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HIGHER EDUCATION AND RESEARCH IN ACADEME — WHO SHOULD PAY?

EDITORS:
TIMO AARREVAARA AND ELISABETH BERG

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**HIGHER EDUCATION AND RESEARCH IN ACADEME
- WHO SHOULD PAY?**

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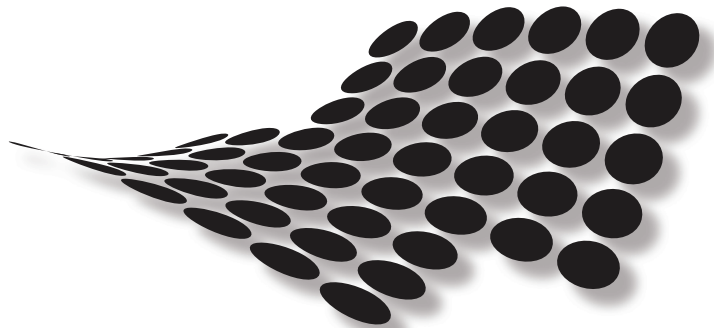
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Timo Aarrevaara Elisabeth Berg

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CHAPTER I

INTRODUCTION

Timo Aarrevaara and Elisabeth Berg

This anthology is based on papers from the conference "The Academy in recession?" 9.–10.2.2012 organized by Hanasaari Cultural Centre, Consortium of higher education researchers in Finland (CHERIF), and Network for higher education and innovation research at the University of Helsinki. The conference was a continuation of the first Swedish-Finnish conference, held in March 2009, followed by seminars in December 2009 and June 2010 in and Helsinki respectively.

The overall question for this conference was: Is academe in recession and, if it is, what consequences does that have on academic work? The conference included participants from the Nordic countries and also papers where Nordic countries are compared with other European countries. The aim for the anthology is to provide a broader understanding concerning what happens in the Academy with a focus on the Nordic countries, Papers were presented which considered issues concerning the work situation for academics, such as teaching, management and leadership, gender and finance. Universities have gone through a transformation since mass education was introduced in the 1960's, with the increasing growth in student numbers, professionals and institutions leading to another

kind of organizational structure across Europe (Hallonsten and Holmberg 2013).

In what ways has the Academy changed and are there similarities or differences between the Nordic countries and others? Who is paying for the research and education today? What happens with gender issues in the Universities of today? The function of researcher in the Nordic countries has long remained traditional. Universities have been funded by the public sector with the main tasks being research, teaching and interaction with the surrounding community, as well as the provision of information about their activities through publication, teaching along with cooperation with local, regional and national authorities. However, researchers have expressed concerns that share many common themes. Some scholars are worried about the impact of the recession on higher education. As Sue Wright, one of the keynote speakers, described it the system in Denmark seems to emphasize scholarly publications, yet very few read them. These worries cannot be restricted to Nordic countries, however, as this appears to be more widespread across Europe. Another example – it has been shown that there is a "third space", a professional area that falls between academic and

'administrative' work, an issue that was highlighted on many occasions. Hans Mäntylä, another keynote speaker, drew our attention to the fact that development work and the role of developers is still open for further discussion. A third keynote speaker, Lars Haikola, University chancellor in Sweden, pointed out that the Humboldtian university concept has never really become established in the era of mass higher education. He also considered the revisions for Universities concerning research funding, including pressure to ensure that all Universities in Sweden should finance research with 50% external funding. Yet this is something only a few Universities have achieved, mainly Universities of technology where research is funded to a higher degree by industry in contrast to social sciences and the humanities.

The Nordic model of the University has changed in a way that does not necessarily correspond to the expectations of society. Instead of competition between individual researchers or research teams, it is now being seen more and more between Universities and higher education institutions. This has repercussions in a number of ways. In academic work, for example, the segregation of research and education due to new divisions of labour is central. Are we witnessing a growing separation between research and teaching, also in Nordic countries? Research investments do not necessarily follow students. There is a government focus on autonomy for the higher education institutions, which means that they become more dependent on, and potentially at least open to influence from, external sources of funding, along with conflict of interest among directors and trustees and ICOI – institutional conflict of interest as Sheila Slaughter ex-

plained in her presentation. Financially there is an alteration in the transition towards purpose-based models of block-grant funding for education and research which means a transition from centralized financing to a decentralized framework involving many simultaneous channels. This is something that affects all Nordic countries. Universities are, however, in a highly competitive market, with a focus on the individual rather than the collective; and today there are more Universities and researchers competing for research funding (Ljungberg et al. 2009).

New public management reforms, which introduced neo-bureaucratic organizational regimes, have attempted to influence Universities over the last 25 years in favour of surveillance, monitoring and evaluation that deploys private sector management techniques and mindsets. With this follows, as might be expected, a preference for and emphasis on control over professional collegiality, which objectifies decision-making, now based on quantitative metrics that reflect what can be seen as predominantly financial priorities and thereby contrasting value sets. This follows a neo-liberal trend in the Nordic countries, as well as Europe and large parts of the OECD world more generally (Hood 1995), where new public management acts to embed the reforms, providing the organizational glue to make them stick and difficult to dislodge (Clarke 2004). Neo-liberalism has thus been influential in all this becoming what has been described by one academic commentator as "the dominant force in thirty years" across Europe and elsewhere (Harvey 2005), having had no less than a "central role in the politics of anti-welfarism and anti-statism" (Clarke 2004:9). There are differ-

ent viewpoints concerning what neo-liberalism is precisely and what it stands for as it is an emergent phenomenon appearing in widely different contexts, but Harvey (2005) outlines what he identifies as the common features:

“Neoliberalism is in the first instance a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade. The role of the state is to create and preserve an institutional framework appropriate to such practices ... There has everywhere been an emphatic turn towards neoliberalism in political-economic practices and thinking since the 1970s ... Neoliberalism has, in short, become hegemonic as a mode of discourse. It has pervasive effects on ways of thought to the point where it has become incorporated into the common-sense way many of us interpret, live in, and understand the world” (Harvey 2005, 2–3).

Research, teaching, administration and management constitute the main tasks for academics in Universities. These are associated with career routes that academics can aspire to and choose to develop. For most academics with a doctoral degree the aim is to make a research career, although it seems that for many the first priority is to secure a permanent position as this provides opportunities for them to continue with their research. The assumption is that research is something most academics want to engage in after their doctoral degree, the *raison d'être* for entering academe.

The Swedish government has, since 2001, steered research by introducing large-scale programs for the funding of what is known as “excellent research”. Through the establishment of internationally competitive Centres of Excellence, with a high priority in research fields such as medical, technological and natural sciences (Government bill 2004/05:80, 1), the intention is that research will be strengthened. As discussed in chapter by Virtanen, Silander and Pietilä in this book, most research in Sweden are researcher-driven in the sense that individual researchers are the applicants rather than universities per se. This is nonetheless well in line with the global academic system that is developing in the direction of increased stratification, something which is also occurring in Sweden. It certainly seems that most universities are working towards stratification and specialization which includes certain kinds of research; a development once more paralleled in Sweden. Yet research is about passion, some would say love, invoking a dualistic way of thinking with management as it's opposite, perhaps its antithesis or nemesis some might say, where control and the associated neo-bureaucratic mechanisms of surveillance and deployment of objectified metrics create anxiety; perhaps also fear. Yet, however contrasted, the two are often considered as somewhat out of sync with one another in the contemporary Academy.

Even so, as higher education researchers know, there are “small worlds, but different worlds” in the Academy. These researchers have relationships, which may appear within the network as research projects, publications and other forms of collaboration. However, the nodes of this network are scholars, research groups and the higher education

institutions. Perhaps for cooperation to flourish among Nordic researchers in higher education, research might more productively take place in a loosely coupled system, the partnerships surviving best if it they are allowed to remain flexible.

Will the key players in the future be strongly branded higher education institutions and Universities, rather than academic departments? The possibility of individual researchers surviving without belonging to a research group in the contemporary Academy may end up being the exception rather than the rule. Internationalization it seems is becoming a necessity not just for the Nordic countries, even if Universities are not yet internationalized to the extent expected. Perhaps Nordic co-operation could be a major strength within this wider international context.

Timo Aarrevaara discusses senior faculties' role in the European perspective. Research, tends to be internationally focused, in small countries and small languages. In Nordic countries there are a national-level funding systems to motivate this. National differences are evident for senior faculty in terms of casualization, work content and internationalization. Will the national differences be harmonized, in Nordic countries over time?

The purpose of the chapter by Turo Virtanen, Charlotte Silander and Maria Pietilä is to compare governmental steering between Finland and Sweden. With the aim to investigate to what extent the general policy of focusing research is implemented by centralised decisions of state organs as opposed to the decentralised decisions of universities. The focus are on Finland and

Sweden and the public research system, and how resources are allocated, where both Finland Sweden has emphasised strong research environments and excellent researchers, and special grants have been introduced for sponsoring these, and also by strengthening networks, management, and performance evaluation. The chapter show that higher education have been more pressured to perform with tighter financial constraints, and also research funding has become more contested in western countries, and in the same time HEIs need to take more accountability (Martin 2003). Universities have to 'do more with less' which has led to reform strategies, including instruments such as strategic planning, restructuring, and reallocation of resources. University profiling, with specific research focus has become an international phenomenon. There are two major differences between the countries; in Finland the Government has been active in promoting profiling in the Universities, which reflects the goals of the ministry and their communication between Universities and the ministry, where in Sweden there are a weaker connection between Universities and the ministry about profiling. However in both countries the government try to find ways to evaluate research. Sweden there are the attempts to create profiles for universities in need of information and economic incentives as policy instruments, though Finnish authorities have been using more regulatory instruments together with economic incentives.

The chapter by Christa Tigerstedt is connected to a bigger research project where I aim at describing the current leadership discourse in HEIs in the chosen setting. What kind of a discursive practice is the rector's leadership of today? What kind of

subject positions occurs and how do these build up the HEI leadership discourse in the chosen setting. However, since this is the very initial findings related to this project the main research question of relevance here is: What does the rector talk about in the inauguration speech? This is investigated by looking at the inaugurations speeches held by HEI rectors. Main findings are reported in the form of occurring themes.

In the first of his two chapters in this anthology, Romulo Pinheiro discusses convergence between regional policy and higher education policy by illustrating recent developments from Norway. He illustrates the paradigm shift from the old regionalistic tradition to the idea of decentralized regional policy with strong economic, technological, political and cultural development. The evidence of this chapter is in the strategic platforms of the existing regional centers of expertise in terms of problem-assessment and in defining problem-assessment and defining policy goals and their respective instrument. Among the Nordic countries, Norway seems to be an example to convergence between regional – and higher education – policy.

The chapter by Elisabeth Berg, Jim Barry and John Chandler examines the consequences of the turn to managerialism in higher education in England and Sweden, following the introduction of New Public Management reforms. The chapter considers some of the gender implications, which are explored through the accounts of eight, long-serving, female academics in two countries. The first interviews were conducted in 2001 with two female academics in Sweden and two in England, and followed up ten years later in 2011–2012 with

four new interviewees, all long-serving female academics. The same interview questions were used at both occasions; although the same academics were not interviewed we choose women in the same positions and also had been long-serving academics. While there were differences between the two countries, there was also much similarity. In 2001 respondents generally presented a negative picture of the reforms and highlighted the problems of adjusting to them. Ten years later there seemed to be more accommodation to the reforms. They liked the idea of being chosen as middle managers and also believed they were going to do research at the same time. And yet the gendered implications of this are significant: women academics are clearly finding it difficult to pursue research to the extent that they would wish, while they are taking on many teaching and administrative functions.

The focus of the chapter by Eva Källhammer and Åsa Wikberg Nilsson is the development of a method for applied gender research in higher education. The aim is to describe the implementation of the method in situations that stimulate reflective practice and to describe how the Persona method can be used to stimulate reflection in new ways. In this chapter the authors are using the persona method as a way of supporting the development of a reflective practice for undergraduates and staff in Higher education. This involves a critical analysis of 'what is', current experiences of the situation explored, with the purpose of challenging current logic. In the long run, such processes can contribute to a change of stereotypical gender assumptions, as well as support the development of a reflective approach in

higher education. A persona is a fictional representation of empirical data, used as a tool to communicate situations or issues. Sweden as a country is well-known for its gender equality, but women in higher positions as professors in academe are still in minority. The conclusion is that the Persona method can be one contribution to moving from teaching to learning, and to develop reflective gender-aware practices.

Natalia Karmaeva analyses the Nordic countries as internationally recognized for being in the avant-garde of gender equality issues. The author points out that according to the World Economic Forum's Global Gender Gap Report 2010, Iceland (1), Norway (2), Finland (3) and Sweden (4) continue to demonstrate the greatest equality between men and women (see Nordic Countries Top gender Gap Index...). Having achieved a stable institutional basis in the promotion of gender equality, the Nordic countries have commissioned the promotion of women in science earlier than in other European countries (. Earlier research show that there less female students entering higher education in Germany compared to Sweden, and also even less female doctoral students, about 30 percent. In this chapter the author address the question how do female teaching academics experience their involvement into teaching in German universities and how do they negotiate their professional identities.

In the chapter by Lisa Olsson, Leif Denti and Sven Hemlin the authors analyse if the quality of leader-follower relationships has repeatedly been associated with positive individual and organizational outcomes. The questions they are asking are; how

can leaders improve on the quality of the relationships they have with their followers? Their method is quantitative research where they examined a sample of 166 Swedish academic and commercial researchers and their leaders. Their focus and goal is to investigate whether two cognitive variables – the Cognitive Support and the Knowledge Resources leaders provide their followers – and are as they describe it antecedents of leader-member exchange (LMX). They are particularly focused on the qualifications in relation to the four sub-dimensions of LMX, which are; Affect, Loyalty, Contribution, and Professional Respect. The exception was the failed association between Cognitive Support and Loyalty. They argue that these findings have implications for leadership in creative knowledge environments, with the conclusion that, to improve the quality of leader-member relationships, the authors show that the leaders in higher education should provide their followers with Cognitive Support and Knowledge Resources.

Sakari Ahola looks at the concept of evidence-based policy in a specific higher education policy domain related to study times and prolongation. During the last decades several reforms have been initiated including occasional research. Practically nothing has happened, however. One is thus inclined to question whether there is lack of evidence, lack of understanding of the evidence, lack of suitable measures, or are the objectives themselves somehow flawed or unrealistic?

Rómulo Pinheiro traces the short-term effects of recent HE reform processes at the institutional level, by focusing on the case of a mid-size, comprehensive university (Oulu) located in a relatively

peripheral region and with the mandate to serve the North most parts of the country. The first part of the chapter provides a brief description of the external conditions (national and regional levels) under which the case university operates. It then moves on to illustrate the strategic steps (central and unit levels) undertaken by the case university in order to adequately respond to changes in its operational and regulative environments. The chapter concludes by highlighting the main lessons learnt and by suggesting avenues for future research.

The Nordic Conference on Higher Education and Research gave the floor to the scholarly community to highlight recent research findings. The conference was looking for recession but also who are the key players in higher education; and who will decide on the level of resources for higher education and science now and in the future. The chapters of this publication do not constitute the coherent answer for the questions raised in conference. They bring out, however, views on how scholars see the phenomena of changing Nordic higher education. ●

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CHAPTER II

SIMILARITIES AND DIFFERENCES IN THE CHANGING NORDIC ACADEMY

Timo Aarrevaara

Changes in higher education systems over the last twenty years in Europe have been part of a global phenomenon. In the background has been the massification of higher education, but at the same time society has demanded an expansion of the research and social interaction roles of higher education institutions. This is also reflected in the actors that effect changes in the academic profession. This chapter presents a view on senior academics of the European perspective, and as evidence, comparative data from four European countries and the USA have been used. These data have been taken from the Changing Academic Profession (CAP) survey and "The changing academic profession: the impact of globalisation, diversification and institutional reorganisation on academic work and employment conditions in Finland" (EUROAC-FIN).

