 vs 3.57). Further, female students reported significantly lower compared to male students on expectations of management positions (ExpectPosition, respectively 3.30 and 3.65) and higher on expectations of master's degrees (ExpectMaster, respectively 2.81 and 2.67). When it comes to achieved management position (AchievPosition) three years after graduation, a significantly higher proportion of men reported having management positions compared to women (respectively 39 and 34%). Additional analyses (shown upon request) show that gender equality in ambitions and gender inequality in expectations applies to both female-dominated and gender-balanced bachelor programs.

The gender differences in career expectations seem slightly higher among students in male dominated programs/professions than in female dominated. However, the gender differences in career expectations do not vary systematically according to the share of male in the female dominated professions. The gender differences in career expectations appear to be highest among students in social work (35% men in the profession) and among nursing students (10% men). The lowest gender difference is found among elementary teacher students (25% male in the profession).²

Table 1 also shows that men and women pursued different types of study programs. In the present study, 94% of women and 63% of men pursued a female dominated program. Just 6% of the women and 37% of the men attended a male dominated program. Most students, both men and women, were aged between 24 and 27 in final study semester (men 53% and women 45%). However, a significantly higher proportion of the women (34%) were aged 24 or younger, compared to the men (20%). The proportion of students who had children in final study semester were nearly equal for men and women (16% and 18% respectively). Three years later, the proportion of students with children had increased for both genders, with 29% of both men and women having had children.

Regression analyses

Table 2 shows the results of linear regression (OLS) on students' expectations of achieving a management position (Model 1). Students' expectations are measured on a scale from 1–5 (1 = very low, 5 = very high). **Table 3** shows the results of a logistic regression analyses on students' achievements of management position (dichotomous variable) three years after graduation. The analyses include several independent variables: gender, age, children, professional bachelor program, career ambition and expectations of attaining a master's degree.

The results in **Table 2** reveal that women have significantly weaker expectations of management positions (ExpectPosition) compared to men (−0.39). As expected, students' career ambitions relate significantly to their career expectations. High ambitions strongly increase students' expectations of achieving a management position (0.35). Further, high expectations of a master's degree (ExpectMaster) increase students' expectations of attaining a management position in the future (0.15). **Table 2** shows a significant positive effect of students' age (0.06) and having children (0.16). The effect of study-program on students' career expectations was significant for students' expectations of a management position (ExpectPosition) (−0.15), which indicates that students in female dominated bachelor program expected to a higher degree to attain a management position,

compared to students in male dominated bachelor program. Additional analyses (not shown) reveal no interaction effects between gender and type of study program, or between gender and children, which indicates that having children and attending a specific type of study program mean similar things for men's and women's expectations of attaining a management position.

Further, a second analysis of the students' expectations of a management position has been carried out. The analysis comprises students who have responded to both surveys (wave 1 and wave 2). The results (available on request) are similar to the results shown in Table 2. This means that the relatively weak response rate in wave 2 does not influence the results significantly.

Z

Table 3 shows the results of the logistic regression on the same students' achievement of a management position (AchievePosition), three years after graduation (Model 1 and 2). The results in Model 1 reveal that men have a stronger tendency to attain management positions compared to women (-0.43). However, by including expectations of management positions (ExpectPosition) as an independent variable (Model 2), a dramatic change appears. The effect of gender is not significant (but is still negative). This result shows that expectations of management positions (ExpectPosition) relates positively to students' career achievements (0.41). A positive and significant relationship between an individual's ambitions and career achievements appears in Model 1 (0.6), but this significance is diminished when expectations of management positions (ExpectPosition) is included in the analyses.

The students' ages and expectations of a master's degree (ExpectMaster) do not relate significantly to achieved management position (AchievePosition) (in either Model 1 or Model 2). The results in Table 3 also show a strong significant effect related to the type of professional bachelor program. The probability of attaining a management position after graduation is higher in female dominated professions than in male dominated ones (-0.70 in Model 1 and -0.69 in Model 2).

Having children has a strong positive effect in Model 1 (0.41), but it does not appear to be significant after controlling for expectation of management position (ExpectPosition) in Model 2. However, the results indicate no direct effect of age on the achievement of management positions. Additional analyses (not shown) reveal no significant interaction effects between gender and having children, between gender and bachelor program or between gender and expectation of a master's degree (ExpectMaster Model 1 and 2). This means that the effects of having children, the type of study program and expecting a master's degree (ExpectMaster), do not appear significantly different for men and women.

Additional analysis has also been conducted to investigate whether the gender difference in attainment of management positions (Table 3, Model 1) can be linked to women's higher expectation to pursue a master's degree. However, the analysis shows no significant relationship.

