At the Top of the Pyramid, Everyone is Above Average: Self-efficacy and perceived performance of academics in the Nordic countries

Laila Nordstrand Berg[*], Aleksandar Avramović[**], Lars Geschwind[***], Elias Pekkola[****] and Rómulo Pinheiro[*****]

Abstract. Managerialism in higher education has gained prominence in recent decades. One of the crucial elements of this approach is the steering of the higher education sector, including the introduction of multiple forms of evaluation of academic work. Little is known about how academics evaluate themselves in comparison to their colleagues. Therefore, the focus of this paper is on how academics evaluate their own performance in teaching and research. The article uses survey data (2014–2015) from Norway, Finland and Sweden. Professors' and associate professors' answers were considered. Our research relies on social-cognitive theory to develop a set of hypothesis. The empirical findings show that academics are likely to perceive their own and their unit's research performance as higher when compared to that of their peers and similar units. Associate professors consider themselves to be more performative in teaching, whilst professors highlight their research performance. Finally, the gender differences were found to be minimal.

Keywords: academics, Nordic universities, self-assessment, self-efficacy, self-evaluation, teaching and research performance

[*] Associate Professor in Administration and Organization Theory, Department of Social Sciences, Western Norway University of Applied Sciences, Norway, e-mail: laila.nordstrand.berg@hvl.no
[**] Research Fellow, Department of Political Science & Management, University of Agder, Norway, e-mail: aleksandar.avramovic@uia.no
[***] Professor in Engineering Education Policy and Management, Head of Unit Learning in STEM, KTH Royal Institute of Technology, Sweden, e-mail: larsges@kth.se
[****] Acting Professor and Head of Unit of Administrative Sciences, Faculty of Management and Business, Tampere University, Finland, e-mail: elias.pekkola@tuni.fi
[*****] Professor of Public Policy and Administration, Department of Political Science & Management, University of Agder, Norway, e-mail: romulo.m.pinheiro@uia.no

Introduction

The higher education (HE) sector, in the Nordics and beyond, has been transformed through managerial reforms in recent decades. Part of this change has been an increase in the types and amount of data collected and used as a steering tool within the sector. Such data can serve as a basis for performance evaluation and control and also as a basis for comparisons across institutions and for individual competition in academic labour markets. Furthermore, HE institutions (HEIs) are also gathering information regarding the activities and performance of academics, and this value-for-money approach has led to the rise of an evaluation regime that largely depends on the involvement of the academics themselves (Kyvik, 2012). For example, academics (and HEIs) are evaluated through measurements related to teaching (e.g. student evaluations, throughput of students, grades) and research (e.g. publications, citations, paper presentations at conferences, international networks). This produces a large amount of information for assessment and evaluations, both individually and organisationally.

There is a need to study the self-assessment and self-esteem of academics, as there is little knowledge on how these dimensions affect the life of academics (Söderlind, 2020). Such self-evaluations are important for academics' belief in their ability to keep up with stringent internal and external performance demands (Bandura, 1997). The lens of self-efficacy reflects how a person views her or his ability to cope with a variety of situations (Schwartzer, Bässler, Kwiatek, Schröder, & Zhang, 1997), and it can be useful in the analysis of academic work, such as teaching and research. Likewise, academics' judgement of their past performance also influences their future efforts (Weiner, 1988, 2010). Still, how this influences performance attainment depends on the way in which key factors are weighted and interpreted by the actors involved (Bandura, 1982), that is, those being measured (academics) and those performing or assessing these measurements (peers and managers).

The growing influence of globalisation and increased transnational interdependence can influence social and economic life for both individuals and organisations (Bandura, 1997). The ethos of the academic profession has been affected by the developments in evaluation, and this has, in many instances, resulted in a shift from a 'collegial' to a 'competitive' ethos (Kallio, Kallio, Tienari, & Hyvönen, 2016).

This study takes place in the Nordic countries, which share cultural features in the form of individualism and egalitarianism (Hofstede, 2001), but also moderation and humility derived from the so-called 'Law of Jante' (Kaminsky, 2007; Scott, 2016). This cultural law claims, inter alia, that you are not better than others, and that one should not brag about one's achievements. Questions can be asked regarding whether this informal and implicit 'law' is still relevant in this era of globalisation and meritocracy, and to what extent it manifests in the context of a changing academic environment.

Working from a background assumption that self-assessments are of theoretical value, a state-of-the-art review (Ward, Gruppen, & Regehr, 2002) claimed that the accuracy of self-assessment was

poor. We follow up on this, and the focus in this study is on how academics view themselves and evaluate their own performance regarding teaching and research at a time when metrics and evaluations are both more salient and widely available for individuals and groups. Against this backdrop of increased tools for performing assessments at various levels and a shift toward a more competitive academic ethos, we pose the following research questions:

1. *How do Nordic academics assess their own performance in teaching and research when compared to their peers?*
2. *What does that assessment tell us about the changing culture of the academic profession in the Nordic countries and beyond?*

To obtain a broader understanding of these questions, we follow the work of Bleidorn et al. (2016), who criticise the narrow focus in studies on self-esteem. Accordingly, the authors include socio-cultural aspects, such as gender, age, societal norms, political systems and history. We follow this line and cross-check self-assessment in teaching and research against similar independent variables. In addition, key aspects of motivation and how they affect the relationship between academics and managers are also included.

We explore how academics in the Nordic countries evaluate themselves. To do this, we analyse survey data collected in the period from 2014 to 2015 in a comparative study including senior academics (academic leaders, associate professors and professors) from all Finnish, Norwegian and Swedish public universities. Private universities and other non-university HE providers were not considered. Despite their similarities and differences, we argue that the Nordic countries provide important lessons for other HE systems facing similar change dynamics resulting from the interplay between various endogenous and exogenous factors, including the co-existence of a deeply rooted culture of egalitarianism and an emerging logic of excellence or competition (cf. Geschwind & Pinheiro, 2017). The paper uses a deductive approach and social cognitive theory for hypothesis development. As part of social-cognitive theory, it pays special attention to the relationship between the concepts of seniority and gender on one hand and self-esteem on the other. The paper then continues with detailed accounts of the method, empirical theory testing and analysis and then presents a discussion and conclusions, including implications drawn from the study.