Keywords: *Academic profession, seniority, content of work, career paths*

During the last 15 years, expectations about the impact of the European Higher Education Area (EHEA), European Research Area (ERA) and the Bologna Process have been increasing (Aarrevaara & Hölttä 2007). At the edge of Horizon 2020 Science in Society the Nordic higher education is facing demands for more relevance in research. Under these policies and more generally the establishment of the European knowledge society, there is evidence of a trend for European integration that did not reach higher education until the end of the 1990s. This is seen in the increased de-

mands placed on teachers, demands for stronger stakeholder co-operation, as well as productivity, relevance and valorisation in research (Benneworth & Jongbloed, 2010; Fairweather, 2002; Teichler, 2008). The European Union relies on higher education and on research being relevant to the development of society, which is also reflected in society's significant investments in the sector's development.

These changes are a challenge to European higher education governance models, which demand ac-

countability and transparency. In today's Europe, higher education consists of several groups of actors involved with innovation systems, funding, and national policies. National decision-making is more complex than before and is based more than in the past on a multi-level governance model due to the stronger role of the European Union. The requirement for higher education to be dynamic and for the funding base to be diversified from reliance on direct public funding presents a quite different reality for universities than the one existent in the end of 20th Century. Shifts from government control towards markets mean increased competition for universities' scarce resources, which also leads to increased competition for students and staff. All this affects the nature of work of the academic community. It is clear that the academic profession is changing within this framework.

Higher education institutions have from the mid-2000's onwards explicitly targeted international co-operation in university research and funding (Lasthiotakis et al., 2013). Nordic higher education is no exception, as modern duties have traditional expectations for work for scholars in the academy. Large-scale changes in Finnish universities have occurred over recent decades. These reflect the new generations' expanded access to higher education, and at the same time the level of public funding has remained high – 80 per cent of Finnish higher education funding is public. While this public funding is decreasing, Finnish higher education has seen mergers between universities and polytechnics into larger entities, in of the quest for economies of scale. It has also meant that a single academic work profession has been fragmented into a range of departments involved in the traditional

functions of the academic profession and often a generalised dimension for work including teaching, research and engagement with society.

Changes in the work in academy have recently been documented. After the Changing Academic Profession survey (CAP) was conducted, follow-up research in the form of The Academic Profession in Europe – Responses to Societal Challenges (EUROAC-FIN) was undertaken in 2011, as part of a comprehensive study of eight European countries (Teichler & Höhle, 2013; Teichler, Arimoto & Cummings, 2013). The Finnish sample comprised 88 interviews that focused on researchers, academic leaders and teachers in higher education. This presentation presents a review the CAP survey and EUROAC results in general, and conclusions about the need to conduct such a study in the Nordic countries.

Evidence of the attractiveness of the academic profession

In Northern Europe, there really were no national higher education systems before the 1960s. Higher education was mainly based on a small number of autonomous universities, and the influence and control exerted by national governments was weak. In universities, the disciplines were strong, and in such systems, the funding of higher education was based on the provision of a high level of resources by nation states. The system guaranteed the continued disciplinary-based capacity. Changes to this were being seen in many respects by the 2000s, but no coherent comparative data were available to provide evidence of this change.

AARREVAARA

Higher education institutions in the Nordic countries have a strong tradition, one which emphasises the importance of academic networks. In particular, researchers in universities are strongly committed to the academic community inside and outside of the academy. Scholars are less committed to the institutional strategies and of goals, and more committed to the academic dimension and its institutions. When universities are subjected to reform processes, academics find themselves standing between the collegial, entrepreneurial and managerial cultures. During the EUROAC interviews, professor of humanities and arts described a situation of very low hierarchies of disciplines, and this is a long tradition in this subject. But in some other subjects there are very hierarchical structures. In her opinion, young researchers no longer seem to have a concrete perception of university governance.

The changing academic profession survey came at an appropriate time to provide evidence about change in the academic profession. The CAP survey was the successor to the 14 countries' Carnegie-survey, which took place in the early 1990s (Altbach, 1996). Not all of the participating countries from the Carnegie survey responded to the CAP survey in 2007–2008, but new countries came in. Carnegie Survey results have been extensively documented, and it was used as a basis for the drafting of the CAP Survey. The starting point for the CAP survey was also the attractiveness of an academic career in the competing labour market and the ability of the academic profession to transfer national goals into something tangible for the knowledge society. Comparisons were made between higher education systems, institutions,

disciplines and generations. This survey can also be seen as part of the wider debate on academic staff (Cavalli & Teichler, 2010; Finkelstein, 2010), with themes related to management (Fisher et al., 2011) and career paths (Bennion & Locke, 2010).

Senior academics and duration of employment

In Europe, some countries have binary higher education systems comprising universities and polytechnics (or universities of applied sciences). The nature of work is different as a clear majority of respondents had a primary interest in research in universities and teaching in universities of applied sciences (Aarrevaara et al., 2011). In some countries, the academic profession is also bound up with sectoral research institutes working with research and teaching-related tasks at the university. There are countries in which the collegial tradition is strong, and countries in which the stratification is dominated by the academic profession as a factor to define leadership relations. Working conditions and the responsibilities and opportunities for members of the academy to influence decision-making are important regardless of their affiliation as full-time or casual staff members. And all in all, there are considerable differences between the working conditions and power to influence decision making between junior and senior academics.

There is no unambiguous and global definition of academic staff ('faculty' in US parlance), because such a definition is always linked to each country's circumstances and culture. Academics produce information for research institutions in the public and private sectors, and they form the core of the

scholarly profession in society. They work in trade, the service sector, industry, academic administration or libraries. Roughly speaking, the academic profession refers to persons with an academic occupation at higher education institutions, who tend to be in academic departments undertaking academic tasks (Dill 1982). In some countries, members of the academic profession are defined as civil servants, and this is a case also in Germany even in higher education institutions those have ceased from state administration into universities of formally foundations with a semi-public character (Teichler 2011). In some countries, the majority of the academic profession work in private universities. In other countries, members of the academic profession work full-time in the academy, and in others again, there are countries in which favour adjunct-type contracts. In these countries the affiliation of academics to a single university is quite weak.

The professoriate as part of the academic profession has an important role in the academy and a

special responsibility for the production and valorisation of the knowledge base for their disciplines.

Table 1 shows that the senior academics in most of these countries are primarily engaged under terms of permanent employment. In the USA, high number of permanent work contracts is based on the tenure-track system. Around 85% of the respondents from the USA reported that they were permanently employed and 8% were focusing on a tenured position. This practice is affecting to nature of work in the academy as a one of the options for increasing academic freedom for academics.

In addition to traditional career paths, there is also the mobility between the various sectors in society and within the academy. Mobility between sectors means that there will always be senior academics who do not have established permanent posts. In Finland, fixed-term posts have always been a major way to employ academics. For example, appointing staff to fixed-term chairs financed by private

Table 1. Duration of current employment contract (per cent, seniors in universities).

	Permanently employed (tenured)	Continuously employed	Fixed-term employment with prospect of permanent employment	Other	Total (%)
Finland	55	3	34	8	100
Germany	91	5	4	0	100
Norway	94	1	4	1	100
UK	96	2	2	0	100
USA	85	8	6	1	100

and public donors is seen as one way to bring flexibility to the system.

Changes in the content of work

The change in the work in academy is evident, and it is affected by a number of factors. A prominent factor is massification, which has changed the nature of academic work substantially. As student numbers have grown, systems have been set in place to make academic work more accountable and transparent. These systems include using measured performance to direct and control academic work, reward-based salary systems, institutional quality systems and more accurate and regulated qualifications for academic staff. The growing management involvement is a major reason why

the senior academics' administrative burden has increased.

The differences between the five countries shown in Table 2 are clear when paying attention to university senior academics' use of work (Aarrevaara & Pekkola, 2011). The affiliation to the academy is mainly based on research, and almost all academics have research duties in addition to their teaching duties (Vabo, 2011). Nevertheless, the Table 2 shows that senior academics are spending more time during term on teaching than research, and instruction is the largest use of time. The total number of working hours in Finland is remarkably higher than in Norway. Much of the time spent on teaching-related activities, however, takes place outside the classroom, due to the need to prepare

Table 2. Hours spent on academic activities when classes are in session (universities, seniors, per week, arithmetic mean).

Country		Teaching	Research	Service	Adminis- tration	Other duties	Total hours per week	N
Finland	Mean	19.6	13.5	2.6	8.1	3.3	47.1	195
	%	41.6	28.7	5.5	17.2	7.0	100	
Germany	Mean	18.5	17.3	6.8	8.5	4.7	55.8	147
	%	33.2	31.0	12.2	15.2	8.4	100	
Norway	Mean	17.5	12.8	2	6.8	3	42.1	337
	%	41.6	30.4	4.8	16.2	7.1	100	
United Kingdom	Mean	18.0	12.9	1.8	10.6	3.6	46.9	239
	%	38.4	27.5	3.8	22.6	7.7	100	
USA	Mean	18.6	14.6	5.4	8.8	2.8	50.2	404
	%	37	29	11	18	6	100	
Total	N							1322

Source: CAP Survey, data 20.9.2011.

lectures and marking examinations. That is why the teaching work is based on collaboration with other professions in the academy. Time spent on administration takes a significant proportion of working hours in all the countries shown in the table. In countries where top-down management and stratification are strong, administrative tasks are focused on senior academics.

Different scopes for internationalisation

A range of actors share responsibility for internationalisation in the academy, and the ownership of the key processes is not always in the hands of academics. In these circumstances, the professoriate seeks to find a new independent role. This role is that of internationalisation and globalisation, which are obviously gaining strength. However, within the professoriate, internationalisation is unevenly distributed, as can be seen in Table 3.

Research, regardless of its nature, tends to be internationally focused, so in small countries and small

language areas there is a strong interest in research and publishing abroad in foreign languages. In the Nordic countries national-level funding systems motivate this practice. For example, in Finland and Norway, publications in foreign journals are considered preferable to publication in domestic journals. US respondents publish domestically more often than their European counterparts.

The high impact of publications is still a strong quantitative measure of research, whereas it is more difficult to quantify teaching and therefore to compare the relative merit of teaching and research. In EUROAC interviews it was reported, that academic career is still based first of all on research merits, first of all external funding and peer-reviewed international publications. Norway rates classification of scholarly publication forum, and in Finland equivalent forum is becoming part of Ministry of Education and Culture's funding model. It seems that the internationalisation of research in Northern Europe will continue to be strong for these reasons.

Table 3. Modes of international publication production (senior academics, universities).

	Co-authored with colleagues located in foreign countries (%)	Published in a foreign country (%)	N
Finland	18	60	192
Germany	19	46	141
Norway	22	59	352
United Kingdom	15	28	216
USA	10	11	384

Source: CAP Survey, data 20.9.2011.

More specialised academic careers

The CAP and EUROAC studies indicate that younger cohorts prefer a different academy to older cohorts. We also know that universities are striving for a world class view and research based on future needs, and that polytechnics are looking for stronger regional impact and international capacity. All of them want to contribute to society and for their achievements to be relevant ones. The problem is that society might change its demands before the academy meets the current needs.

The problems associated with resource allocation are evident in all the Nordic higher education systems. The reason behind this phenomenon is that universities are now expected to do more, while the human resources have not increased at the same rate. In EUROAC data it can be read that it is hard to find an adequate balance between the tasks to be performed and resources. The problem of delegation can be seen in the way the resources run with a different time cycle and a variety of destinations than processes of work. This causes continuing problems and dissatisfaction. To solve the delegation problem seems to be one of the key management issues for the 21st Century.

There are also academic profession-related changes caused by the change in society. Such a feature is, as Judy Szekeres (2011) has remarked, that academic roles are being shifted to administrative areas such as admissions, careers, academic integrity and orientation. An illustrative example is the educational use of ICT. Teaching and learning in the ICT network environment has changed the nature

of instruction in classrooms, and caused a specialisation in teaching or research. This is a change in the mode in which the teaching is structured by different processes. This is not unambiguously positive in the European research universities, as teaching based on teachers' own research has a strong tradition.

In the USA the experience has been similar to that in the Nordic countries. The massification of higher education during the past 20 years has increased the work load of scholars in the academy. This is also the case in the USA, where the teaching emphasis has grown while the resources for teaching and research have declined. In the USA, a growing work description for more specialised roles in teaching or research can be seen. As a result of this trend, the level of academic productivity has declined in key scholarly results as in publications (Cummings & Finkelstein, 2013). As a practical result of this trend, US scholars with contingent appointments find it hard to find vacant senior rank positions, as the career tracks in different disciplines differ.

National systems are still strong, especially in Europe, but the trend is moving inevitably towards globalisation. National differences are evident for senior academics in terms of casualisation, work content and internationalisation. However, globalisation in this case means that the national differences will be harmonised, over time. Will this also occur in the Nordic countries? The new generations have become more mobile than their predecessors, and they are more familiar with different conditions in other countries and systems. The CAP Survey examples presented above show how big the differences can be between these five

countries. Internationalisation allows that these differences come into play.

It is clear that the Nordic countries do not share similar structures of their respective academic professions. It is important to understand the different dimension of the academic work in the Nordic perspective. The Nordic countries are a natural area for academic mobility, but the obstacles to this mobility prevent the realisation of academic labour markets.

National differences are evident for senior academics in terms of casualisation, work content and internationalisation. However, globalization in this case means that the national differences will be harmonised, over time. Will they in Nordic countries? The new generations have come to be more mobile than their predecessors, and they are more familiar with different conditions in other countries

and systems. The CAP Survey examples presented above show how big the differences can be between these five countries. Internationalisation allows that these differences come into play. Globalisation, however, takes the practice in a single direction.

When the academic profession survey was carried out in 2008, two Nordic countries were involved: Finland and Norway. While the higher education systems of Nordic countries are different, they also share common characteristics and many similar problems. In Finland and Norway it would be possible to build a time series, and the Danish and Swedish changes would be useful to compare the results of the other Nordic countries. Iceland is unique, but not scrutinised too often. If a global academic profession survey is ever carried out again, it would be important to achieve a broader representation from the Nordic countries. ●

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CHAPTER III

NATIONAL STEERING AND PROFILING OF ACADEMIC RESEARCH IN FINLAND AND SWEDEN

Turo Virtanen, Charlotte Silander, and Maria Pietilä

The purpose of the chapter is to compare the governmental steering of research in Finland and Sweden. In both countries, policies emphasise the relevance and excellence of academic research. Examples include Finland's establishment of SHOKs and Swedish initiative of having strategic research areas. However, the countries differ in their use of centralised and decentralised policy instruments. The Finnish authorities have been more active in profiling the research of individual universities.

Keywords: *Research policies, Finland, Sweden, research profiling*

Introduction

Competition between national governments for greater shares of the global economy has led governments to think more strategically about the production of academic knowledge and its dissemination (Hazelkorn 2005). Universities are said to have an instrumental role in the knowledge society: they are seen as means of producing material well-being and welfare for society.

Governments today assess academic knowledge production and dissemination in terms of their strategic potential: how might research produce material benefits for individuals and society (Ziman 1996; Connell 2004). The term *academic capitalism*

refers to the growing influence of market forces on academic research, which has coincided with a shift in the funding of higher education from block grants to specific goals related to supporting the development of industry (Slaughter & Leslie 1997).