Discussion

The study sheds light on *one* process that can contribute to a gender gap in management positions, in addition to explanations such as women's more extensive family responsibilities and gender discrimination at work. Students' career *expectations* prior to labour market entry are identified as crucial to understand the gender differences in attainment of management positions. Women have lower expectations of management positions than men and in addition attain fewer management positions. However, when men and women have equal expectations of management positions, they attain such positions equally often. This finding suggests that expectations influence action, and through this process outcomes, an insight in accordance with the theoretical and empirical work of Correll (2001).

The present study confirms that female and male students have equally high ambitions based on their valuation of earning and advancement. One reason for this finding could be that men in this study are less interested in such things than men generally, given that many of them have chosen female-dominated professions, often employed in the public sector. However, earlier Norwegian

research on gender balanced professions mainly employed in the private sector does neither find such a gender difference (Halrynjo and Therese Lyng 2010; Halrynjo and Fekjær 2020). Research from other countries, on the other hand, does find a gender difference (Konrad et al. 2000; Lechner et al. 2017; Nielsen and Madsen 2019). In the present study lack of ambition was therefore excluded as an explanation for the gender gap in career expectations.

Cassirer and Reskin (2000) argue that gender differences in career prospects disappear when men and women find themselves in the same positions at work. The students in the present study find themselves in similar educational circumstances but in each profession, women have lower expectations of entering management positions than men. What the gender segregation of the profession means for women's management expectations is not evident. Engineering is heavily male dominated and the gap between men's and women's management expectations are most profound here. Nursing, on the other hand is an extremely female dominated profession, but still women have lower management expectations than men. In fact, if we look at teaching with more men in the profession than nurses, the gender gap in management expectations are smaller but still existing. This pattern indicates that the gender composition of the profession has some influence on management expectations as one could expect from Kanter's theory (1977) about group proportion, but that also other factors contribute. While teachers often are the only profession at their workplace, nurses often work with physicians who are placed higher in the professional hierarchy (Abbott 1988). It is likely that hierarchies connected to both gender and professions can intersect and shape management expectations.

Often, earlier studies have not drawn a clear divide between ambitions and expectation, instead using the term *preferences*, meaning one or the other of these phenomena. Economic theory defines preferences as 'exogenous' and considers preferences as dreams and desires (Goldsmith et al. 2004; Hakim 2002). This is what we in the present study term ambitions. On the other hand, sociologists like Bourdieu (1984, 2000) and Correll (2001) state that preferences are pursuits that are deemed possible, what we here call expectations. Bourdieu and Correll argue that social structures in the form of perceived constraints work on desires and mould them into realistic preferences. This is supposed to happen through an unconscious and irrational mechanism. O' Brien et al. (2000) find that from high school age to early adulthood women's career plans develop into less prestigious choices.

A theoretical contribution comes from the finding that ambitions and expectations do not always mould together as Bourdieu (1984, 2000) and Correll (2001) argue. Instead, the present study indicates a more *rational* and *conscious* process where ambitions stay high, even in a period likely to be characterised by high tension. Perceived structures act as barriers and reduce options, but women consider alternative choices that appear available (a master's degree). If solutions are not found, it is possible that the irrational and unconscious process described by Bourdieu and Correll sets in after a while.

The lack of correspondence between career expectations and ambitions for female students can indicate a sort of *self-selection process*. This process could have started before they became bachelor students but is likely to intensify as they grow older. Different reasons could make women self-select from management positions. Firstly, Savela and O'Brien (2016) argues that expected conflicts between family and work can make college girls self-select away from careers that are seen as difficult to combine with having children. Halrynjo and Lyng (2010) find similar career preferences between mothers and fathers in the same professions in Norway but find different career outcomes. One should expect that it is among students with children we find the greatest difference in management expectations as they already have experienced the unequal burden often placed on men and women. However, our analyses indicate similar effects, contrary to earlier studies (Gangl and Ziefle 2009; Halrynjo and Therese Lyng 2010). Students who were parents exhibited higher expectations of becoming a manager and were also more likely to achieve these positions than students who did not have children. One reason for this unusual finding might be that the students were in the initial stages of family life, often with only one child. Another might be that the majority of the students foresaw a career in the public sector where working hours are low, also for managers. Indeed, for the welfare professions, such as nurses, becoming a manager also often implies

more regular work hours. The structuring of lower management positions in these occupations does not implicitly exclude persons with main responsibility for children, as Acker (2009) argues often is the case.

Expected gender discrimination is a perceived structure constraining free choice and can be another explanation for women's self-selection away from a career as a manager (Deschacht, DePauw, and Baert 2015; Fisk and Overton 2019). Individuals are likely to develop perceptions about the labour market and how fair hiring processes will be (Pager and Pedulla 2015). The powerful 'glass ceiling' metaphor often appears in the media and refers to gender discrimination in hiring to higher positions (Kulik and Rae 2019). The year after the present survey was carried out (2008), a quota law which demands 40% women on company boards was introduced. In the discussion prior to this law, gender discrimination was a commonly stated reason in newspapers for the introduction of the law (Teigen 2000). This should be considered as forming a backdrop for women's lower management expectations at the time, as there was no quota proposed for management positions.