Nordic higher education: Key features

Nordic HE systems have traditionally been characterised by the presence of two distinct types of providers: universities and non-universities. The former tend to be more comprehensive in nature (both breadth and depth of subjects), research intensive and to cater to the needs of the national and international labour and science markets. In contrast, the latter are more regionally embedded (student

and labour markets), tend to focus on research of a more applied character and focus more on vocational educational offerings (professions). In the last decade or so, there has been a process of (academic/vocational) drift or convergence across the region, with non-university providers either merging with established (and older) universities and/or adopting the types of programmes traditionally offered by their HEIs counterparts (either sub-system) in response to shifts in the local/national and global labour markets as well as student demand. This, in turn, has led to a restructuring of the domestic landscape with fewer yet larger providers. From a policy perspective, the gradual erosion of the binary divide is part of a deliberate attempt by central governments across the region—Norway, Denmark and Finland (less so in Sweden)—to enact structural changes and address capacity issues as a means to foster the efficiency of the system and its global competitiveness. That said, all four systems still cater to the possibility of both types of HE providers but given the domestic and global competitive pressures facing Nordic HEIs it is merely a question of time until the transition to a unitary model, with universities as the dominant organisational form, is accomplished. Finally, regarding governance there has been a strong emphasis on fostering teaching quality, research excellence as well as aligning the HE systems with the emerging European HE and Research Areas as a result of the Bologna process. In terms of reforms, previous inquiries show that Norway and Sweden can be categorised as moderate reformers, whereas Finland and Denmark have enacted more radical structural changes, including cutting the traditional link between HEIs and the state (Finland) (for a recent analysis see Pinheiro et al., 2019). The Nordic HE systems also have some important differences in characteristics. Finland has the sharpest division between universities and universities of applied sciences, with different responsibilities and legislation. In Norway, a large number of HEIs have recently been promoted from university college to full university status, whereas on paper Sweden has a unitary system but in practice shows significant diversity, particularly in the relation between teaching and research.

Although there are many similarities between the Nordic countries' career systems and working conditions for the academic profession, there are also some key differences. This is particularly true when it comes to the variety of positions, not only across countries but also within national systems as a consequence of similar reforms increasing institutional autonomy in the area of recruitment decisions. Many universities, but not all, have applied a tenure track-inspired system, with promotion based on pre-defined criteria. This has resulted in a mix of traditions, originating from a German/Humboldtian, *Lehrstuhl* tradition (Nybom, 2003) and complemented with other career models.

All these differences have consequences for the comparisons made in this study as well as between the nominally same positions, such as professor and associate professor (career levels III and IV). National historical traits and path dependencies also contribute to idiosyncrasies and differences. Typically, an associate professor (førsteamanuensis) in Norway has more time for research secured by core basic funding than a Swedish colleague. This is because in Sweden the title associate professor (lektor) was originally created for a teaching-only post. Following changes in the career system in

Finland in 2010, the academics coherent with the label "associate professor" were mostly university lecturers and a few were university researchers. Even the top position (professor) displays a variety of features across the countries.

Conceptual backdrop and hypothesis

Self-assessment and self-efficacy

Our starting point for conceptualising the self builds on the seminal work of Bandura and social cognitive theory (Bandura, 1982, 2001). However, it also includes more recent interpretations and developments from this theoretical field. In social cognitive theory, people are perceived as pro-active agents with a variety of characteristics regarding exercising control of change and self-development. Hence, they are not perceived as reactive organisms who are passively adapting to external events. This exercise of development is not solely an individual project, as human adaption occurs in a system of socio-structural influences. Following this, humans are simultaneously active agents producing social systems and products of the same social systems (Bandura, 1997).

The actions of humans, including how individuals make choices, are derived from past experiences and evaluations as internal self-influencing factors that motivate and regulate behaviour (Simon, 1997) as well as in relation to external social systems (Honicke & Broadbent, 2015). When investigating how individuals view and evaluate themselves, it is important to clarify the meaning associated with the different terms in the extant literature. *Self-assessment* relates to the ability to consider one's qualities and qualifications. Individuals learn not only based on their own actions but also from observing the actions and results of others, especially those they consider similar, including academic peers and/or role models. Individuals possess the ability to engage in self-reflection and to measure their actions, feelings and thoughts (Bandura, 1986). This ability is important for regulating one's behaviour.

The focus of *self-efficacy* is related to one's ability to perform the task at hand. Bandura (1997) defines self-efficacy as a belief in one's ability to achieve personal goals and desired outcomes, also described as confidence or perceived capability (Pajares, 1996). Key components are the ability to set realistic goals and a belief in one's ability to reach the pursued outcomes. Self-efficacy is thus related to an individual's level of confidence regarding actions and outcomes (Lane, Lane, & Kyprianou, 2004). There are positive links between self-efficacy and performance, and individuals who perform well tend to have higher self-efficacy and motivation—and the opposite is true for low performance (Lane et al., 2004). This is also associated with a psychological need to feel competent (Eekman, Kinney, Shierl, & Henry, 2019). We assume that the increasing number of metrics available in research is influencing how people perceive their performance in research. These metrics are suitable for use in considering one's qualifications as well as in comparing oneself to peers in the field. People

know who the top performers in research are in their fields due to publication points and citations, etc. Knowledge of one's own research metrics can boost self-assessment and have a positive impact on self-efficacy. Similar metrics are not as well established for teaching, and thus who the best teachers are is not transparent. This might influence self-assessment in a negative way due to having fewer metrics with which to compare oneself. Accordingly, we pose the following hypotheses to be empirically tested:

- H1: *Academics are likely to perceive their teaching performance as lower when compared to that of colleagues within their immediate unit or department.*

- H2: *Academics are likely to perceive their unit's performance in teaching as lower when compared to other similar units elsewhere.*

Along the same lines, as different units within universities (departments, research groups, faculties, etc.) are competing among themselves for resources, students, funding and prestige, primarily in research (Musselin, 2018), being part of a successful or prestigious unit can be an important differentiating factor for academics (Kwiek, 2018). Given this, the next two hypotheses are as follows:

- H3: *Academics are likely to perceive their own research performance as higher when compared to that of their peers within their immediate unit or department.*

- H4: *Academics are likely to perceive their unit's research performance as higher when compared to other similar units elsewhere.*

Seniority and self-efficacy

Self-efficacy is one of the most studied subjects in modern social sciences, surpassing 35,000 publications (Bleidorn et al., 2016). There is a significant amount of literature dealing with self-evaluation in HE from numerous perspectives, but it is mainly focused on students (cf. Boud, Lawson, & Thompson, 2013; Lladó et al., 2013; McGarr & Clifford, 2013; Willey & Gardner, 2010). While few studies investigate how academic staff assess their own work (Adachi, Tai, & Dawson, 2018), knowledge from studies on students might be applicable to academic groups. Academics are, after all, also constantly being scrutinised by external parties or peers. At the same time, experience follows age, and older people might therefore have a broader platform from which to develop their self-efficacy.

A systematic review of academic self-efficacy amongst students reveals that students who have a high belief in their performing abilities also tend to perform well compared to students who do not

regard themselves as highly (Honicke & Broadbent, 2015). The same tendency is reported for study-related skills; when focusing on study skills and behaviour, academic self-efficacy is a predictor of performance and supports mastering the subject. Positive learning-related emotions, such as enjoyment, positively support reciprocal relations between learning and academic performance (Putwain, Sander, & Larkin, 2013).

Above, we suggested that the knowledge we have about students' self-assessment is not directly transferable to academics, simply because of the relationship between age and self-esteem. Students are at a stage in life where they are learning new skills, and as they are not confident in a profession or position in life, this might influence their self-esteem. This is also the case for young academics. Meanwhile, senior academics are experts in their fields, so both age and expertise might influence their perception of their knowledge and how they assess themselves. Still, both students and academics operate in collective systems in which groups share a belief in their capabilities and are influenced by collective efficacy (Pajares, 1996).

The next hypothesis is related to seniority—not in relation to numeric age but academic maturity. Developing in the academic path, from earning a PhD to continuing working toward professorship, takes persistence in overcoming hurdles and time-consuming tasks. Accomplishing tasks (e.g. on the way to becoming professor) has a positive influence on self-efficacy (Lane et al., 2004). Based on social cognitive approaches, mastering academic work can be viewed as a principal vehicle for the development of self-esteem and self-efficacy. Behaviour is also learned by observing; for example, peers and their perception of self-assessment can function as a model between academic groups (Bandura, 1974). This modelling is perceived at a collective level. Professors are experts in their fields, and this might influence their perception of how they assess themselves, reflecting collective (self-) efficacy. Associate professors are on the path to becoming experts and might show a lower level of self-esteem and self-efficacy. In light of this theory, the professors are modelling self-beliefs that could potentially influence professors-to-be, while associate professors are still in 'the making'. Against this background, we offer the following hypothesis:

- H5: *Professors are likely to show a higher level of self-esteem in teaching and research when compared to associate professors.*

Gender and self-esteem

Self-esteem is related to the self-worth of individuals and their ability to value and appreciate themselves (Lane et al., 2004). The literature suggests that both men and women show the same pattern of development of self-esteem throughout life. Self-esteem is relatively high during childhood, declines through adolescence, increases again during adult age and then starts to decline once more in old age (Lane et al., 2004). Although this pattern of development in self-esteem throughout life is

similar between genders, there is a gender gap in relation to the *level* of self-esteem. Women tend to report a lower level of self-esteem than men from the age of adolescence, but this gap is closing and ends as people reach older ages (Bleidorn et al., 2016).

These trends seem to vary across cultural spheres. In the Nordic countries, which are generally egalitarian, individualistic, prosperous and exhibit a high level of gender equality, the gap is high at a younger age but decreases during adulthood (Bleidorn et al., 2016). In contrast, in collectivistic, less prosperous countries with a high power distance and lower levels of gender equality, the gender gap is small in adolescence but increases through adulthood (Bleidorn et al., 2016). Given this, we pose a final hypothesis:

- H6: *Female academics are likely to show more moderate self-esteem in teaching and research when compared to their male counterparts.*

Dataset, methods and findings

The study relied on a survey (2014-2015) sent to academics at all universities in the Nordic countries, which included questions related to decision-making, performance management, incentives, funding, support services, autonomy and control and working atmosphere. The overall response rates for senior academics were 24% in Finland, 17% in Sweden and 10% in Norway; the respective effective sample sizes were 757 in Finland, 700 in Sweden and 1300 in Norway (for details, see Pulkkinen et al., 2019).

For this study, we used a subsample (see Table 1) and a limited number of variables. In order to have comparable country samples, we resorted to several filters to select academics who could be compared in terms of their self-evaluation. First, to ensure contextual knowledge, we only compared three of the four original countries (Finland, Norway and Sweden), hence excluding Denmark. Moreover, only senior academics were analysed (European career framework levels III & IV[1]). We filtered out all academics with non-permanent or part-time contracts because we know that—at least in Finland—the performance evaluations that are used for permanent and non-permanent faculty members, as well as for other working conditions, differ significantly (Kivistö et al., 2019). We also excluded all academics holding official management positions since they have more performance information, and their self-evaluation is also based on their managerial work (Kivistö et al., 2017).

The sample used in this article included 957 responses, of which 41% were from Finland, 32% from Norway and 27% from Sweden. The empirical analysis was undertaken by country, and we did not compare the countries statistically. The Finnish data were representative of the Finnish population

[1] Finland: Career level III: University lecturers/researchers, associate professors and Career Level IV: research directors, professors. Sweden: Career level III: lektor, and Career Level IV: professor. Norway: Career level III: førsteamanuensis (associate professor), førstelektor (assistant professor), post doc. Career level IV: professor, dosent.

in 2015, with professors minorly over-represented (4%) (Vipunen, 2021a). The disciplinary (Vipunen, 2021a) and gender representation of the sample also represented the population well (Vipunen, 2021b). Regarding Norway, the gender representation of the sample was slightly in favour of males (by 6% compared to their share in the total population, which was 34.5% for women and 65.5% for men). Professors were significantly underrepresented in the data compared to associate professors. This was the main weakness of the sample. Consequently, the hypothesis on seniority (H5) was only tested for Finland and Sweden. Finally, in Sweden the gender balance was also slightly skewed, with 59% of the respondents being male. There was a fairly even balance between respondents according to academic rank, with 60% associate professors and 40% professors. The distribution of the respondents in relation to their field of science was similar across countries.