For many years, higher education institutions (HEIs) have been under pressure to expand their academic output but within tighter financial constraints. Research funding has become more contested over in western countries, and at the same time, HEIs are faced with calls for greater accountability (Martin 2003).

Strategic planning has become crucial at the level of states and regions, as they adjust their activities

to scarcer resources and environmental pressures (Barrow 1996). University profiling, including the setting of *research focus areas*, is an international phenomenon (e.g., Meier & Schimank 2010). According to Barrow (1996, 453–454), the imperative that universities ‘do more with less’ has led American universities to adopt reform strategies, including instruments such as strategic planning, restructuring and the reallocation of resources. Barrow states that in the US, the ideal of the *multi-versity* has been altered to a *strategy of selective excellence*: to differentiating the missions of universities, identifying or eliminating weak academic programmes, focusing on areas with critical mass, and concentrating resources into larger units.

In Finland, the government resolution on the public research system (2005) has set the goal of ensuring and promoting the impact, quality, content and efficiency of Finnish universities. This goal is being pursued by allocating resources to bigger entities and by strengthening networks, management and performance evaluation. The current development plan for education and research includes the goal that HEIs should profile themselves according to their strengths (MEC 2011, 44).

Interest in university profiling has been growing in Sweden as well. Recent Swedish research policy calls for a greater concentration of research as well as profiling to achieve research excellence (Government bills 2004/05:80; 2008/09:50; 2012/13:30). Strong research environments and excellent researchers have been particularly emphasised, and special grants have been introduced to support these.

Purpose of the study

This chapter presents some of the findings of the research project ‘Priority-setting in Research Management (PrisMa) – Organisational and Leadership Reactions to Institutional Reforms in Finnish and Swedish Universities’, a project primarily interested in the profiling of academic research at the level of university organisations in Finland and Sweden. Both countries have been active in profiling academic research, but their governance of higher education and research systems are not alike, meaning that their policy instruments used in profiling research differ.

The purpose here is to compare governmental steering between Finland and Sweden. Our aim is to investigate to what extent the general policy of focusing research is implemented by the centralised decisions of state organs as opposed to the decentralised decisions of universities.

The research data consist of policy documents, such as government bills, strategic plans, research policies and reports. The chapter begins with a description of the Finnish and Swedish contexts of the national steering and profiling of academic research. We then continue by comparing the findings related to the centralisation and decentralisation of steering structures and policy instruments (Hill 2013; Hood 2007).

Governmental policies in Finland

The policies of profiling academic research may be linked to university mergers. The recent mergers of Finnish universities have reduced their number

from 20 in 2009 to 14 in 2013. However, these mergers have not been directly related to the policy of profiling research. Rather, the government sees them as part of its policy of establishing a better division of labour between the HEIs and creating larger institutions (MEC 2007).

All Finnish universities share the same mission in terms of legal regulation (University Act 558/2009), such as promoting free research. In addition to the universities, there are 24 polytechnics (Universities of Applied Sciences) at the tertiary level of higher education. The polytechnics do not have doctoral programmes and have been expected to engage in research and development (R&D) activities only since 2003 (see the international evaluation, FINHEEC 2012). Today, the polytechnics have a responsibility to conduct applied research, as well as development and innovation activities oriented to strengthening the competitiveness of public agencies and the private business community in their regions.

The central actors of the national steering of academic research in Finland are the government, the Ministry of Education and Culture (MEC), the Research and Innovation Council, and the public funding agencies the Academy of Finland and Tekes (the Finnish Funding Agency for Technology and Innovation). All these organisations have played a role in implementing the policy of profiling academic research. In 2012, governmental R&D funding was 2,010 million euros (4.0% of all governmental appropriations; Statistics Finland 2012).

According to the Finnish government, the profiles and priorities of the HEIs should be strengthened

(MEC 2011, 44). In the higher education network, the overlapping supply will be pruned, administration and support services will be pooled and centralised, and infrastructure cooperation will be stepped up. The government has earlier set the following target (MEC 2007, 34): *'In 2012 the higher education system will consist of universities and polytechnics in accordance with the dual model. Each university and polytechnic will have a distinct profile in terms of teaching, research, links with working life and regional development.'*

The profiles of universities and polytechnics will be sharpened *'to bring strategic priorities into clear relief, which will facilitate the targeting of research funding and competition for international research funding.'* More specifically, *'universities' research prerequisites will be strengthened in the selected strategic priority areas and especially in research-intensive universities.'* (MEC 2007, 34.)

Target and performance negotiations between the ministry and each university are one of the government's major instruments for the implementation of these goals. Based on these negotiations, the MEC asked all universities to set their strategic research foci for the contract period 2010–2012. In 2010 and 2011, the MEC recommended that the universities specify their research foci further.

In accordance with governmental policy, the Research and Innovation Council decided to establish 'strategic centres of science, technology and innovation'(SHOK) in 2006. They were meant to be new kinds of knowledge environments that would support the competitiveness of Finnish business and society. The government also took the initia-

tive to clarify the status of governmental research institutes and to reconsider the division of labour between them and the universities (MEC 2011).

The basic funding of universities is lump-sum budgeting (public block grants). There is no division between funding for education and funding for research; the strategic choices have been left to the universities. In 2009, the basic funding from the MEC to the universities was 1,511 million euros (64.7%) and the external, competitive funding was 825 million euros (35.3%). The largest amounts of external research funding were from the Academy of Finland (175 million euros; 21.2% of all external funding), Tekes (106 million euros; 12.8%), domestic companies (105 million euros; 12.7%), other domestic sources (317 million euros; 38.4%), and the EU (94 million euros; 11.4%) (KOTA database). Thus the research funding decisions have largely been in the hands of various funding organisations, who emphasise their own priorities.

The basic funding of universities has not included instruments specifically oriented to profiling the universities or setting their priorities. So-called strategic funding has been part of the funding formula, but its role has been marginal. According to the new formula of basic funding, the proportion of strategic funding is 10 per cent from 2013 onwards. It is probable that strategic funding will play a major role in terms of profiling and priorities, as this is one of the main goals of the new funding formula.

The results of a comparative study of national research policies (Viljamaa et al. 2010) indicate that the role of thematically targeted funding schemes,

most notably those of the Academy of Finland and Tekes, is stronger in Finland than in its reference countries who, in turn, emphasise more researcher-driven funding.

The Finnish Research and Innovation Council (established in 2009, formerly the Science and Technology Policy Council of Finland) assists and advises the government and its ministries in matters relating to the direction, follow-up, evaluation and co-ordination of research, technology and innovation policy (MEC – Research and Innovation Council). The Prime Minister is the chair of the council, other members being ministers and members with expertise in research and innovation. In 2010, the council stated that Finland should make '*clear choices that will support a) specialisation in competitive areas of strength*', and have '*b) the ability to identify and support promising research, competence and business areas*' (RIC 2010, 18).

The role of the council has been relatively strong in the policy formulation of profiling. The policy guidelines are implemented by the government, the Academy of Finland, and Tekes within the framework of available funding.

Implementation of policies

In 2011, funding by the Academy of Finland accounted for 16% of governmental R&D spending in Finland. Funding has been allocated to a wide variety of research activities, such as academy projects, targeted academic projects, research programmes, and centres of excellence in research (Academy of Finland 2012). Funding is competition-based and granted for a fixed period.

International scientific peer reviewers assess the applications. There are several funding instruments. The instrument of research programmes focuses research onto certain prioritised areas, suggested by researchers and institutions. The councils of the Academy prepare the proposals for the programmes, which are decided on by the board of the Academy. The objective is to launch two programmes each year (Academy of Finland Research Programme Strategy 2011).

Centres of Excellence in Research are an instrument to raise the quality standards and to improve the competitiveness of Finnish research. They concentrate funding in top-level groups, but are not connected to strategic research areas in the prioritisation of applications. However, applications must be formally related to the strategy of the applicant's university.

The research areas of targeted Academy projects may be part of the Academy's research programme or connected to it. The thematic areas are decided by the Academy's councils, and many areas reflect national and international collaboration between the councils and external partners. The joint funding for the themes varies within the range of 0.5–4 million euros per call.

Yet another funding instrument of the Academy of Finland and Tekes used in setting research priorities is the Finland Distinguished Professor Programme (FiDiPro), which provides funding for distinguished foreign researchers to work in Finland.

All in all, although the Academy of Finland emphasises the links between the funded research and

the strategic choices of the applicant's university, it does not always require a direct connection to the research focus areas of the university.

Whereas the Academy of Finland is a science-based funding agency, Tekes is a more mission-oriented agency: it finances research, development and innovation. In 2011, Tekes invested 147 million euros in projects launched by universities (approx. 24% of Tekes' total funding). Funding is focused on applied and strategic research, and its commercialisation. The staff of the agency review the applications, not external peer reviewers like in the Academy of Finland. Tekes has six focus areas. In 2011, approx. 54% of all R&D funding from Tekes was targeted at strategic choices, mostly applied research in which business sector involvement is strong (Tekes 2012).

Tekes coordinates the research programmes of the SHOKs. Between 2008 and 2012 it funded the SHOKs with 375.5 million euros together with the Academy of Finland and private companies. The centres are major strategic areas of research, as well as platforms of collaborative research and innovation activities.

Governmental policies in Sweden

The Swedish university system contains about 50 institutions: 12 older and four newer universities, five university colleges with the ability to award doctoral degrees in certain areas, nine other university colleges, and a number of other specialised institutions. Doctoral degree programmes in Sweden can be offered by universities and university colleges that are entitled to award third-cycle

qualifications. The newer institutions have a larger share of the education (i.e. number of students). In terms of research, the twelve older universities completely dominate and receive about 90% of all research funding (Ljungberg et al. 2009). This has created two distinct groups of HEIs in the Swedish university system: one with a large volume of both research and education, and another which depends on education and carries out only a marginal amount of research.

Since 2009 three university mergers have taken place (and one is planned for 2013) driven by changes in government funding, which since 2006 has been less favourable to the smaller universities and university colleges (Benner et al. 2010). The mergers have been supported but not ordered by the government (Geschwind & Melin 2011, 11).

The Swedish public science funding system is a mix of *institutional block grants* and a *competitive funding scheme*. The block grants constitute the basic funding of the universities. Almost all publicly funded research is carried out by the universities (Dellnäs & Deiacò 2008). Government funding for R&D was in 2012 SEK 31 billion (3,599 million euros), or 3.8% of total governmental appropriations (Statistics Sweden 2012). About a half (47%) of the government funding for research is distributed as direct grants to the universities and university colleges. Block grants for research are separate from block grants for education and other activities. An additional quarter (25%) is distributed to the universities through external funders. The rest of the funding is allocated mostly to military research (Swedish Agency of Higher Education 2012).

The Swedish structure of research funding councils was reorganised in 2001, when three governmental research councils were created: the Swedish Research Council, the Swedish Research Council for the Environment, Agricultural Sciences and Spatial Planning (Formas), and the Swedish Research Council for Working Life and Social Research (FAS). The Swedish Research Council (given 16% of government R&D funding in 2012) supports research within research infrastructures, medicine, humanities and social science, natural and engineering sciences, as well as educational sciences, and artistic research and development. Most of the Council's research grants are distributed to researcher-initiated projects. The Swedish Research Council for the Environment, Agricultural Sciences and Spatial Planning (Formas) (3.3% 2012) supports basic and needs-driven research in the fields of the environment, land-based industries and spatial planning. The Swedish Council for Working Life and Social Research (FAS) (1.3% in 2012) supports research into areas such as the labour market, work organisation, work and health, public health, welfare, the social services and social relations. The Swedish Governmental Agency for Innovation Systems (VINNOVA) (6.7% in 2012) aims to strengthen Sweden's innovativeness, aid sustainable growth, and benefit society (Statistics Sweden 2012; Swedish Research Council 2013).

Sweden has followed the global trend of public research and higher education being increasingly important for social welfare, technical development and economic growth (Hallonsten & Silander 2012). The message from the government has been to increase the competitiveness of universities through strategic profiling and concentrating

resources. Recent legislation concerning research has addressed the lack of focus and long-term perspectives in research funding, and has ordered a higher degree of concentration and profiling in order to achieve excellence and competitiveness in the strategically chosen areas (Government bills 2004/05:80; 2008/09:50; 2012/13:30).

Sweden has a long tradition of using the HEIs as the main research performers (Dellnäs & Deiaco 2008; Sörlin 2004). Research funding has traditionally been based on initiatives from the researchers. This has created a researcher-dependent funding system and has resulted in a situation where research covers a broad range of areas (Forskningsberedningen 2010). Reforms of the funding system, such as introducing new schemes and restructuring governmental funding agencies, have been made (Benner & Sörlin 2007), emphasising strong research environments and excellent researchers. Several of the largest research funding agencies have over the last decade established special programmes to foster strong research environments. About 10% of Swedish public research funding can be considered to consist of so-called 'excellence programmes' (Sandström et al. 2010).

Priorities are acted upon in different ways in the Swedish system. Some of the research councils and agencies have specific missions, but they also support basic research. A calculation made by the Royal Swedish Academy of Engineering Sciences (2009, 15) estimated that two-thirds of external funding of the Swedish research councils is spent without a thematic profile.

Implementation of policies

Research policy in Sweden has increasingly focused on *excellence* and *concentration*. A quality-based system has been introduced to influence the research priorities funded by block grants. The research priorities in Sweden will in what follows be described in terms of 1) the new system of funding based on the quality of research introduced in 2009, and 2) the introduction of programmes for the funding of excellent research in the last decade.

With the Government bill of 2008, the amount of direct research funding was substantially increased. The extra amount was to be distributed based on a ranking of quality calculated as the number of internationally published articles and citations (Forskningsberedningen 2010; SOU 2007, 81). Since 2009 the government has allocated part (10% which will be raised to 20%) of its direct funding to the universities based on a bibliometrical indicator (Government bill 2012/13:30). The aim of the model is to produce incentives for institutions to work harder in the area of profiling (Government bill 2008/09:50, 23).

Another tool of governmental efforts to concentrate research has been the introduction of large-scale programmes for the funding of excellent research. Two of the larger research programmes, in terms of money and duration, are the *Linnaeus grants* and the *Strategic Research Areas*. One of the goals is that research be strengthened through the establishment of internationally competitive centres of excellence giving a high priority to medical, technological, and environmental research

among other fields (Government bill 2004/05:80, 1).

The Linnaeus Grants aim to provide the possibility to concentrate on and enhance research of high quality (Government bill 2004/05:80, 1), as well as to provide support for long-term funding. Individual research environments could receive funding of up to 10 million SEK (1.2 million euros) a year for a maximum of ten years. In total, the Linnaeus grants distribute approximately 280 million SEK (33 million euros) over a period of 10 years (Swedish Research Council 2009). The objective of the grants has been to encourage universities and colleges to prioritise research fields by concentrating the funding: 'It is crucial that universities and university colleges be stimulated to create a profile' (Government bill 2004/05:10). The effort to build a strong research environment should be endorsed by the rector in each case, and should address how the grant would be part of the institution's strategic priorities.

Another large initiative, the Strategic Research Areas programme, has been allocating 5,270 million SEK (612 million euros) to 20 areas over a period of five years (2010–2014). The government's view is that the block grant system had resulted in a lack of long-term perspectives and risk-taking and has created many problems (e.g., large amounts of money distributed according to criteria other than the quality of research). Research up to now has been primarily funded by direct grants or by external funding from public funders to individual researchers or research groups. To address this situation, a government bill proposed increasing the support for a number of 'selected strategic

research areas' for the period 2009–2012. The programme should be a mix between the peer review system of the institutional block grants and the long-term competition funding schemes (Government bill 2008/09:50, 24).