Correll (2001) finds that women have lower levels of self-assertiveness in male dominated disciplines and that this makes them self-select from such education programs. In the present study, students' expectations of a master's degree are viewed as a proxy for academic self-assertiveness, but these results do not indicate a stronger academic self-assertiveness among men than women. Consequently, the results do not support self-selection caused by women's lack of academic self-assertiveness. In fact, women in male-dominated educations were more likely to expect a master-degree than men in such educations. This tendency could be triggered by a need for fighting what Ridgeway and Correll (2004) names cultural beliefs about men's supreme competence in these disciplines.

Another version of this explanation should also be considered. Women might be less self-assertive about their personal suitability as managers and therefore self-select away from management positions. A large meta-study (Koenig et al. 2011) still finds a masculine management ethos, although Storvik (2012) does not in Norway. Paustian-Underdahl, Walker and Woehr (2014) show in a meta-study that women rate their own leadership-effectiveness lower than men do. Hence, the symbolic construction of management might constrain women's choices and make them deem themselves more often unsuited for such positions.

The national context is likely to be of importance for the findings in this study. That men and women have equal ambitions and that children have the same effect for both groups are likely to be a result of strong gender equality values and a welfare system that makes it possible to combine family and work. Further, in countries that value gender equality highly (such as Norway), people tend to perceive more discrimination against women (Cameron 2002). To detect gender discrimination is a very important step to fight it, but it might also have another negative effect. Anticipated gender discrimination might generate more self-selection in countries valuing gender equality highly, than in other countries where actual discrimination is more profound.

Gender is of course not the only factor affecting students' career expectations and prospective career outcomes. Ethnicity and class background also form part of the broader picture (Wiborg 2006; Mastekaasa 2011; Abrahamsen and Drange 2015). Ethnicity and class background appear to have different meanings for women and men and affect the gender gap in careers differently (Karlsen 2012; Orupabo 2018). Thus, the gender differences in career expectations and attainment of management positions may be more complex than what is stated in this article.

Conclusion

This article sheds light on the importance of supply-side mechanisms in explaining gender differences in early career progression to management positions. The longitudinal study of Norwegian students in professional bachelor programs follows students from their final study-semester until three years after graduation. Women have equal ambitions to men, but lower career expectations. Lower self-assertiveness about one's own management skills or anticipations of gender discrimination in the labour market are both probable causes, which are likely to restrain women's choices and

make them self-select away from management positions. When women and men have equal management expectations, they also attain management positions equally often.

The study demonstrates the necessity of dividing between career ambitions (desires) and career expectations and that gendered expectations are formed before graduation. Opposite to proposed by earlier theory, the study shows that ambitions and expectations are not unconsciously moulded together in an irrational process, although this could happen at a later stage. Instead, alternatives that appear available are sought and chosen; women are unproportionally to men pursuing a master's degree. Rational choices are performed, but within limits of perceived structures restraining what appears possible.

It is likely that both self-selection and discrimination occur and to some part explain women's lower representation in management. Self-selection is sometimes considered as a blame-the-victim explanation. However, self-selection based on gender is much more than women's individual problems. Self-selection occurs because established gendered structures at work (such as repeated cases of discrimination against women, male domination in management position and a management ethos with a masculine origin) influence women's career expectations. Past and present gender discrimination has created these labour market structures and women should not take the blame for doing reality checks based on their gender. Perceived gender structures in work life constrains women's choices and can make women self-select away from management positions.

Future research should focus on the development of gendered ambitions and expectations and how they intertwine. Because part of the process starts before entering the work arena, longitudinal studies of students' development are useful. In addition, one should study how the organisational, professional and the larger societal context interact when women consider their own chances of a career in management.

Notes

1. The respondents in this study are asked if 'ledelsesansvar' is part of their job. In Norwegian, 'ansvar' means responsibility. 'Ledelse' means both management and leadership and a distinction is not made in everyday terminology. Similarly, managers and leaders are both called 'ledere' and one supposes that many 'ledere' do both leadership and management. We here use the term management positions also to cover positions that might have been termed leadership positions in English. The idea that there exists informal leaders without a formal title as 'leder' is not common perception, but could exist between scholars of business and administration. However, none of respondents are such scholars. Therefore, when respondents are asked if 'ledelsesansvar' is part of their job, it is unlikely that men or women without such a formal title would answer yes to this question.
2. The group preschool-teachers have a very low share of men, and we have therefore excluded the group from the analysis.

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