Table 1. Survey respondents in Finland, Norway and Sweden

		Finland		Norway		Sweden	
		N	%	N	%	N	%
Gender	Female	153	38.6%	87	28.3%	104	40.9%
	Male	243	61.4%	220	71.7%	150	59.1%
	Total	*396*	*100%*	*307*	*100%*	*254*	*100%*
Comparative titles	Professor (career stage IV)	178	44.6%	15	4.8%	102	39.8%
	Associate professor (career stage III)	221	55.4%	297	95.2%	154	60.2%
Field of science	Natural Sciences	106	26.6%	90	28.8%	47	18.4%
	Engineering and Technology	49	12.3%	40	12.8%	26	10.2%
	Medical and Health Sciences	41	10.3%	40	12.8%	50	19.5%
	Agricultural Sciences	7	1.8%	3	1.0%	7	2.7%
	Social Sciences	103	25.8%	85	27.2%	84	32.8%
	Humanities	82	20.6%	44	14.1%	34	13.3%
	Other, please specify	11	2.8%	10	3.2%	8	3.1%

For dependent variables, we analysed both research performance and teaching performance as perceived by the respondents. Perceived performance in research and teaching was measured using two single-item, five-point variables. The variables for research were as follows: ‘Compared with colleagues in similar positions in my unit, in the last three years, I have published more’ (scale: strongly disagree to strongly agree), and ‘Compared with colleagues within my unit my research performance is’ (scale: below average to above average). The variables for teaching were: ‘Compared with colleagues in similar positions in my unit, in the last three years, I have had more teaching’ (scale: strongly disagree to strongly agree), and ‘Compared with colleagues within my unit my teaching performance is’ (scale: below average to above average). In addition, we studied the perception of collective performance in research utilising a single item variable: ‘research performance of my unit is higher when compared to other similar units elsewhere’ (scale: below average to above

average). To overcome the apparent differences between disciplines and units, the questionnaire items were formulated in relative terms (referring to 'colleagues in my own unit' or 'similar units elsewhere') (Kivistö, Pekkola, & Lyytinen, 2017). As independent variables, we used simple demographical/organisational items, namely, country, gender and academic position.

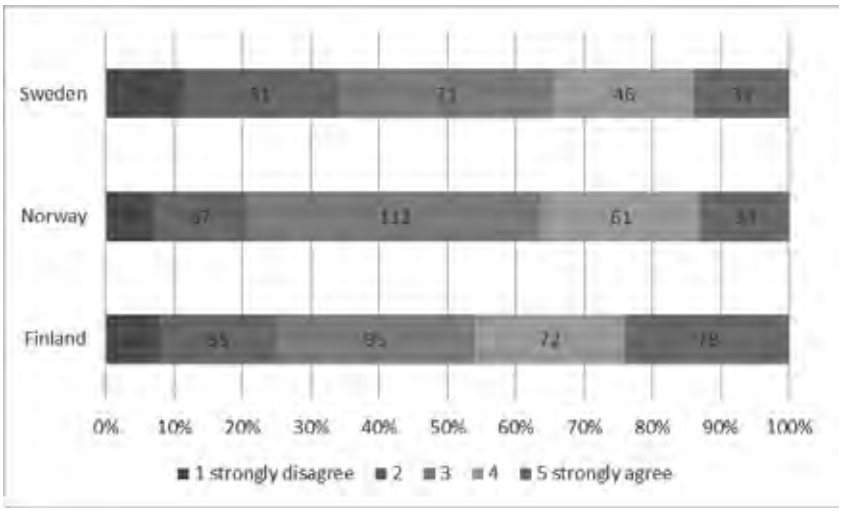
Findings

In this section, we test the hypotheses presented above, based on the survey data. The analysis utilised crosstabulation and mean comparisons. The statistical significance was tested with the chi square test and students' t-test, respectively.

The first hypothesis (H1) was formulated as follows: '*Academics are likely to perceive their teaching performance as lower when compared to that of colleagues within their immediate unit or department.*' H1 was formulated by mirroring the hypothesis related to research performance (H3).

Fewer than half of the respondents in all countries agreed with the statement that their teaching performance is higher than that of their colleagues. However, the hypothesis is not confirmed since the percentage of those who disagreed with the statement varied from between 20% (Norway) to 30% (Sweden). The differences were statistically significant ($p < .001$, $\chi^2 = 29.3$, df 8) and further strengthened by the more concrete question on teaching performance.

Figure 1. The frequencies of responses to the question 'Compared with colleagues in similar positions in my unit, in the last three years, I have had more teaching' by country.



Interestingly, perceived performance was higher when asked about in a more concrete manner than when asked about in a more abstract way. For example, when asked 'Compared with colleagues in similar positions in my unit, in the last three years', approximately 65% of the respondents in all

countries thought that they had been teaching above average. In the data, there was only a very limited number of respondents who thought that they had taught below the average. There were no statistically significant differences between countries.

Table 2. Self-evaluation of teaching performance compared with colleagues within one's unit by country

			The country in which you work (for your primary job):			Total
			Finland	Norway	Sweden	
Comp. with colleagues within my unit my TP is	1–2 below average		4%	2%	2%	3%
	3 average		30%	33%	33%	32%
	4–5 above average		65%	66%	65%	65%
Total		*Count*	*330*	*253*	*219*	*802*
			100%	100%	100%	100%

Our second hypothesis (H2) mirrors H4 and was formulated to study the perceptions of collective performance in teaching: '*Academics are likely to perceive their unit's performance in teaching as lower when compared to other similar units elsewhere*'. Additionally, the frequencies mirror the research findings. A majority of the respondents thought that their unit was performing higher than reference units. In Sweden, the share of respondents who agreed with this was as high as 66%. Again, there were few respondents who thought that their unit was performing better. In Finland, the share of persons considering their unit to be performing below average was slightly higher than in the other two countries. However, the number of respondents who viewed their unit's performance as low was also small in Finland. The country differences were statistically significant ($p < .05$, $\chi^2 = 19.3$, df 8).