This funding, channeled through the universities, should be linked to the mission of further developing the research in the strategic areas and eventually being part of the profile of a university. Areas selected for support were those of strategic importance to society and the business sector. The 20 strategic areas were chosen by the government based on their excellence and possibilities of solving important global problems as well as strengthening Swedish business competitiveness (Government bill 2008/09:50).

Comparisons

The governments of both Finland and Sweden have increasingly moved to support the concentration of research funding and the profiling of universities. Their policies emphasise the relevance and excellence of academic research. Examples include the establishment of SHOKs in Finland and the initiative of strategic research areas in Sweden.

The two countries have distinct academic systems. The Finnish university system is dual, consisting of universities with strong research capabilities and polytechnics with a stronger orientation towards teaching. Sweden officially has a unitary system, but in practice there is a difference between the older universities and newer institutions concerning research capabilities. In this sense the systems actually resemble each other.

A move in the direction of reducing the number of HEIs through a process of mergers has taken place, but the process has been different in the two countries. In Sweden, the mergers can be characterised as being bottom-up processes initiated by the HEIs and supported by the government. The Finnish government has initiated mergers more actively, and the process has been one of negotiations between the Ministry of Education and Culture and the universities.

An important difference between the countries concerns the role of the government. In Finland, it is notable that the government and the ministry responsible for education and research affairs have been active in promoting profiling in the universities. The recent processes of university profiling in Finland reflect the goals of the ministry and the dialogue between the ministry and the universities. In Sweden, on the other hand, the equivalent ministry has not directly attempted to profile individual universities. Instead, a weaker form of steering has been implemented through national public funding devices, such as the introduction of a quality-based funding distribution system and large excellence initiatives.

Another major difference between the two countries relates to the tools of governmental steering – the policy instruments. A comparison of direct governmental research funding is difficult due to the different systems. In Finland, the MEC finances universities without allocating funding separately to education and research, while in Sweden this division is made. In Sweden, the attempts to create profiles for universities have relied more on information steering about policy objectives as

well as economic incentives as policy instruments. The Finnish authorities have used more regulatory instruments together with economic incentives and information steering.

In Finland the funding applied from the Academy of Finland and Tekes is researcher-driven, partly within the framework of research programmes. Funding agencies do not expect that applied funding commit universities to create research profiles in concert with the focus of funding – as opposed to the practice of the Strategic Research Areas in Sweden. As well, in Sweden the majority of applications to the research councils are researcher-driven. The Finnish government has made no decisions about strategic research areas: all programmes have been decided at lower levels by the public funding agencies. Instead, the Finnish government has stated that universities should create profiles that are based on their strengths and it has offered small amounts of extra funding for strategic areas. To date, there has been no coordination between the strategic research areas of the universities and the targeted research instruments of the public research funding agencies.

Although the Swedish government's efforts to profile research at the level of universities are weaker than in the case of Finland, the government still endeavours to steer research. However, most research is researcher-driven in the sense that researchers are the applicants instead of the universities, although a general focus may be set by the research council in the calls for proposals. In Finland, the responsibility of profiling research is in the hands of both the universities and public research funding agencies. Most of the applica-

tions are researcher-driven, not university-driven. The Finnish case relies on decentralised decision-making, which leads to challenges, if the aim is to create nationally coordinated research areas. In

the end, it is the volume of funding allocated to strategic research areas which is important in terms of the effectiveness of the policy. So far the volume has been quite small in both countries. ●

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CHAPTER IV

EDUCATIONAL LEADERSHIP IN HEIS IN FINLAND – A THEMATIC INSIGHT INTO THE RECTOR’S SPEECH

Christa Tigerstedt

This paper is connected to a bigger research project where I aim at describing the current leadership discourse in HEIs in the chosen setting. In my research I aim at answering the following questions: What kind of a discursive practice is the rector’s leadership of today? What kind of subject positions occurs and how do these build up the HEI leadership discourse in the chosen setting. However, since this is the very initial findings related to this project the main research question of relevance here is: What does the rector talk about in the inauguration speech? This I investigate by looking at the inaugurations speeches held by HEI rectors. My main findings so far will be reported in the form of occurring themes.

Keywords: *Higher education, steering, discourse, leadership, speech, Finland*

What does the rector talk about in the inauguration speech?

This I investigate by looking at the inauguration speeches held by HEI rectors between 2008–2010. My main findings thus far are reported in the form of occurring themes. The paper is of an explanatory/explorative art and a starting point for my research on HEI leadership in Finland today. This study shows that the speeches fill an informative function. Furthermore I found 6 main themes that occurred frequently in the speeches that were analyzed.

Researching the HEI leadership

In Finland the focus on HEI institutions has often been on policy and on the sociology of education (Simola (2009); Kauko (2011); Varjo (2007)). We also find studies that examine accreditation and evaluation of the system and transnational agents, e.g. agencies, such as OECD, (see Saarinen & Ala-Vähälä (2007)). The macro perspective has been favored. These perspectives form a valuable point of departure for me in this paper.

There are also researchers who have examined the micro level in HEIs focusing on management and

visions as well as on strategic management etc (see Kirveskari (2003); Toikka (2002); Remes (2003)). Nikander (2003) has studied HEI management, but the focus was then on universities of applied sciences only. In my research the rector and his/hers leadership is the focus. It is a micro perspective focusing on the rector which in turn will help to highlight the rector's HEI leadership discourse of today. My micro-meso level thinking in this paper, inspired by Teichler & Sadlak (2000), Maassen in Amaral et al (2003) and Tight (2000), is not that thoroughly studied within Finland (nor in the European context for that matter) and since HEI and leadership is a growing area for research more studies in this area are needed (Teichler & Sadlak, 2000). Tight as well (2000) speaks generally about how sparse in theory the higher education field is and that more research is welcome.

Juppo (2011) has investigated the HEI change management and the university rector's role after the new university law. Juppo also asks for continued research dealing with whether the rector's new role and task are changing the leadership in the universities. When answering this one comes very close to my research.

In the Nordic countries we have Moos (2009) and Möller (2009) who have been discussing the NPM (New Public Management) and democratic education. They show concern with regard to the new managerialism and what direction our democratic education tradition heading in these turbulent times. They likewise mostly have investigated basic education. Here we find research on rectors and superintendents (Höög & Johansson, (2011); Moos, (2009)).

Players in the HEI field and ongoing change processes

The higher education system in Finland consists of traditional universities and universities of applied sciences. The former are more involved in traditional academic research and while the latter concentrates more on applied research and closeness to professional working life. (Yrkeshögskolelagen 2003) Currently Finland has 14 universities and 25 universities of applied sciences. I am aware of the fact that these two types of higher education institutions are very different, but I still want to be able to include them both in this study since I want to cover the whole sector as defined by the Finnish Ministry of Education and Culture. The external pressure (outer arena of tension, including national and transnational agents) is in this case forming and influencing the context for both types of HEIs.

In the HEI field we can see that the HEI sector is in for many changes and has been so for a long time. Välimaa (2004) said that from being an institution building up the nation state the HEIs are now a part of the 'national innovation factory'. Their task became a more innovation and research driven one. (Välimaa, 2004, 40–41.) At present one can identify the following main change processes in the HEI field: Profiling and specialization, consolidation, effectiveness, restructuring (forming of alliances, mergers), internationalization, ranking, accreditation, transnational evaluation, legislation, change of financial position, change in ownership etc. (Development plan)

On January 1st 2010 Finland enacted a new university law (Universities Act) and currently a new

law for the universities of applied sciences is taking form. The main idea behind the university law was the aim to strengthen the Finnish universities premises for success in an international surrounding. Due to the new autonomy that the law imposes the university is now able to act much faster on occurring changes. (Universities Act 2009)

The HEI leadership in Finland

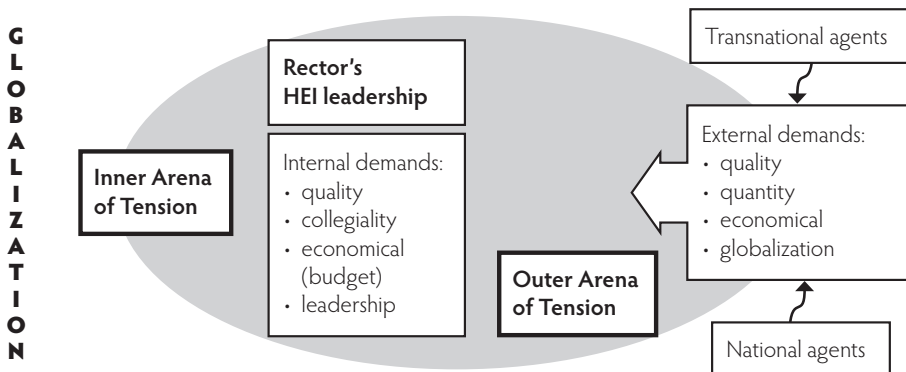
Leadership within the sector has of course not gone unaffected by all that is taking place. The leadership has become more decentralized over the years, but in Finland as well as in other countries one can see that certain processes has been introduced regarding accountability and evaluation (Salminen, 2003). As for the university rector he/she is also been held more accountable today because of the new university law where he/she is now more responsible in front of the university board. The rector is a presenter in the board meetings, is responsible for the finances, the effectiveness and the results as well as the implementation of decisions. Furthermore the rector is in charge of the personnel and is more and

more a CEO. (Juppo, (2011) The NPM related processes are occurring and one can also see that our educational institutions and our ministry of education and culture are starting to use features more known in the private sector. Some researchers even say that Finland has been very keen on implementing these (entrepreneurial ideas) ideas coming from transnational agents such as the EU or OECD. (Saarinen & Ala-Vähälä (2007).)

The rector

Early on in my research I identified the rector's role as very complex and in many ways challenging. My focus was almost immediately directed towards the difficulty to serve both the organization with all the co-workers and the surrounding society at once (see Höög & Johansson (2011): they talk about the importance of the relations both outside and inside the educational institution). Both internally and externally the rector is put under much pressure and he/she has many expectations to live up to. Thus I see the rector as continuously acting in a field of tension and at the same time being part of a field or arena of tension.

Figure 1. Arena of tension.



The figure above illustrates the rector in his/hers context and surrounded and acting in an arena of tension. This is a construct made by the researcher and the division of the arena is probably not something that the rector is actively aware of in his role as the HEI rector. The arenas are also intertwined and both are influencing the rector's actions.

A postmodern leadership discourse

We need postmodern leadership discourses that better supports the people in new situations. (Juuti, 2003.) If one connects the leadership discourse to postmodern thinking one will have new interpretations because of the variation that is emphasized therein. It is a goal as such to provide several perspectives without holding one above the other (Juuti, 2001). If modern thinking wanted one explanation model and clear rules it was often one voice that came through and one explanation that was chosen. Postmodern thinking wants to explain leadership as phenomena in a fast changing and complex context. There is no one right way. This is the way I, as open-minded as possible, try to understand the HEI leadership of today in the material I work with.

The leadership theories of the postmodern era are not focusing on a hero-like-leadership theory (one-man-show) or on certain traits (Bolman & Deal (2005); Juuti (2001)). Bolman & Deal (2005) describe how different persons interpret what happen differently and that all organizations consist of people with their own understandings for what is happening (Bolman & Deal, 2005). This is seen as interesting especially in connection to how

the HEI leaders in their speeches discuss about what they see in the field. This will however also be studied more in future papers related to this research.

Research design and Method

In my research I use Discourse Analysis (DA) as my main methodological and theoretical approach. This approach is well suited for the kind of material and topic I have. DA is a qualitative method or methodology and interdisciplinary method and theory that have developed out of linguistic and social and behavioral sciences. Potter & Wetherell (1987) do however describe the DA as a theoretical perspective where both theory and method are equally relevant. My discourse analytic perspective is influenced by discursive psychology (Potter & Wetherell). This perspective is well-suited when examining power- and management relations. It is also well-suited for studying written, naturally occurring material (i.e. the speeches) (Pietikäinen & Mäntynen (2009); Börjesson (2003)).

Discourse can here simply be explained as a way to talk about things, a way to understand the world (Pietikäinen & Mäntynen, 2009) or as a use of language as part of a social practice (Bergström & Boreaus, 2005). Furthermore Juuti (2004) explains leadership discourse as something that is created out of everyday stories and at the same time is changing these stories in the everyday life (Juuti, 2001).

The focus is on the rector's speech, *how* does he talk and about *what*. The focus is not on *why*. *What* is an important question to start with, since

without first working around what it is difficult to get to the *how* (Söreide, 2007). (*How*, though, is the crucial question in order to reach the subject positions and identity constructions when in my continued work.) In this paper, the first reporting, what is elaborated on and because of this the qualitative ways of working with categorization are emphasized. Categorization is often a first step in DA (Börjesson & Palmblad, 2007).

Material

The material consists of 63 written inauguration speeches between 2008–2010. An inauguration speech is here understood as the speech held by the rector in the beginning of the academic year. The speech is often held at campus, but can in some cases be held elsewhere.

The speeches are official documents and most are found online. I have included speeches of rectors and site-rectors. They are between 3–5 pages long.

The analysis

DA has no own methods or tools for analysis, but borrow these from other qualitative disciplines. Here inspiration has come from the discursive psychology as explained by Potter (1996). DA can also be seen as a variant of text analysis (Bergström & Boreus, 2005) and this can be seen in the way I work with categorization and content here as the first step of analyzing my material. Both content- and conversation analysis can be applied (Wetherell, Taylor & Yates, 2001) (I have used Excel and N'VIVO as a tool for analyzing the themes.)

My units of analysis are categories and subject positions constituted and formed throughout the talk by the help of themes which re-occur in a certain form. I will examine how the leader talks about different themes that re-occur and how these ways of talking about matters will identify possible subject positions of the rector, but here in this paper I focus on the themes. Who is speaking, about what and in which context, is not however irrelevant. It is the produced talk de-constructed and de-contextualized and then re-contextualized in the interpretive repertoires found in the speeches that is examined. The context and the language will together form the discourse.

Model for the analysis

I have been inspired by researchers such as Söreide (2007), Willman (2001) and Nordzell (in Börjesson & Palmblad, 2004) when constructing the discursive perspective.

The steps of analysis are built up around a model found in Willman (2001, 96) and the highlighted steps are dealt with in the paper:

1. **Macroanalysis: bigger contextual entities and themes are identified and an impression about possible subject positions and categories begin to occur. A first thought of possible interpretive repertoires can occur.**
2. **Microanalysis: A focused analysis of different categories and themes. A detailed analysis of the speeches and special attention is given to metaphors, subject positions, BUT and passive voice (passive tense form).**

3. Macroanalysis 2: interpretive repertoires occur as a result of the filtering and the categorization work in 1–2.
4. Extended macroanalysis: 1) A close study of the interpretive repertoires and a return to the context and the whole in order to find possible relations between the interpretive repertoires (inter-discursivity) 2) An analysis of the interpretive repertoires in relation to the theoretical framework. 3) Finalizing step of the analysis and conclusions (results): the interpretive repertoires are described, explained and discussed in the context.

What does the rector talk about in the inauguration speech?

Here I will first look separately at the readings and then go more into the themes that I found.

1st reading of the inauguration speeches

(overview): My first reading of the speeches was a reading to get an overall perspective of the material. I did this rather intensively only taking a few notes and underlining what I saw as typical or outstanding at the time.

My first thought was that the speeches seem to be very similar and then I thought that I will not have so much from this. However after a while I started to see many variations in the text. Different patterns occurred, but also clearly some topics that were heavily stressed and related to.

My first reading resulted in a initial (excel) version of my coding scheme. The 1st reading also gave me the initial ideas of the themes as well as of a

few categories that might occur during the coming categorization work.