Table 3. Self-evaluation of one's unit's teaching performance compared with other units in the university by country

			The country in which you work (for your primary job):			Total
			Finland	Norway	Sweden	
Comp. with other units in the university my unit's TP is	1–2 below average		7%	2%	4%	5%
	3 average		31%	37%	28%	32%
	4–5 above average		62%	61%	68%	63%
Total		*Count*	*22*	*243*	*210*	*775*
			100%	100%	100%	100%

Our third hypothesis (H3) was formulated as follows: '*Academics are likely to perceive their own research performance as higher when compared to their peers within their immediate unit or department*'. When estimating their overall research performance compared to that of their colleagues, more than half of respondents in all countries considered their research performance to be higher. The differences between countries were minor. In Norway, there were more respondents who thought that they were above average, while in Finland and Sweden more respondents who perceived that they

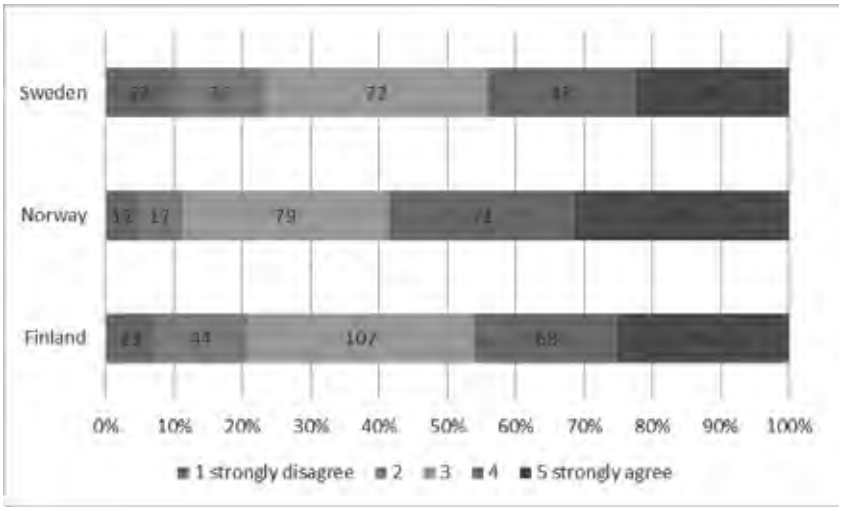
were performing at an average level. The percentage of the respondents considering that their performance was below average was low in all countries and varied from 11% in Finland to 5% in Norway. The differences were statistically significant ($p < .05$, $\chi^2 = 17.6$, df 8).

Table 4. Self-evaluation of research performance compared with colleagues within one's unit is by country

			The country in which you work (for your primary job):			Total
			Finland	Norway	Sweden	
Comp. with colleagues within my unit my RP is	1–2 below average		11%	5%	10%	9%
	3 average		28%	24%	33%	28%
	4–5 above average		61%	71%	57%	63%
Total		*Count*	*327*	*258*	*219*	*804*
			100%	100%	100%	100%

When asked more concretely '*Compared with colleagues in similar positions in my unit, in the last three years, I have published more*', fewer than half of the respondents in Finland and Sweden agreed with the statement, and in both countries more than 20% of the respondents disagreed with the statement. In Norway, the respondents responded more affirmatively to the statement than in Finland and Sweden. The differences were statistically significant ($p < .05$, $\chi^2 = 19.6$, df 8).

Figure 2. The frequencies of responses to the question 'Compared with colleagues in similar positions in my unit, in the last three years, I have published more' by country.



Our hypothesis related to collective performance (H4) was formulated as follows: '*Academics are likely to perceive their unit's research performance as being higher when compared to other similar units elsewhere*'. In all countries, approximately 60% of the respondents thought their unit was performing above average, while the percentage of respondents who thought that their unit was

performing below average was low (6–13%). There were no statistically significant country differences.

Table 5. Self-evaluation of one's unit research performance compared with other units in the university by country

			The country in which you work (for your primary job):			Total
			Finland	Norway	Sweden	
Comp. with other units in the university my unit's RP is	1–2 below average		13%	6%	11%	10%
	3 average		28%	30%	33%	28%
	4–5 above average		60%	63%	60%	61%
Total		*Count*	*330*	*253*	*219*	*802*
			100%	100%	100%	100%

- *H5: Professors show a higher level of self-esteem (5a) in teaching and (5b) research compared to associate professors.*

It seems that H5 holds only in research. In Finland and Sweden, there seem to be differences in perceptions according to title. Professors have higher self-esteem in research, while associate professors consider themselves better at teaching than their colleagues. Because of the low number of professors, the hypothesis was not tested for Norway.

Table 6. Means by title in Finland and Sweden (compared with colleagues within my unit, my research/teaching performance is below average–above average)

	Finland			*Sweden*		
	Prof.	Assoc. Prof.	sig*	Prof.	Assoc. Prof.	sig*
Teaching	3.7	4	< .01	3.7	4	< .05
Research	4.1	3.5	< .001	4.1	3.5	< .001

(*Student's t-test for independent samples)

- *H6: Female academics show more moderate self-esteem in teaching and research when compared to their male counterparts.*

The only statistically significant differences can be found in Finland in perceived research performance when analysing both associate and full professors. Male respondents thought that they were slightly more efficient (3.9) than female respondents (3.6) ($p < .05$). However, this difference did not persist when asking about the performance using more concrete terms.