2nd reading of the inauguration speeches

(overview): Having my coding scheme I began my 2nd reading. The main focus in my 2nd reading was to find (greater) themes and extract them from the text. It was a first attempt to deconstruct the text. The 2nd reading took a long time. It was a slow and focused reading where I returned to the text as a whole and its parts several times. I have been taking notes of both what was said (mentioned themes etc), clear and given in the text (underlining, receivers, headlines etc) and of the more implicit themes: the underlying themes, the indirect receiver etc. It is important to note both these aspects although my main focus will be on the more indirect and not so easy to see parts – how a rector places him/herself in the text and to whom he is turning in what role (as the rector, person, leader), with what tone and so on. The direct and given pieces (used words and underlinings) will make me remember the context in which the talk is produced, maintained, constructed and they form and maintain a discourse. The indirect talk will make a leadership discourse occur eventually in the form of interpretive repertoires which likewise forms and maintains a discourse.

In the 2nd reading I clustered themes (categories with larger themes) by reading over and over again and I did a more focused reading as well. The 2nd reading was a categorization work. Categories are constructed and build up in different ways in different situations and they can also apply a very different meaning in different contexts. This is sometimes mentioned in relation to the

indexicality (word and expressions are bound to a context). One can for example say the situation and the context are being formed and reformed in the situation and in the context. Categories are forming something in the interaction. This is called reflexivity. (See Nordzell in Börjesson & Palmblad, 2004.) When categorizing, I therefore needed to remind myself of the context as well.

The observations from the 2nd reading were analyzed, inserted and coded in N'VIVO and the first coding and the categories of themes complement each other.

Themes

My main results from the 2nd reading are the themes. Themes are important. They build the base for further analysis and for further categorization work which unfold subject positions and finally reveal interpretive repertoires. It was however relatively easy to identify themes in the 63 speeches included here. The difficult aspect is then to refine and focus on certain themes. In DA the research should not forget about what is not being said or left out for some reason (Bergström & Boreus, 2005).

Themes are what the rector talks about. Sometimes they are easy to identify and even given. Some speeches have underlined words or are very structured with headings. Sometimes the rector starts by identifying a few themes himself. He/she states: "I'm going to focus on this in my speech today...". Statements like these are not of course unusual. In other cases and which are actually more interesting is the themes not so easily observed and often

taken for granted. They are well intertwined in the text and sometimes they occur in several parts of the same text. The same theme can also be discussed from different angles in the same speech and sometimes even a contradiction in the way the rector is talking about the theme occurs in the deconstruction of the speech.

I have identified themes in two ways:

a) Explicit themes: Heading, -sub-titles, underlined words, sentences and given (outspoken) themes. This is the direct theme identification as I here call it.

The given themes are easy to identify and they are often themes that keep re-occurring throughout the material and also re-occurring within the same material. They are often topics that the speaker wants to put forward and want people to pay attention to. The first way of identifying themes falls back in what the speaker (the rector) points out by saying things out loud or by highlighting them in the written text. Nordzell (2004) writes about the topics that the speaker points out him/herself and how dealing with these requires a participant oriented approach (Nordzell, 2004, in Palmblad et al 2004). Here I found 31 headings and 21 subtitles.

b) Implicit themes: Throughout the text re-occurring themes and topics (not clear, used or given by the rector but through my categorization work). This is indirect and more implicit theme identification and more demanding and time consuming.

This way of identifying themes is very reliant on what I as a researcher see reoccurring in the writ-

ten text (the speech) – I identify these themes. These themes require systematic and focused reading in order to be identified and they are presented below as the themes.

Figure 2. The themes identified (not any in hierarchical order).

THEMES

regional cooperation
internationalization
the role and the task of the HEI
culture
strategy and vision
the university reform
restructuring
ranking and evaluation
finances and funding
leadership
campus development and life
pedagogical development
sustainability
history
research
proliferation and specialisation
goal and result discussions
interdisciplinarity
effectiveness
surrounding society
students
the passed year: result etc
accountability and freedom
language questions
politics

My analysis led me to 25 clustered themes. Among these the following themes were most frequently used:

Another theme that is of interest is Leadership. Here the rector talks about leadership and how it is changing. This talk is much related to the new law.

"You cannot often enough stress the role of the board in the future university. It sets the overall goals regarding the HEIs actions and economy, it draws strategic lines as well as gives the guidelines for what actions can be taken. It approves of the negotiated contract with the Ministry of Education. It also elects and dismisses the rector if necessary. The rector is not a member of the board, but a referendary, who on the other hand sits on a great deal of designation power and power to act. Taken all together one can see how the operational and individual leadership is enhanced at all levels of management. The change to what we have had is enormous." (20)

The theme Strategy and vision includes talk about the mission and continuous negotiations with the Ministry of Education and Culture. Culture and values are occurring here. Another aspect that is touched upon is how the strategy work is or was done.

The theme Culture (and values) is one dealing with both institutional culture and the culture in the context.

The Role and task theme include talk about both the institutional role and task as well as the role given by the Ministry. Within the internationalization theme one talks about globalization, competition, export of education, integration of students from other countries, networking. Attitudes regarding these arise.

One can also see that the headings and subtitles are connected to the themes. For example:

Figure 3. Main themes with extracts.

Theme	Extract 1	Extract2
Regional cooperation	If the leading companies do not find qualitatively good enough partners among the Finnish universities especially in the fields of...then they will look for partners from the international universities. You do not need to be a forseeer to understand what happens to the Finnish knowledge, entrepreneurship, work opportunities and wellbeing in this case." (10)	"In order to fulfil the societal task the HEI need to maintain and develop a broad network of contacts." (39)
The role and the task of the HEI	"I see as a national project with an important mission in helping to implement the national reform of the education..." (46)	"...according to the mission of the university of applied sciences our task is to act as an internationally orientated institution that offers higher education and is involved in the development work that increases the region's knowledge-base in the working life and its competitiveness." (9)
Internationalization	"A rapidly changing international surrounding requires that changes are recognized in the learning processes as well. The teaching and learning has to live up to tomorrow's needs."(13)	"The competition on the international education market requires that the internal management mechanisms allows the HEI within the frames of the strategy to have a strong role in the decision making when it comes to economical and academic questions." (10)
Culture	A spirit where willingness to create something new and at the same time a positive spirit has been present among many in the staff as well as among the students. Hopefully this positive spirit will carry our whole higher education society in the future as well. " (15)	The future will show us if an American minded culture, where especially private and corporate funding of HEIs will be the major part of the funding within the HEIs." (18)
Strategy and vision	We have this time decided to have an online strategy discussion. Everyone can who want to can familiarize themselves with the online draft material and comment on it. (26)	"The HEI is an up to date and international HEI where students and teachers succeed together." (31)
The university reform	"The separation from the role as the State's accountable unit (<i>tillivirasto</i> in Finnish) gave the autonomy to the universities, but the independence is never unidirectional but brings also some more responsibility and some obligations..." (26)	"The new university law does two things, it brings to surface and/or makes one think about the principles within the Finnish society of which the most important one maybe was the self-management or the question of autonomy..." (35)

HEI is here replacing the words university or university of applied sciences

Openness increases the position of as global competition – Theme Internationalization. *We have to find the fun in doing things together* – Theme (working) Culture. *The top universities societal responsibility* – Theme The task and the role. *The long road to the university reform* and *The university law speeds up the Finnish success* – Theme The University reform. *Reaching for 2010 – autonomy and consolidation* – Theme Consolidation and specialization

The inauguration speeches were from the years 2008–2010 and during this short interval I could not find a difference in the themes that were raised and discussed. I have observed how the theme varies when the language within the same talk changes. (Many rectors switch between Finnish, Swedish and English). What caught my attention was that the tone and the theme were more positive when the English language was used.

Discussion and conclusion

The analysis done so far, after 2 readings and first coding in N'VIVO was here reported as themes. It has been useful to examine what the rectors talk about and after this categorization and analysis it seems as if the speech has a clear informative function.

The major themes have very much to do with the outer arenas of tension (figure 1) and they show

the importance of the changes in the context since they are so often discussed. When I look at the theories touched upon in the introductory parts I can see that the talk is very much circling around what happens in the context (outer arena). The theme Culture is however a theme often connected more concretely to the inner arena in these speeches. Institutional culture as a tool is important for leaders generally speaking and one can understand that this is something that is talked about by the rectors because of this.

I still need to go more in depth here to be able to see how the topics are presented: how is the positioning around them? It is clear that the views on the new university act are dividing the rectors into separate groups.

The main conclusion here is that the speeches fill an informative function and that the main themes are internationalization, the university law, consolidation and specialization, the task and role of the university, regional cooperation and culture.

The themes found form the base for my future view on the variations within the themes in order to find subject positions etc. WHAT is needed in order to reach to the discursive HOW: How the HEI leadership is constituted constructed and maintained. In future reporting I will also combine findings from the speeches with those from interviews with HEI rectors during 2011. ●

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CHAPTER V**REGIONAL POLICY AND HIGHER EDUCATION
THE CASE OF NORTHERN NORWAY****Rómulo Pinheiro**

In the Nordic context, regional dimensions have long played an important role in policy making processes spanning across a multiplicity of sectors and policy arenas. This chapter sheds light on the convergence between regional policy and higher education policy by illustrating recent developments from Norway, with a particular emphasis on the Northern most parts of the country. Following the conceptual section, there is an analysis of the interplay between regional policy and higher education. This is followed by a description of a recent government-led strategic initiative focusing on knowledge structures in the North. The next section examines how the regional higher education sector, most notably the largest comprehensive research-intensive university in the area, has strategically responded to disruptive changes in the operational and regulatory environments in order to carve a central role in the new strategic/policy framework. The chapter concludes with brief reflections on the key findings as far as regional and higher education policy is concerned.

Keywords: *Higher education, steering, regional policy, research profile*

Conceptual backdrop***Regional policy***

The literature refers to regional policy as deliberate actions on the part of governments, federal and/or state-level, to alter the spatial distribution of economic and social phenomena (Hansen, Higgins, & Savoie, 1990, p. 2). This encompasses such

dimensions as population, income, government revenues, production of goods/services, transport facilities, social infrastructure, and even political power. Definitions such as the one provided above cast light on the fact that regional includes a wide variety of aspects, moving beyond local-development or planning to accommodate broader policy-related dimensions associated with trade, energy, security, and science policy. This, in turn,

has led scholars such as Higgins and Savoie (1997, p. 342) to argue that, in essence, “regional policy and planning are a major part of national policy and planning.” In more concrete terms, regional policy can be conceived as an instrument or tool used by national governments to implement and control the regional programme from the outside, “together with, without, or against the regional actor” (Schimtt-Egner, 2002, p. 186). In other words, from the perspective of policy makers, the region is a *de facto* policy-unit.

Up to the early 90s regional policy, in Europe and elsewhere, followed the old regionalism tradition by allocating a central place to the state bureaucracy as the major planner of regionally-related activities (i.e. policy interventions), particularly when it relates to social and economic aspects. Starting in the mid-90s, and as a means of responding to a broad set of new developments – economic, technological, political and cultural – regional policy gradually shifted emphasis towards greater decentralisation (devolution of authority). This aimed, first and foremost, at fostering horizontal integration and problem-solving (Keating & Loughlin, 1997). In recent years, the rationale or logic behind regional policies across a multiplicity of national contexts pertain to the development of local institutional capacity (political, economic and cultural), with special attention given to strategic planning (Leknes, 2008). Institutional capacity building is seen as crucial for the rise of networks of co-operation (partnerships) within and beyond the geographic scope of the region. In turn, network building is considered an essential element for the success of the regional programme (Schmitt-Egner, 2002), both given its centrality when it comes to

fostering social capital, i.e. trusty relations amongst actors, but also due to the presence of so-called ‘untraded interdependencies’ (Storper, 1995).

In a nutshell, whereas older regional policy paradigms placed a strong emphasis on the development of physical infrastructure (Rietveld, 1989), more recent approaches tend to focus on key aspects intrinsically related to institutional capacity building, namely: education and training, research and development (R&D), and technology transfers (OECD, 2007, 2010). This means that, from the perspective of national policy-makers and regional-planners, the key actors involved in devising and implementing the regional development programme consist of local government agencies, industry, higher education institutions, and other knowledge-based entities belonging to (or embedded in) the regional system.

According to Hansen et al. (1990, p. 281), “regional policies reflect a mutual interaction between the socioeconomic evolution of a nation and the prevailing economic and social philosophy of the time.” In Europe the historical linkages between higher education and regional policy go back to the late 50s/early 60s, largely as a result of the impetus in society for broadening access, geographically speaking, to higher education (Pinheiro, Charles, & Jones, 2013). During this period, governments used two types of policy mechanisms. The first consisted of the establishment of new higher education institutions in relatively peripheral regions, known in the literature as pertaining to the phenomenon of geographical decentralization (Kyvik, 2009). The second mechanism was to mandate a particular task (regional mission) to spe-

cific types of academic establishments – regional universities or colleges – in the form of institutional decentralization (ibid.).

Learning and innovative regions

The rise of an increasingly globalized and networked-based society/economy (Castells, 2010), has, amongst other aspects, meant that regions are gradually becoming focal points for knowledge creation and learning. Learning regions (Florida, 1995) are, therefore, conceived as both collectors and repositories of knowledge structures and ideas which provide the underlying environment or infrastructure for knowledge flows and learning to occur. Scholars have suggested that the notion of a learning-region “provides a dynamic framework which affords an opportunity to capture direct and indirect impacts in the regional economy.” (Keane & Allison, 1999, p. 901) Two key aspects pertain to the importance attributed to collective learning processes (social networks), and the presence of social and economic institutions (e.g., local government, industry, universities), what Keeble, Lawson, Moore, and Wilkinson (1999) refer to as ‘institutional thickness’. Following this line of thought, it is argued that the size, nature and capability of local institutions and resources, combined with formal and informal network arrangements are critical factors in determining a region’s ability to process, generate and diffuse scientific knowledge and innovations – a process known as local ‘absorptive capacity’ (Vang & Asheim, 2006).

Social scientists have, on numerous occasions, pointed to the interplay between learning regions,

local economic development, and higher education, while arguing that the regional value of universities is part and parcel of both the linkages and degree of embeddedness in the local economy (Keane & Allison, 1999; Stachowiak, Pinheiro, Sedini, & Vaatovaara, 2013). The contribution of higher education institutions, particularly research-intensive universities, to the development of regional innovation systems has received considerable policy and scholarly attention in recent years (Gunasekara, 2006b; Lester & Sotarauta, 2007). The primary policy mechanism through which this has been achieved is by leveraging the collaboration between universities and regional public and private sectors (Etzkowitz & Leydesdorff, 2000). There is increasing evidence of the institutionalization of such types of initiatives across geographic scales, e.g. within the Nordic region (Gulbrandsen & Nerdrum, 2009; Srinivas & Viljamaa, 2007).

Regional policy and higher education in Norway

In Norway, regionalization has been at the forefront of governmental policy since the post-W/WII period. Under the label of district policy (distriktpolitikk), regional policy has traditionally been conceived as a central government-led endeavor aimed at the spatial distribution of resources (e.g. people, funding, institutions) instead of a mechanism for promoting regional autonomy (devolution) per se (Stensaker et al., 2005, p. 39). In other words, historically, Norway’s regionalization policy can best be characterized by a ‘top-down’ orientation and a rather paternalistic attitude (by central government agencies) towards the various domestic administrative regions (currently 19). Unsurpris-

ingly, the traditional relationship between center (government) and periphery (regions) has been based on a mutual lack of trust. Contrary to what has happened in other countries, policy frameworks aimed at promoting regional autonomy (regionalization) are a relatively late development in Norway, dating back to the 1970s.