Table 7. Summary of results

H1: *Academics are likely to perceive their teaching performance as lower when compared to that of colleagues within their immediate unit or department.*	*Not confirmed.* In all countries, 65% of the respondents thought that they were performing better than their colleagues. When asked more concretely, more persons agreed with the statement 'I am teaching more' than disagreed with this statement.
H2: *Academics are likely to perceive their unit's performance in teaching as lower when compared to other similar units elsewhere.*	*Not confirmed*. More than half of the academics in all countries thought that their unit was performing better within teaching than others.
H3: *Academics are likely to perceive their own research performance as higher when compared to their peers within their immediate unit or department.*	*Mostly confirmed*. When asked as in the hypothesis, more than half of the respondents across all countries thought that they were more performative than their colleagues. When asked more concretely, it was still more common to agree with the statement than disagree. However, a large share of the respondents had a neutral view of their comparative perceived performance. The response pattern was quite similar in all countries, although in Norway it seems to be more common to have higher self-evaluations.
H4: *Academics are likely to perceive their unit's research performance as being higher when compared to other similar units elsewhere.*	*Confirmed*. More than half of the academics in all countries thought that their unit was more performative (research) than others.
H5: *Professors show a higher level of self-efficacy (5a) in teaching and (5b) research compared to associate professors.*	a) *Not confirmed.* Associate professors considered themselves to be better performing in teaching (Swe, Fin). *b) Confirmed.* Professors considered themselves to be better performing in research (Swe, Fin).
H6: *Female academics show more moderate self-esteem in teaching and research when compared to their male counterparts.*	*Mostly disconfirmed.* There was only a minor difference in Finland when performance was asked about abstractly.

Analysis

The topic of this article has been how academics in the Nordic countries assess their own and others' performances. Our point of departure is that comparison and competition play an important role in current academic life (Krücken, 2021). Nordic universities have become objects of measurement and evaluation at various levels, with constitutive effects for academic staff (Hansen et al., 2019; Söderlind, 2020). Based on our theoretical strand, following Bandura (1982, 2001) and key insights from social cognition theory, social categories and organisational practices, a number of hypotheses were developed and tested in relation to the results of an online survey of academics that was sent to all universities in Finland, Norway and Sweden.

We began our analysis by discussing hypotheses (H1 and H3) related to the individual levels of performance in teaching and research. In the survey, we asked associate professors and professors how they assess their own research and teaching performance, respectively. Our hypothesis was that the evaluations should be better in the case of research but not in teaching. However, the cross-country results show that most respondents think they perform better than their peers in both academic tasks.

The expectation was that the academics were aware of their qualifications and performance due to the competitive system (de Boer, Jongbloed, Enders, & File, 2010; Pietilä, 2018) requiring associate professors to elaborate on their qualifications to become full professors. As teaching abilities have traditionally been given less attention in qualifying for professorship (partly because of the lack of reliable and openly available metrics for teaching performance), we expected that this would be less emphasised. The findings illustrate, however, that Nordic academics consider themselves to be better than their peers in both tasks. This is an indication of high self-efficacy (Lane et al., 2004) and confidence. However, the level of critical self-reflection can be questioned when most academics believe they are better than their colleagues. When everyone believes they are world class—that they all occupy the top of the hierarchical pyramid—then no one is world class (cf. Birnbaum, 2007). This finding is, on the one hand, a bit surprising when mirrored in the Nordic culture, which is influenced by the Law of Jante (Kaminsky, 2007; Scott, 2016), according to which one should not believe one is better than others, and where the egalitarian view of society is still strong (Hofstede, 2001). On the other hand, the road to an academic career is long, and the individuals have accomplished goal after goal to climb the increasingly competitive academic career ladder (Teichler, Arimoto, & Cummings, 2013). This might boost academics' self-efficacy, as their belief in their own abilities contributes to their confidence (Bandura, 1997; Lane et al., 2004). The results for the individual level also apply for the unit level.

Turning to the unit level, we asked academics about the performance of their units (e.g. departments) in comparison to other units through the testing of H2 and H4. Our findings show that the respondents believe their own unit performs better in teaching and research than other units. This result is similar in all three countries, with only small differences. There are two possible explanations here. First, as a theoretical construct, self-efficacy denotes collective (in-group) rather than simply individual attributes, as initially posited by Bandura (1986, 1997). Second, individual and collective performance appraisements are intertwined, and so high academic achievers may see themselves as an inherent part of high academic environments (for a recent discussion from Europe, see Kwiek, 2016).

Furthermore, we investigated differences related to rank: associate and (full) professor. The data allowed this testing only for Sweden and Finland. We hypothesised (H5) that rank would be important for self-esteem and that professors would consider themselves to be performing better than associate professors. This assumption turned out to be partly true empirically, insofar as research. Based on the findings, professors are more confident and show higher levels of self-efficacy than their junior peers regarding research, while the opposite is true when it comes to teaching performance. This could be interpreted in light of the fact that Nordic professors have successfully overcome the challenge of attaining tenure or full professorship, thus boosting their self-efficacy (Lane et al., 2004). Self-efficacy could also be interpreted in light of seniority, which is related to accomplishing tasks and the collective modelling and development of a shared perception of high capabilities at the group level (Bandura, 1974; Pajares, 1996). In contrast to associate professors, who are not yet acknowledged as

full academic peers, professors are regarded as experts in their fields (external recognition). This might affect the way they see themselves and their professional abilities, particularly in terms of research. Professors within Nordic universities tend to teach less and have a stronger focus on research than associate professors (Pinheiro et al., 2019), so it is not surprising that they (seniors) judge their performance as higher, comparatively speaking. This could partly explain why professors report lower levels of self-efficacy related to teaching performance. Indeed, the associate professors across the sample showed higher levels of self-efficacy when compared to their senior peers, which might reflect the fact that they are teaching more than full professors.

Finally, the last hypothesis (H6) posited that female academics are more modest than males in their self-assessment. This turned out not to be empirically true. The data show no or very few differences between males' and females' performance self-assessments across the board. This finding is in line with ongoing trends suggesting that the gaps between male and female self-esteem within egalitarian countries, including the Nordic countries, are low in adulthood (cf Bleidorn et al., 2016). Two additional explanations could be advanced here. First, the prevalence of the logic of excellence or competitive ethos amongst Nordic academics as a result of multiple reform processes in the last three decades and the infusion of market-based elements like performance indicators (Hansen et al., 2019; Pinheiro et al., 2019) have increased transparency and improved the conditions for comparisons between academics. Second, the great strides in gender balance across the academic profession in the Nordic countries in the last three decades (Husu, 2019; Pinheiro, Geschwind, Hansen, & Pekkola, 2015) are acting as a great normaliser when it comes to traditional gender differences.

Concluding section

In this study, we set out to address two research questions, using social cognitive theory as a conceptual lens:

- *How do Nordic academics assess their own performance in teaching and research when compared to their peers?*
- *What does that assessment tell us about the changing culture of the academic profession in the Nordics and beyond?*

Regarding the first question, a total of six hypotheses were derived, of which two were confirmed, three were disconfirmed and one was partially confirmed, as shown in Table 6. Overall, Nordic academics were found to assess their own performance in teaching and research as being above average when compared to their peers. This finding is somewhat surprising in light of the cultural notion of the Law of Jante, which suggests the adoption of a low-key or humble attitude. However, as speculated above, this could be partly due to increasing competition in Nordic HE as a result of

market-based reforms and the rise of a performance-based regime. A final (tentative) explanation could be related to the fact that, as a norm, the Jante Law is mostly practiced in public rather than in private, so a private inquiry (like an online and anonymous survey questionnaire) may elicit different responses than focus groups or face-to-face interviews.

Regarding the second question posed in the paper, the findings suggest that, as pointed out in earlier studies (Kehm & Teichler, 2013; Teichler et al., 2013), the academic profession is in constant flux as a result of a set of endogenous and exogenous factors: government-mandated reforms, cultural and demographic shifts in society, changes in the institutions of science, new modes of knowledge production, gender shifts in academia, etc. More importantly, the observed changes regarding self-efficacy are, to a large degree, the result of the prevalence of new performance management approaches (cf. Pinheiro et al., 2019), which prioritises measurement and evaluation at the expense of judgement, as pointed out recently by Spence (2019):

The testing of the hypotheses revealed a number of patterns regarding the level of self-esteem amongst associate and full professors in the Nordic countries. However, given the flaws of the dataset, a more valid and representative empirical foundation is needed to gain a better understanding of how the changing political and socio-economic context of universities affects the self-efficacy of academic staff. Finally, regarding socio-cognitive theory, the findings point to the critical interplay between individual (own performance) and collective elements (reference to one's peers) associated with self-efficacy. To the best of our knowledge, this is an aspect that has not yet been properly explored and thus requires further unpacking both within and beyond the academic profession.

References

Adachi, C., Tai, J.H.-M., & Dawson, P. (2018). Academics' perceptions of the benefits and challenges of self and peer assessment in higher education. *Assessment & Evaluation in Higher Education*, *43*(2), 294-306.

Bandura, A. (1974). Behavior theory and models of man. *American Psychological Association*, *29*(12), 859-869.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychological Association*, *37*(2), 122-147.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1997). *Self-efficacy. The exercise of control*. New York: WH Freeman and Company.

Bandura, A. (2001). Social cognitive theory and clinical psychology. *Behavioral Sciences*, 14250-14254.

Birnbaum, R. (2007). No world-class university left behind. *International Higher Education*, 47, 7-9.

Bleidorn, W., Denissen, J.J., Gebauer, J.E., Arslan, R.C., Rentfrow, P.J., Potter, J., & Gosling, S.D. (2016). Age and gender differences in self-esteem — A cross-cultural window. *Journal of Personality and Social Psychology*, *111*(3), 396-410.

Boud, D., Lawson, R., & Thompson, D.G. (2013). Does student engagement in self-assessment calibrate their judgement over time? *Assessment & Evaluation in Higher Education*, *38*, 941-956. https://doi.org/10.1080/02602938.2013.769198

DBH. (2021). *Database for statistikk om høyere utdanning [Database for statistics on higher education]. Online at: https://dbh.hkdir.no/*

de Boer, H.F., Jongbloed, B.W., Enders, J., & File, J.M. (2010). *Progress in higher education reform across Europe, Funding reform, Volume 1: Executive Summary and main report*. Enshede: Center for Higher Education Policy Studies (CHEPS).

Eekman, A.M., Kinney, A.R., Shierl, M.L., & Henry, K.L. (2019). Academic performance in student service members/veterans: effects of instructor autonomy support, academic self-efficacy and academic problems. *Educational Psychology*, *39*(8), 1005-1026.

Geschwind, L., & Pinheiro, R.M. (2017). Raising the summit or flattening the agora? The elitist turn in science policy in Northern Europe. *Journal of Baltic Studies*, *48*(4), 513-528.

Hansen, H.F., Geschwind, L., Kivistö, J., Pekkola, E., Pinheiro, R., & Pulkkinen, K. (2019). Balancing accountability and trust: university reforms in the Nordic countries. *Higher Education*, *78*(3), 557-573.

Hofstede, G. (2001). *Cultures consequences, comparing values, behaviors, institutions and organizations across nations.* Thousand Oaks, CA: Sage Publications.

Honicke, T., & Broadbent, J. (2015). The influence of academic self-efficacy on academic performance: A systematic review. *Educational Research Review*, *17*, 63-84.

Husu, L. (2019). Gender equality in Nordic academia: advances and challenges. In D. Vujadinović & Z. Antonijević (Eds.), *Rodna Ravnopravonost U Visokom Obrazovanju: Koncepti, prakse i izazovi* (pp. 63-73). Novi Sad, Serbia: Akademska knjiga.

Kallio, K.-M., Kallio, T.J., Tienari, J., & Hyvönen, T. (2016). Ethos at stake: Performance management and academic work in universities. *Human Relations*, *69*(3), 685-709.

Kaminsky, D. (2007). The Zorn trials and the Jante Law: On shining musically in the land of moderation. *Yearbook for Traditional Music*, *39*, 27-49.

Kehm, B.M., & Teichler, U. (2013). *The academic profession in Europe: New tasks and new challenges*. Dordrecht: Springer.

Kivistö, J., Pekkola, E., & Lyytinen, A. (2017). The influence on performance-based management on teaching and research performance of Finnish senior academics. *Tertiary Education and Management*, *23*(3), 260-275.