It is worth considering, briefly, historical developments or path-dependencies. Regional policy in the post-WWII period – lasting from 1945 to 1960 – focused almost entirely on capacity building (physical and social infrastructures), following traditional welfare (Keynesian) economics with special attention given to the Northern-most parts of the country (Foss, Onsager, Bukve, Selstad, & Ørbeck, 2004, p. 112). The following period (1960–1975) was marked by a general optimism – in Norway and elsewhere – with respect to regional planning, resulting in the successful institutionalization of regional policy on the one hand, and the establishment of regions as separate policy spheres on the other. In the realm of higher education, nationwide policy-related developments culminated in the establishment, in the late 60s, of a regional college system throughout the country. The regional colleges were given the explicit task or mission for catering to the human resource needs of their geographic surroundings (Kyvik, 1981, 2009). The creation of a regional higher education system was a direct consequence of infusing regional policy into the government's educational policy (Bleiklie et al., 2000, p. 92).

During the 60s and 70s, the establishment of regional colleges across the country became the symbol of the new policy direction for the higher

education sector (Aamodt 1995, p. 65). However, this phenomenon led to new tensions and volitions (see Pinheiro, Benneworth, & Jones, 2012), particularly amongst the more established universities. More concretely, “regionalism became a powerful political argument in higher educational policy, and contributed to a political climate that put the [existing] universities [i.e. Oslo and Bergen] at a disadvantage.” (Bleiklie, Høstaker, & Vabø, 2000, p. 74) In the spirit of devolution, the central government delegated the coordination of activities to regional councils of higher education, and provided local colleges with considerable administrative autonomy in the development of their own institutional (regional) profiles. Together with a number of regional research foundations mainly focused on the applied sciences, two comprehensive universities in the central and Northern parts of the country were also established in the early 70s (Pinheiro, 2012).

The majority of newly established higher education institutions in the past four decades have had explicit regional policy objectives alongside the traditional educational mission (Stensaker et al., 2005, p. 40). Policy developments in the early 2000s (Quality Reform) have had clear implications with respect to the patterns of regional collaboration between academic institutions and various external stakeholders, such as industry, government, and civil society. The conditions under which domestic higher education institutions operate became increasingly complex, partly as a result of fiercer competition for students (national and regional), research funding, and scientific staff, as well as renewed calls by policy makers for strengthening inter-institutional cooperation and

the development of distinct institutional profiles (NOU, 2008), in addition to a reconfiguration of the domestic higher education landscape due to mergers involving both universities and university colleges.

In the last decade alone, regional development has been a key item on the higher education policy agenda (Pinheiro, 2012). This has materialized around the desire for the establishment of study programs better aligned with the needs of the local economy on the basis of a closer cooperation between academics and various external actors like regional industry (Stensaker et al., 2005, p. 41). That said, as is often the case, there are nonetheless slight variations in the policy emphasis attributed to national and sub-national dimensions.

"[...] throughout the last 30 years, *national* policies have focused on enhancing the economic and cultural role of higher institutions in their respective regions. *County level* policy initiatives are increasingly more engaged in the shaping of regional innovation systems including the higher education institutions, which are perceived as key institutions for the economic, social and cultural development of regions." (Stensaker et al., 2005, p. 40; emphasis added)

Similarly, as is the case in other Nordic countries (Hölttä, 2000; Nilsson, 2006), variations exist in the specific roles undertaken by different types of higher education providers, as indicated in a 2006 OECD review of Norwegian higher education: "The recent changes at national level emphasise, on the one hand, the universities' responsibility for national and international excellence, and, on the

other hand, university colleges' responsiveness to the local and regional needs." (Sotarauta, Dubarle, Gulbrandsen, & Nauwelaers, 2006, p. 7)

Norway's 'High North Strategy'

In 2006 a rather bold governmental policy effort, led by Norway's Ministry of Foreign Affairs and known as the 'High North Strategy' (MoFa, 2006, 2009), was launched. As a policy platform, it spans across a broad portfolio of strategic areas; foreign policy, knowledge generation and competence building, environment, indigenous people, marine resources, transportation, business development, and oil exploration. No fewer than 14 Ministries are directly involved with the strategy. Although Northern Norway is its primary focus, the scope of the new policy/strategic framework moves beyond national borders to include the trans-national domains of the Arctic and Barents Sea, covering an area of more than 30 million square kilometers and about 4 million inhabitants across 24 time zones. Internationally, the strategy builds on existing supra-national policy structures such as the Nordic- and the Arctic- Councils as well as the EU. Key partners include all those countries actively involved with Northern-related issues on a global scale. In addition to neighboring countries (Nordics plus Russia), the U.S.A, Canada and the EU have been identified as strategic partners. Skills and knowledge play a central role. According to the architects of the strategy:

"As a nation, we need more knowledge in order to fully seize the opportunities ahead and meet the challenges we are facing in the High North [...] Education, competence and knowledge will pro-

vide the key to realising the opportunities in the High North." (MoFa, 2006, p.23)

A concrete strategic measure aimed at strengthening the knowledge-based infrastructure across Northern Norway includes, but is not limited to, the establishment of a leading, international center for environmental and climate research in the High North. It aims at fostering collaboration amongst existing scientific institutions in/around the city of Tromsø, making the city-region the focal point for global knowledge and expertise on environmental-related issues (MoFa, 2009). A new set of funding instruments (NOK 500 million over a decade) designed to stimulate knowledge generation across a wide variety of key areas – marine life, petroleum exploration, the environment, climate and polar research, and international cooperation – have also been made available via the Research Council.

In addition to a comprehensive action plan aimed at promoting a culture of entrepreneurship, the strategy addresses the need for critical improvements in the existing knowledge- and technological- infrastructures. Special attention is attributed to the higher education sector in the context of knowledge transfers and the regional innovation system (cf. Nilsson, 2006).

"The drivers of the knowledge building system will be a knowledge-based business sector, research institutions and administrative bodies, and universities and university colleges. It is important that all of these cooperate effectively to ensure local ownership and the strongest possible support for these measures in the north [...] It is essential that

the knowledge institutions in the region are competitive, both nationally and internationally [...] It is of great importance to promote the formation of networks and division of labor between higher education institutions in the north, as elsewhere." (MoFa, 2009, pp. 31–2)

Tighter cooperation amongst regional higher education providers on the one hand, and between these and other knowledge actors located in the region, is driven by the policy desire to enhance system-level coordination and the development of local centers of expertise in Northern-related issues. The latter are expected to act as magnets for recruiting and retaining young talent and renowned scientists. The strategy also emphasizes the need for safeguarding the cultures and livelihood of indigenous people located throughout the region. Stronger collaborations between the existing regional centers of expertise – the University Tromsø (UiT), Sami University College and Finnmark University College (since 2013 part of the University of Tromsø), are highly desired.

The above strategic platform represents a fundamental shift in regionalisation policy in the Norwegian context. Contrary to what was the case in the recent past, where local actors were seen as implementers of the policies devised by central government agencies, regional actors have played a much more active (instrumental) role in terms of problem-assessment and in help defining policy goals and their respective instruments. As a process, this effort was aided by an advisory committee, led by UiT's former Rector (2002–2013), composed of various regional actors across public and private sectors. This committee acted both as a forum for

regular interaction (trust- and consensus- building) and as an important platform for the sharing of expectations and ideas amongst local actors and national government. This is in sharp contrast with past initiatives, where, for the most part, local (municipality) and regional (county) government structures played a much more re-active (passive) role.

The Arctic University of Norway

The University of Tromsø (UiT) was established by Parliament in the late 60s, and officially opened by King Olav V in 1972. Its original vision was to become a first-rank national, research-based comprehensive establishment characterized by a distinct institutional profile and organizational identity (Arbo & Eskelinen, 2003; Pinheiro, 2012), instead of a traditional local institution similar to the existing regional colleges (cf. Kyvik, 1981). Three aspects were thought critical in this respect. First, a strong democratic orientation – with respect to the role of students and non-academic staff – in matters pertaining to internal governance; second, an inter-disciplinary and problem-solving approach geared towards integrating theory and praxis; and third, a focus on the needs of the surrounding region, built around a strong service-orientation. In other words, the goal was for UiT to become a modern and innovative university which not only combined a variety of subject-areas – medicine, social sciences, marine biology, and arctic research – but was also able to strike a balance between scientific excellence and global relevance (Pinheiro, 2013). A major policy goal was that the bulk of UiT's student population would originate from within Northern Norway.

Over the years the university grew in terms of staff, students and programmatic offerings, and, somewhat ironically but not surprisingly, came to resemble more and more the traditional internal structures and governance systems from the more classic university establishments located in Oslo and Bergen. For example, the initial organizational model based on large departments was gradually abandoned, towards that of traditional faculties with relatively clear demarcations across knowledge fields. Initial negative reactions, by students and staff, towards rising capitalistic tendencies in Norwegian society and collaboration with industry resulted in the labeling (80s and early 90s) of UiT as the "red university" (Arbo & Eskelinen, 2003). Despite the good intentions of some engaged academics and administrators, regional actors became increasingly disappointed with the fact that the university was relatively oblivious to the challenges and problems facing the region, thus somewhat resembling an 'ivory-tower' (Hölttä, 2000). This situation started to change in the late 90s, when a series of new strategic efforts came to the fore. These included the establishment of centers for Sami- and Arctic- related issues, in addition to a central unit dedicated to continuing education and regional outreach.

By the turn of the new millennium, and under the auspices of a new central administration led by the former rector, a new strategic impetus came to the fore. Due to historical rivalries with the city of Bodø, the economic hub of Nordland County, and the ambitions of the local university college at Bodø to become a fully-fledged university (realized in 2011), the vision of UiT's Rector to create a unified university for the entire North of the

country collapsed. As a result, and anticipating the profound changes facing the domestic higher education landscape (NOU, 2008), UiT's board decided, in a first phase, to complete the merger or amalgamation with the local university-college at Tromsø (effective since 2009), and, in a second phase, merge the then amalgamated (new) UiT with the local university-college serving the county of Finnmark. Located in the northeastern part of Norway, the latter hosts about 74 000 inhabitants and has borders with Troms county to the west, Finland to the south, and Russia to the east. It is surrounded by the Norwegian Sea, thus being placed in a key geo-strategic location.

The new UiT, the fourth largest educational institution in the country, employs 2,700 staff, and enrolls around 12,000 students across seven faculties, of which three – natural sciences & technology, humanities, social science & education, and health sciences – enroll the bulk of the student population. Previously stand-alone outreach-based units under the auspices of the university's board – like the Sami center, women studies, and the Barents institute – are now an integral part of academic/faculty structures, thus signaling the strategic intention of bringing regional dimensions closer to core activities (see Pinheiro, 2012). As far as institutional capacity is concerned, it is also of significance that UiT's central steering core (Clark, 1998) almost doubled in size following the mergers. According to UiT's former rector, the architect behind the amalgamation process, "size does matter" (Pinheiro 2012). Accordingly, the new, strengthened institution is now in a position to act as the *de facto* knowledge hub for the vast, transnational high north area.

Structurally speaking, there have been reinforced efforts across the board to link more closely -different tasks and types of activities. A good example is the recently created national centers for research-based innovation (SFIs) around the fast growing fields of Telemedicine and Marine Bioprospecting. The research endeavors of these strategic units are directly connected to the geographic characteristics of the region, i.e. remote districts and direct access to the North Sea, as well as the strategic research agendas of academic groups across the the natural sciences, medicine, and ICT. As far as teaching goes, recent initiatives include the establishment of international graduate degree programs in the fields of Indigenous Studies, and Business Creation and Entrepreneurship. The latter in particular is tightly-coupled with more peripheral or outreach units with the responsibility for technology transfers and innovation (see Pinheiro 2012), in addition to national policy efforts for nurturing a vibrant regional innovation system. The importance attributed to the High North agenda, not least when it comes to gaining access to additional pools of financial resources, seems to have brought inter-disciplinary collaborations in the realm of teaching, research and third mission (service to society) to the forefront of UiT's strategic efforts at the central and unit levels alike.

Conclusion

Within the Nordic countries, Norway is a compelling example of the convergence between regional- and higher education- policy, culminating in governmental- as well as institutionally- led strategic efforts geared towards the regionaliza-

tion of higher education. The recent focus on the High North represents a paradigm shift in regionalization policy due to the levels of delegation or decentralization, thus bringing regional actors and institutions to the forefront of the so-called policy making process (Gornitzka, Kogan, & Amaral, 2005). By taking bold, pro-active actions both within the region and across the organizational field of higher education as a whole, the leadership structures at UiT have successfully re-interpreted the university's original regional mandate in the light of internal academic aspirations, the needs and expectations of local stakeholders across public and private sectors, as well as the unique opportunities brought by a comprehensive national policy framework centred on the High North. By re-positing itself as the de facto transnational knowledge hub for the enlarged (Arctic and

Barents Sea) region, UiT not only has strengthened its institutional profile as *the* research-intensive university in Northern Norway, but, more importantly, joined the growing number of locally-embedded universities with a global profile (OECD, 2007). Yet, at this stage, it remains to be seen to what extent the new institution will be able to live up to the high aspirations it has helped create, including becoming the focal point (see Gunasekara, 2006a) for knowledge-based development within the High North area in years to come.

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CHAPTER VI**GENDER AND THE MANAGERIAL TURN IN HIGHER EDUCATION: ACCOUNTS FROM FEMALE ACADEMICS IN ENGLAND AND SWEDEN****Elisabeth Berg, Jim Barry, and John Chandler**

This paper examines the consequences of the turn to managerialism in higher education in England and Sweden, following the introduction of New Public Management reforms. The paper considers some of the gender implications, which are explored through the accounts of eight, long-serving, female academics. The first interviews were conducted in 2001 with two female academics in Sweden and two in England, and followed up ten years later in 2011–2012 with four new interviewees, all long-serving female academics. The same interview questions were used at both occasions. While there were differences between the two countries, there was also much similarity. In 2001 respondents generally presented a negative picture of the reforms and highlighted the problems of adjusting to them. Ten years later there seemed to be more accommodation to the reforms. And yet the gendered implications of this are significant: women academics are clearly finding it difficult to pursue research to the extent that they would wish, while they are taking on many teaching and administrative functions.

Keywords: *Gender, management, Academe, Sweden and England*

Introduction

In this paper we examine the working lives and careers of women academics in the context of universities experiencing managerialist reform. There is consensus that public management reforms have affected a number of OECD countries, although the reforms have been implemented at different

times and in different ways (Pollitt and Bouchaert 2004). Both England and Sweden have implemented these reforms and are regarded as being two of the countries that are in the forefront of this managerial reform movement for change (Hood et al 1999: 189–190). However, research have shown that implementation of reforms can take between 5–10 years before they are settled in an organisa-

tion and they have also during that time to be adjusted for the special circumstances of specific organization (Forsell 1994). It is therefore of interest to consider the consequences of such reforms for employees and their gendered impact over a period of time.

Previous research has highlighted that with the new reforms there has been a reduction of the professionals' autonomy (Dent, Barry and Chandler 2004) and a number of studies have highlighted how such reforms have affected universities (see Farnham 1999, Barry, Chandler and Clark 2001 and Chandler, Barry and Clark 2002 for England; and Askling 1999 and Berg 2000 for Sweden). There have been warnings of the dangers of McDonaldisation of the Academy (Parker and Jary 1995) while other studies have focused on gendered implications (cf. Fogelberg et al 1999; Thomas and Davies 2002).

In this paper we examine data from interviews with four female academics conducted in 2001 and a different four female academics interviewed ten years later in 2011/2012. It was impossible to interview the same individuals in the later period as the original four academics had left their Universities in Sweden and England for a variety of reasons. However, the circumstances for those women interviewed later are the same as for ten years ago – they are all in middle management positions and have experienced the implementation of New Public Management reforms. Obviously the fact that we interviewed four different women means that this is not strictly a longitudinal study, but we tried to match individuals as closely as possible, taking into account age, position and the same

Universities, hoping that this would give some indication of the continuities or changes occurring over time.

The interviewees are long-serving members of the academic profession, with considerable experience of academe of between 15–25 years. The intention is to use their experience to understand how gendered processes take place, through their eyes; to examine the effects of reform on work and career, exploring opportunities as well as difficulties for female academics in two European countries recognized as having embraced managerial reforms. In providing an account and interpretation of these women's views we follow Berger and Luckman's (1967) social constructionism, where people socially construct their reality in light of and in interaction with the context in which they work.

We have deliberately chosen women rather than men and women for this chapter. Our assumption (see also Butler 1990) is that women are a group with common characteristics and interests, and we focus on them because we believe that the analysis can provide important insights. Keeping women as a category is to politicize 'the subject for whom political representation is pursued' (op cit:3).

Intensification, Gender and Academe

It is well-recognised that men still dominate the higher positions in universities, especially as Professors, readers and assistant Professors, in both England and Sweden. Women have struggled to gain access to the research arena, where they are seen as an antithesis of the ideal researcher (Peixoto and

Wyndhamn 2011). There are many reasons for this inequality, including historical, social, political and gender issues, but research shows that these issues have been similar in both England and Sweden (cf Davies and Holloway, 1995: 13–16; Berg, 2001).

It is to the accounts of interviews that we now turn.

We name the women Barbara, Susan, Eve and Robyn from England and Birgit, Anna, Ulla and Lena from Sweden, in order to protect their confidentiality. We do not claim that they are representative of female academics, the very nature of the qualitative approach precluding this. We start with the interviews from 2001.

2001 Interviews

- *Barbara: the Academic Reviewer*

The first interview reported here is Barbara who was a female Reader with over twenty years' experience of working in English universities,

I must admit that over the last couple of years I haven't done much [research] and this has been with the agreement of the head of department, because he asked me to take on responsibility for other things. I'm setting up a departmental teaching and learning committee.

She enjoyed her work, but she had found it becoming harder in recent years, with the rewards of working in academe less and less clear,

I don't know why anyone comes into academic life anymore because the salaries are appalling now. And we have more students and fewer resources.

The stress level has definitely gone up. I don't think the hours of work have gone up, but you are working at different things. I mean the percentage of your time spent on administrative non-face-to-face and non-research activities has gone up tremendously. So everyone has less time to do his or her research.

She was concerned at the damage this was doing to others commenting,

[W]e've had someone who had a stroke and severe ulcers. We have had a couple of staff who have just left. They told us that they left partly because of the stress of the job here ... You feel you never get thanked for anything you do; everything is taken for granted, you only get blamed when something doesn't go how people want. It can be stressful and a bit lonely at times because you are slightly kept at a distance.

She viewed the managerial changes largely unfavorably but did not want to leave her job, yet.

- *Susan: The Mentor-Researcher*

Susan had worked in the same English university for over twenty years. Her post as Reader was primarily a research post but which also carried other responsibilities. She undertook a little research but spent most of her time teaching. She saw herself as an experienced teacher who retained an identity of researcher,

But the researchers wonder why the teachers are not interested in conducting research and think that they are too busy just doing their teaching. ... This is very much a gender divide: the men tend

not to end up with these kinds of jobs. The women tend to end up in these managing and supporting student roles and can never get on with their own research.

This was exacerbated by the introduction of peer review of teaching or subject review, the preparation for which was seen as excessively time-consuming,

It was assumed by my head of department that I would do a lot of the organizing for the subject review. I did start to do some, and then I found it just impossible to manage. ... He said 'what can we do to help you with your problem?' but it isn't my problem; the subject review is a departmental problem.

In this quote Susan shows that an organizational problem had become individualized and passed on to her though she points out it is not her problem,

I think they just put pressure on you and assume you will do it. If I then had a collapse and a nervous breakdown or something, he [the Head of Department] would have to do something. ... The only thing that works is an informal network: a colleague will say 'you look very stressed. Is there anything I can do.' And it's usually a woman.

Susan points out the strain and pressure from the organization but also that there is no support from the organization, at least not formalized,

In the morning I always take the dog up the woods for a walk. I'm a bit poorly at the moment. ... I've

been on some stress management courses and things like that. I just try to set boundaries and I just say no to things. ... I've got to have a life outside of this, you know.

Both these two interviews from the English academics indicate two women who are working under lot of strain. They relate to the changes in a negative way and have problems in coping with the changes.

- *Birgit: The Impersonal Administrator?*

Birgit joined the university after working as a teacher in upper secondary school. Her present post was as a field leader. She had also done some research, but found she had less and less time because the administration of timetables and managing colleagues had taken over,

the work is more, it's not so different [there's just] more of it ... in teaching you must have more classes, more teaching and administration, there's much more to do ... my work is very much administration and 50% education [teaching] ... research is important, not for me but for some of my teachers.

Birgit had problems to cope with the changes. There was less time for administration, class preparation time, students and research. The students had access to her through e-mail, instead of face-to-face meetings,

[W]hen you have students here you can talk to them ... you ... [should] ... be available [though] sometimes I'm not here [but with my e-mails] they expect that they should have an answer ... you are

expected to reply in one or two days. I can take [the e-mails] at home but I don't do that.

She had been asked to undertake additional work as a field leader that had given her problems with her private life,

I should not have this job, I was satisfied with only teaching and then they asked me if I could [assume extra responsibilities] for two months, then it was three months, then six months and now it has been a year ... I have coped with it because the teachers have said that they like that I have this job ... that's why I go on ... I hope [it will change] after Christmas ... it must be changed, I can't be on this job, I am too old to work so much as I do just now ...

Birgit showed with this quote that the management job gave her discomfort and put a lot of strain on her work situation. She was quite happy to work as a teacher but was forced into a new situation and position with middle management responsibilities that did not suit her.

- *Lena: the Teacher-Professor*

The second interview was with Lena from Sweden, a Professor in statistics, who explained that the work situation had been quite heavy. She started at the University as a PhD student,

[I have been here about fifteen years and have seen] big changes. I started on a [research] project which was financed for five years. ... nowadays we have to apply for new money each year and you have to write new project plans, you have to make new applications ... it's an incredible increase in the time that we spend.

Lena explained that her field was statistics and elaborated on the reasons for her increasing difficulty in finding time to complete applications for research funding. One reason was a large increase in the number of students in recent years. This was something she considered to have quite radical implications in respect of teaching and learning strategies for the growing student body. Because she did not have research money she was forced to teach which had an impact on her research activity,

I would like to have at least one third for the research, at least, but when you have a lot of things to do there are so many starts and stops, starts and stops, so you have to keep it together in larger blocks, to have a whole week with research. I would like to have larger blocks. I have had it before ... you write a paper, go to a conference, get in touch with other researchers ... you can see the development.

She was still doing research but much less than she wanted because of a heavy teaching workload and the lack of funding.

The impact of academic work on Lena's private life was beginning to tell. Lena was still a Professor and found some time for research- but she saw it as increasingly constrained. If Lena benefited from her position as a Professor and was still keeping up with her research, Birgit's work situation had changed more radically when she took on management tasks.

Interviews ten years later

English Interviews

- *Eve – principal lecturer*

Eve was a Principal Lecturer and had over 15 years' experience of working in English universities. She had been on the management team, for about 75% of her time over the previous seven years. She worked as a teacher, researcher and also undertook administration,

It is quite gendered; women are more in teaching and admin and men in more involved in research and research activities and teaching. The research commitments are an only-men activity. Teaching and research are related to each other, I need the research to do good quality teaching.

When asked the question about how she experienced the focus on finance and cutbacks in the University, she pointed out the importance of using her skill in a resourceful way,

Everything is very confusing, the senior management are meeting the goal for the University rather than the individual. ... the quality leader [position] was for three years but I wanted to be back on the management team.

When she was asked the question about research, her answer was that she tried to undertake this by blocking time in her diary. But she did not find this worked too well since short term demands that had to be prioritized, got in the way, especially administration. She had over 100 unanswered emails, which she found stressful, but her view was that if

she started to answer them she would not do any research at all.

She was experiencing much more bureaucracy in applying for conference support, for example, and it was now much harder to get money for this activity. "You have to know in advance before the abstract has been accepted; you have to send in an application in advance – nearly a year".

The focus seemed to be more about what the University needed rather than individual academics, which meant that training at your workplace tended to be funded only if University and individuals needs happened to coincide.

- *Robyn – Principal Lecturer*

Robyn described her preferred role as an academic leader, concerned with steering a team to produce high quality courses that students were happy with. Her role involved teaching, course management, team leadership and research. She coped by being 'ruthless' in the management of her time, as well as by going regularly to the gym and walking.

From her account it seems clear that the managerial or academic leadership aspects of her role are demanding but she has, nevertheless, been able to remain research active and still enjoys teaching and the engagement with students that this brings. She acknowledges support from the university in providing research assistance and funding, as well as some release from teaching, to pursue research projects.

She explicitly distanced herself from 'top-down' managerialism, describing her role in the team as follows,

I see it as a leadership role in terms of teaching and learning; in terms of the academic standards of the field. I think that for me it's about developing new initiatives, new programmes, identifying where the weaknesses are and trying to manage those problems and ... also I see it in terms of the student experience.

She presented herself as something of a reluctant manager, having to deal with a minority of her colleagues that present her with particular difficulties because, according to her account, they are not performing certain aspects of the role well enough,

Academics are not necessarily team players ... it's all about them and their rights as workers and not thinking about the collective... It really isn't fair.

She described how, in the past, performance issues were not tackled – 'you either did your job or you didn't do your job. It didn't seem to matter.' Now, after organizational change and with a new Dean, this had changed,

We work in a climate where we want autonomy and we want, I want, people to work professionally and manage themselves and be self-regulating.

Despite aspiring to such professional autonomy, she was, however, prepared to challenge what she identified as shortcomings in her colleagues, having informal meetings to discuss performance

issues and even moving to more formalized meetings which might result in disciplinary proceedings.

Her ambivalence about managing was apparent. She did not aspire to a senior management position in the university, but she recognized that management needed to be done and was willing to assume what might be seen as managerial responsibilities.

Swedish Interviews

The interviews with two female academics in Sweden showed a direction similar to the English academics. The two female academics from Sweden, one head of division and one field leader were both satisfied with their work situation. They liked their jobs and also enjoyed working as middle managers.

• *Anna – The Research Manager*

Anna, who had worked in different positions over the years, had a new job having changed Universities 1 ½ years ago, which meant she still encountered a number of challenges at her workplace. At that time she had worked as a head of division and earlier at the other University as field leader. In the interview she described her experiences both as a head of division and as a researcher. She really liked to work as an academic and enjoyed being head of division, even if it took its toll, with long hours and many problems to solve concerning the staff. Still, she had found ways to do her research.

She felt that she was prioritizing the interests of the staff rather than her own interests because the division was under construction. They needed more

associate Professors and Professors, so she was busy working on that. She had been allocated 50% research – a special position she had applied for in competition with others. She had been offered numerous courses and had participated in them, both educational courses and courses for readership,

Expertise in both areas is needed of course – teaching and research. Where I stand today, all teaching staff have research in their job description. The risk is that you get stuck in one role and my wish is that you do both, although it is more or less certain periods of research or teaching.

Her last comment was that “It’s fun to work as a manager; otherwise I would not choose to do it”.

- *Ulla – Administrative Leader and Colleague*
Ulla worked as a field leader, teacher and researcher. Most of her time was spent on her assignment as a field leader, the most difficult part of her job and the most time consuming. This took up most of her time, approximately 50%, with teaching 30% and her research 20%. She had been allocated research time of 3 months during the year but she found it difficult to find the time she needed to do long term research. She wrote articles together with a colleague, based on empirical material she had collected in an earlier project.

As a field leader she had to meet deadlines from central administrators. They tended to send out deadlines at very short notice and if she or any of the other field leaders protested about these deadlines the response was that the computer system required the information to be reported

within a certain time. She felt that administration was something she had to attend to at short notice and could not ignore. If she did not send in the information in time it could affect next year’s teaching, and thereby the work situation for teachers and also students.

She had a responsibility for the budget which was based on the number of students registering. The volume of emails to be dealt with on a daily basis was acknowledged as a difficulty. The job as a field leader was demanding and she felt that as a field leader she had to be available all the time, she could not just take some time off during a semester. She had to answer emails, attend meetings, deal with problems, meet deadlines and be in touch with administrators at the departmental level as well as central administration. However, she did attend two international research conferences every year and also found time to write conference papers and articles with colleagues. She was conscious that the support for her research was limited, but that some was forthcoming,

If I’m going to do research I need external funding and I have not been that successful on that. I have been involved in different projects, more evaluation that have given me empirical data which I’m writing articles on.

Concluding Thoughts

In this paper we have sought to explore the implications of the recent turn to managerialism in higher education through the personal accounts of eight female academics in England and Sweden. All of the interviewees whose accounts we have con-

sidered had considerable experience as academics, each having been in post for between fifteen and twenty-five years. And all shared a perception of the recent changes as having led to considerable pressure on them as individuals.

Implementation of new reforms take between 5 to 10 years and these eight academics show that managerial tasks were and are even now still putting strain on female academics in middle level positions. But while in the earlier interviews respondents often expressed negative opinions about the changes and said they were struggling to cope, ten years later the four academics in both Sweden and England did not question managerial tasks and seemed to find ways of accommodating them, even while they recognised that this brought pressures and conflicted with research time.

The interviewees in 2001 talked of constraint in their career choices and that they were coming to see themselves increasingly as teachers and administrators, rather than as researchers. They also seemed to be poised to maintain or reduce the levels of responsibility they had, rather than pursue career 'advancement' in order to secure Professorial or senior managerial identities.

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In the 2011/12 interviews research was, for all four of them, a part of their work, and they were all aware of the importance of keeping up their research profile and identity. However, time for research was also reported to be highly constrained, with other responsibilities impinging upon it.

These findings suggest some implications for the gendered nature of university careers and occupational structures. All eight interviewees were aware of gendered inequality and saw women around them carrying a heavier burden of teaching and administration than their male colleagues, who held more senior research and management posts.

Of course, the nature of the qualitative approach employed here cannot answer questions as to whether or not such trends are likely to be widespread or maintained in the long term, but it does give some insight into the pressures experienced by female academics labouring under the New Public Management – of how they are at once both constrained by it and also actively seeking to position themselves as intellectual workers in a given social and historical context. ●

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CHAPTER VII

CHALLENGE GENDER INEQUALITY IN HIGHER EDUCATION TO SUPPORT A REFLECTIVE PRACTICE

Eva Källhammer and Åsa Wikberg Nilsson

The focus in this paper is our development of the Persona method for applied gender research within Higher education. Our aim is to describe how we implement the Persona method to develop learning situations that stimulates a reflective practice. A persona is a fictional representation of a person, based on empirical data, which is implemented as a tool to communicate situations or issues. Our experience is that the Persona method can be one contribution to move from teaching to learning and develop reflective gender aware practices within Higher education.