Kivistö, J., Pekkola, E. and Pausits, A. (2019). Academic careers and promotions in Finland and Austria: System and institutional perspectives. M. Mahat & J. Tatebe (Eds.), A*chieving academic promotion (Surviving and thriving in academia)* (pp. 105-125). Bingley: Emerald Publishing Limited.

Krücken, G. (2021). Multiple competitions in higher education: a conceptual approach. *Innovation*, *23*(2), 163-181.

Kwiek, M. (2016). The European research elite: A cross-national study of highly productive academics in 11 countries. *Higher Education*, *71*(1), 379-397.

Kwiek, M. (2018). High research productivity in vertically undifferentiated higher education systems: Who are the top performers? *Scientometrics*, *115*(1), 415-462.

Kyvik, S. (2012). The academic researcher role: enhancing expectations and improved performance. *Higher Education*, *65*(4), 525-538.

Lane, J., Lane, A.M., & Kyprianou, A. (2004). Self-efficacy, self-esteem and their impact on academic performance. *Social behavior and Personality*, *32*(3), 247-256.

Lladó, A.P., Soley, L.F., Sansbelló, R.M.F., Pujolras, G.A., Planella, J.P., Roura-Pascual, N., . . . Moreno, L.M. (2013). Student perceptions of peer assessment: An interdisciplinary study. *Assessment & Evaluation in Higher Education*, *39*(5), 592-610.

McGarr, O., & Clifford, A.M. (2013). 'Just enough to make you take it seriously': Exploring students' attitudes towards peer assessment. *Higher Education*, *65*, 677-693. https://doi.org/10.1007/s 10734-012-9570-z

Musselin, C. (2018). New forms of competition in higher education. *Socio-Economic Review*, *16*(3), 657-683.

Nybom, T. (2003). The Humboldt Legacy: Reflections on the Past, Present, and Future of the European University. *Higher Education Policy, 16*(2), 141-159.

Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research*, *66*(4), 543-578.

Pietilä, M. (2018). *Making Finnish universities complete organisations: Aims and tensions in establishing tenure track and research profiles* (PhD dissertation). University of Helsinki, Helsinki.

Pinheiro, R., Geschwind, L., Hansen, H.F., & Pekkola, E. (2015). Academic leadership in the Nordic countries: Patterns of gender equality. In H. Syna, & C. Costea (Eds.), *Women's voices in management: Identifying innovative and responsible solutions* (pp.15-33). London: Palgrave Macmillan.

Pinheiro, R., Aarrevaara, T., Berg, L.N., Fumasoli, T., Geschwind, L., Hansen, H.F., . . . Söderlind, J. (2019). Nordic higher education in flux: System evolution and reform trajectories. In R. Pinheiro, L. Geschwind, H.F. Hansen, & K. Pulkkinen (Eds.), *Reforms, organizational change and performance in higher education. A comparative account from the Nordic countries* (pp. 69-108).

Cham: Palgrave Macmillan.

Pulkkinen, K., Aarrevaara, T., Berg, L. N., Geschwind, L., Hansen, H. F., Hernes, H., ... & Söderlind, J. (2019). Does it really matter? Assessing the performance effects of changes in leadership and management structures in Nordic higher education. In R. Pinheiro, L. Geschwind, H.F. Hansen, & K. Pulkkinen (Eds.), *Reforms, Organizational Change and Performance in Higher Education* (pp. 3-36). Palgrave Macmillan, Cham.

Putwain, D., Sander, P., & Larkin, D. (2013). Academic self-efficacy in study-related skills and behaviours: Relations with learning-related emotions and academic success. *British Journal of Educational Psychology*, *83*(4), 633-350.

Schwartzer, R., Bässler, J., Kwiatek, P., Schröder, K., & Zhang, J. (1997). The assessment of optimistic self-beliefs: Comparison of German, Spanish and Chinese versions of general self-efficacy scale. *Applied Psychology*, *46*(1), 69-88.

Scott, S. (2016). Politeness as collective facework: The case of Swedish Jante Law. *Sussex Research Online*, 1-36.

Simon, H.A. (1997). *Administrative behavior*. New York: Free Press.

Spence, C. (2019). 'Judgement' versus 'metrics' in higher education management. *Higher Education*, *77*(5), 761-775.

Söderlind, J. (2020). *A metric culture in academia. The influence of performance measurement on the academic culture of Swedish universities* (Doctoral Thesis in Technology and Learning). KTH Royal Institute of Technology, Stockholm. Retrieved from https://www.diva-portal.org/smash/get/diva2:1461211/FULLTEXT01.pdf

Teichler, U., Arimoto, A., & Cummings, W. (2013). *The changing academic profession: Major findings of a comparative survey*. Dordrecht: Springer.

Vipunen (2021a). *The online data service of educational administration* (Ministry of Education and Culture Report). https://vipunen.fi/fi-fi/_layouts/15/xlviewer.aspx?id=/fi-fi/Raportit/Yliopistojen%20opetus-%20ja%20tutkimushenkil%C3%B6kunta%20-%20tieteenala.xlsb

Vipunen (2021b) *The online data service of educational administration* (Ministry of Education and Culture Report). https://vipunen.fi/fi-fi/_layouts/15/xlviewer.aspx?id=/fi-fi/Raportit/Yliopistojen%20opetus-%20ja%20tutkimushenkil%C3%B6kunta%20-%20tutkijanuravaihe.xlsb

Ward, M., Gruppen, L., & Regehr, G. (2002). Measuring self-assessment: Current state of the art. *Advances in Health Sciences Education*, *7*(1), 63-80.

Weiner, B. (1988). Attribution theory and attributional therapy: Some theoretical observations and suggestions. *British Journal of Clinical Psychology*, *27*(1), 93-104.

Weiner, B. (2010). Attribution theory. In *International encyclopedia of education 6* (pp. 558-563).

Willey, K., & Gardner, A. (2010). Investigating the capacity of self and peer assessment activities to

engage students and promote learning. *European Journal of Engineering Education*, *35*(4), 429-443.