Keywords: *Personas, applied gender research, higher education, design methods*

Introduction

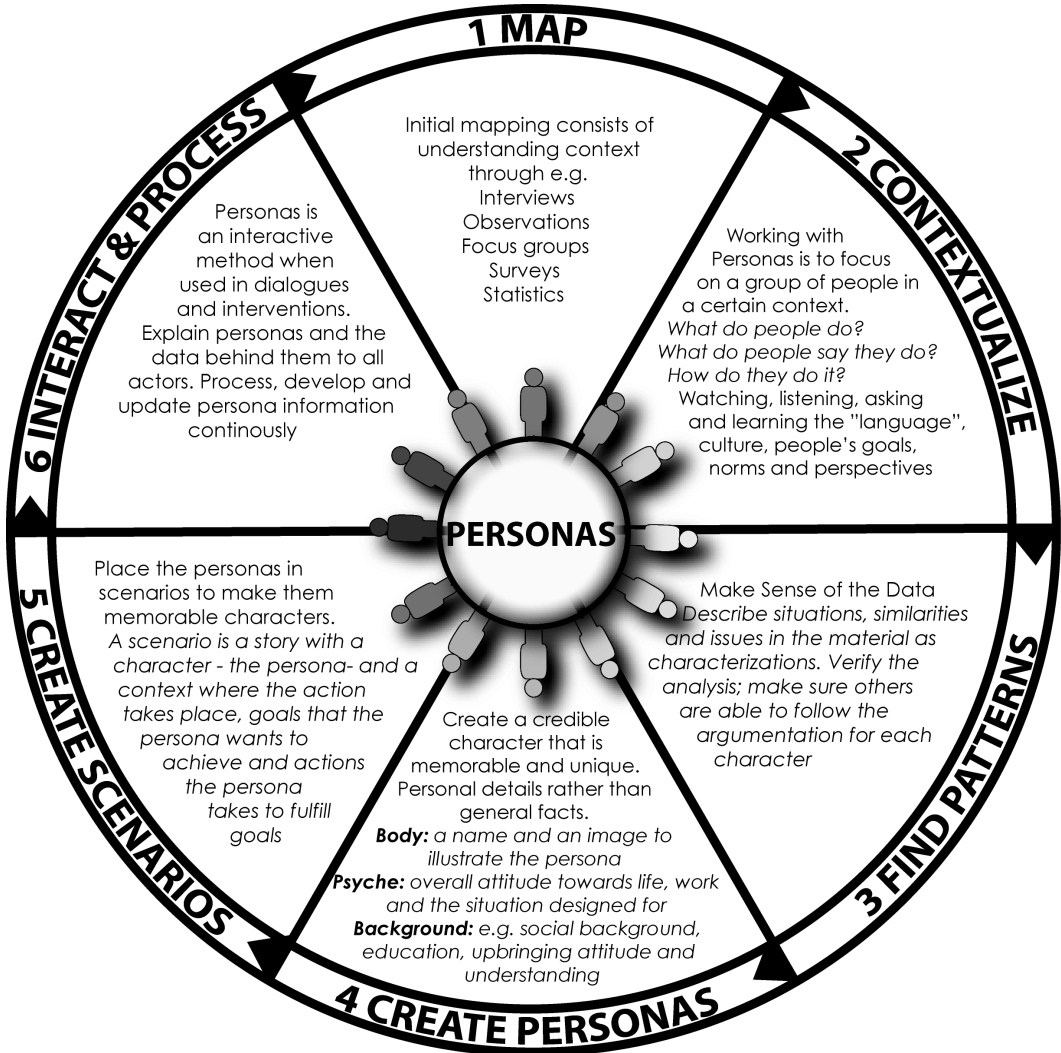
The focus of this paper is a practical tool that can be implemented both for gender mainstreaming, as well as for supporting the shift from teaching to learning (Barr & Tagg, 1995). Even though Sweden is known for gender equality, only 23% of the professors in Swedish Higher education are women (Statistics Sweden, 2012). However, most universities in Sweden seem to now realize that actions are needed to change the situation and hence increase the number of women professors.

At the same time, gender researchers are trying to develop methods to bridge the gap between

gender theory and practice in order to 'move out of the armchair' (Meyerson & Kolb, 2000) and take action for change. Both gender mainstreaming practices and the shift from teaching to learning needs tools that support a deep reflective learning approach, hence stimulate reflection on 'what is'. For this reason, we suggest the Persona method, as a tool that supports the development of a reflective practice for undergraduates, faculty and other staff within Higher education.

We base our notion of gender as socially constructed in people's everyday actions (e.g. Acker, 1999). Our aim is to describe how the Persona method can be used to stimulate reflection in new

Figure 1. Illustrates our process of making a Persona, a model inspired by work of e.g. Cooper, 1999; Grudin & Pruitt, 2002; 2003; Pruitt & Adlin, 2006; Nielsen, 2004; 2007



ways. This involves a critical analysis of 'what is', i.e. current experiences of the situation that is being explored, in order to challenge current logics. In the long run, such processes can contribute to a change of stereotypical gender assumptions as well as support the development of a reflective practice within Higher education.

Personas

A persona is a fictional description of a person, whose characteristics are of importance for the project it is designed for (Nielsen, 2007). It is a frequently used technique during a design process to focus on users' needs and preferences (see e.g. Cooper, 1999; Grudin & Pruitt, 2002; 2003; Pruitt & Adlin, 2006; Nielsen, 2004; 2007). However, we have developed the Persona method to address gender issues, in order to create gender awareness in higher education.

Our model for creating a persona consists of mapping, contextualizing, characterizing, personalization and scenario creation and validation of the characters, see figure 1. Similar to Nielsen (2004), the personas are formed, consisting of a body; a fictive name, an image to illustrate the character, a psyche; such as an overall attitude towards life, work, a background; e.g. social background, education and finally personal traits which brings the Persona to life and makes it an engaging character rather than a flat stereotype. The fictional details in a persona are included in order to increase commitment to the character.

Reflective practice

The activity of designing as such, Habraken and Gross (1987) argue as a social process, involving communication, negotiation and compromises. For us this necessitates an understanding of the world as socially constructed; through interaction humans build beliefs, norms, and understandings (e.g. Acker, 1999). Given this, the interest in the current study was in facilitating reflection on current norms and perspectives in order to ensure sustainable change within Higher education, a process to change referred to as a building a reflective practice (Schön, 1995).

To give a simple explanation of what we suggest by changing perspectives through a reflective mindset we propose a simple exercise. There are many pictures in circulation that enclose two images within one, e.g. pictures that contain both an image of a duck and a rabbit, a young girl and a more mature woman etc. If presented with such a picture, we suggest that it takes a little extra work to change approach and be able to see the aspect one did not notice at the first glance. If simply shown a picture, one normally does not reflect on the presence of other aspects within; however, when it is pointed out that there is more to the picture than what first caught one's eye, one usually examines the content of the picture more carefully. If then able to see the aspect that is hidden within, one has probably been forcing oneself to see through a new perspective, a somewhat changed mindset towards the image itself.

It has been argued that being involved in discussions concerning interpretations of experiences,

situations and practices contributes to a change in mindset, a process supporting and enhancing learning, improvements, and development referred to as reflection-on-action (Schön, 1995). Therefore, such a simple exercise as the one presented above, will possibly offer a small hint of what the Persona method may contribute to, what we propose as building a reflective practice in participation with the people involved in interpretations of the presented persona experiences.

Applied gender research

With inspiration of Acker's (1999) model, we have been studying gendered processes in Higher education, which involves questioning structures, symbols, interactions and identities. We use the Persona method in applied gender research to communicate gender issues and increase gender awareness.

We see the world as a social establishment, in which norms and values are formed in interactions between people. Within the social constructionist approach the 'doing of gender' is undertaken in interactions between women and men, women and women, men and men (West & Zimmerman, 1987). The doing of gender assume a ubiquitous dichotomy of women and men (Lorber, 2000), resulting in one being what the other is not (Ahl, 2006). Stereotyped gender perspectives are expressed through what people think, say and do and in the discursive constraints that establishes the limits of possibilities (Acker, 1992). In this view, gender inequality assumes from stereotyping of women and men, beginning in taken-for-granted

assumptions, values and practices that result in certain men gaining power and privilege at the expense of women and other men (Meyerson & Kolb, 2000).

Our idea is to use Personas to reflect on current norms in order to better ensure a sustainable reflective learning process, sometimes referred to as a reflective practice (Schön, 1995). Developing a reflective practice within academia could hence mean to stimulate other ways of understanding things, to 'put on another pair of glasses' and reflect on practice through them.

Experiences of Personas

The study initially consisted of watching, listening, learning and understanding practice within Higher education. In one project focusing on gender aware recruitment processes, this phase consisted of a statistical review of Swedish university structures, and additional 49 interviews at one university, 20 observations of the recruitment process and workshops involving around 125 different actors at one Swedish university, in order to learn of and understand the current practice.

Based on the empirical data, the next phase consisted of developing a number of personas. A persona creation is emphasised to ideally include 'all concerned' to ensure its validity (Nielsen, 2007). Additionally, there is claim for a social robust knowledge production to validate research results by including actors from outside the research community (Novotny, Scott & Gibbons, 2001; Gunnarsson, 2007). For this reason, the personas have been presented and 'scrutinized' among project

participants to ensure them as credible characters. We have used scenarios to address questions as; does gender matter in the recruitment process, who are promoted for further training and higher positions within academia, and who is not. The personas were used to discuss gender inequality with people that traditionally would not take part in such discussions. To clarify our use of the method, we present one persona below and a short reflection on the issues we believe the persona addresses. Then we present the 'switching gender' activities and our reflections based on that.

Persona Björn

Björn is a thirty-nine-year old assistant professor at the Applied Engineering Design division at the University. Björn is seen as a prospective professor and says that 'my career has been like riding a train, just following the track'. Now, when the current head of division is retiring, many see Björn as the alleged successor, though some think he is not yet scientifically mature enough to be head of a division. Björn knows that he is still a bit 'green', especially in teaching, however, since he feels he is well-supported by the current professor, his former supervisor, he plans to apply for the position. His personal goal is to become a professor, and now it looks like it may become reality soon. At Björn's division there are fourteen men and one woman. He thinks it is okay for women to be in his field and does not understand why there are so few. They of course have to prove worthy and it takes a lot of work; Björn work at least 60 hours per week in order to do the valued activity within academia; to produce a number of published articles.

Björn has a family, his wife Annika works as a part-time pre-school teacher and they have two children, Johan and William. Björn consider him and Annika being quite equal, for example his ambition is to help Annika with e.g. the vacuuming, though Annika usually has finished by the time he gets home, since she works only part-time. He does not mind, after all it is he who earns most of the money and who does something valuable for society, his wife understands this. They have agreed that his career is more important, at least for now. Nevertheless, Björn would like to have a bit more 'quality time' with his children, he used to play football himself and now his oldest son has started to play. Nevertheless, he did actually take parental leave when his youngest son was born; he worked from home for ten days. This is not something fellow researchers have done. He is a bit puzzled by this, he wants to do his best at work to proof worthy the possible new position, but at the same time he 'doesn't want to be an absent parent, in the way he remembers his own father to be'

Rationale for persona Björn

The story of persona Björn, as presented above, is based on the empiric data. In our initial mapping of Swedish universities we found gendered structures, especially within the technical universities, in which men dominates at top positions and women are in minority within these positions, or put differently; '*being a man weighs more*' (Fältholm & Källhammer, 2007). Björn characterizes a stereotypical male researcher within a technical field, who is promoted by both sponsors and peers (ibid.). We argue that this persona addresses the homosocial reproduction structures (Kanter, 1977), indicated

in our inquiries e.g. by a male respondent's saying that '*...there are factors encouraging men, the faculties encourage men, men encourage men and men have access to informal networks*' and a female respondents short statement of; '*men pick men*'.

Persona Björn illustrates that many departments within the engineering disciplines are male-dominated. He is a stereotypical symbol both as a researcher and for the technical field, an issue we address with help of the persona. Björn's identity and behaviour illustrates as 'hegemonic' masculinity (Connell, 1987); coping with a family and being a successful researcher at the same time. In our inquiry, we found that men in academia often have a research focus, while women often have an educational focus. This is illustrated in the following quotation from one of our interviews: '*women are often recommended for positions that are not focused on research (...). A lower level management position is a barrier rather than an opportunity to a career in academia*'. We believe this may affect identity, considering our understanding of research as being higher valued within academia compared to teaching. If women spend less time on research, compared to men they have difficulties in climbing the academic career ladder, hence, the career structures of the universities are gendered.

Björn's family situation is stereotypical, addressing him having a 'forgiving and understanding' wife, who takes care of the children and their home. In the story, this is legitimized because 'he earns the money'. This addresses inter alia unequal wages that contributes to a reproduction of traditional gender patterns (Mellström, 2006). Furthermore,

there is arguing for men's higher wages symbolizing a male supremacy (Fältholm & Källhammer, 2007). Within this story it is a question of whether Björn is happy with this situation, illustrated in his wish for more 'quality time' with his children. The story illustrates a structure of male alliances and a hegemonic masculinity, also deals with *interaction* aspects such as parental leave not being considered as a 'correct behaviour' for a man. We believe this address argues for contemporary men having to deal with dual loyalties, in which the loyalty towards work usually outweighs the loyalty for home and family responsibilities. In our inquiry we found most men acknowledge equality, even though they do not always practice what they preach. Hence, this is also a discussion we address with Persona Björn's story.

The next step – switching gender

The risk of using the Persona method is in our experiences that images such as Persona Björn, risk presenting gender as unitary categories (Kvande, 2003) and thereby risk reproducing gender stereotypes rather than challenging gender inequality. Consequently, this would not contribute to a learning situation for the participants. For this reason, we stress the importance of using Persona as tools for reflection, rather than as stand-alone objects. During workshop activities we ask our participants to address the issues presented by the personas and discuss consequences for the personas. The discussions of different perspectives of the presented situation, we believe to contribute to a reflection of one's own values and understandings. In turn, sharing with others contribute to a reflection of the presented situation, hence, a learning situation.

In addition, with inspiration drawn from the qualitative method of Memory Work (Widerberg, 1999), we have developed the method to challenge the stereotypical representations by switching gender of the personas. For example, participants are presented with e.g. persona Björn, and we initiate a discussion based on his story. Subsequently, we present the participants with persona Birgitta, who is a 'female representation' of persona Björn, and reflect on whether the scenario becomes different due to the switching of gender.

Persona Birgitta

Birgitta is a thirty-nine-year old assistant professor at the Applied Engineering Design division at the University. Birgitta is seen as a prospective professor and says that 'my career has been like riding a train, just following the track'. Now, when the current head of division is retiring, many see Birgitta as the alleged successor, though some think she is not yet scientifically mature enough to be head of a division. Birgitta knows that she is still a bit 'green', especially in teaching, however, since she feels she is well-supported by the current professor, her former supervisor, she plans to apply for the position. Her personal goal is to become a professor, and now it looks like it may become reality soon. At Birgitta's division there are fourteen men and one woman. She thinks it is okay for women to be in her field and does not understand why there are so few. They of course have to prove worthy and it takes a lot of work; Birgitta works at least 60 hours per week in order to do the valued activity within academia; to produce a number of published articles.

Birgitta has a family, her husband Anders works as a part-time pre-school teacher and they have two children, Johan and William. Birgitta consider her and Anders being quite equal, for example her ambition is to help Anders with e.g. the vacuuming, though Anders usually has finished by the time she gets home, since he works only part-time. She does not mind, after all it is she who earns most of the money and who does something valuable for society, her husband understands this. They have agreed that her career is more important, at least for now. Nevertheless, Birgitta would like to have a bit more 'quality time' with her children, she used to play football herself and now her oldest son has started to play. Nevertheless, she did actually take parental leave when her youngest son was born; she worked from home for ten days. This is not something fellow researchers have done. She is a bit puzzled by this, she wants to do her best at work to proof worthy the possible new position, but at the same time she 'doesn't want to be an absent parent, in the way she remembers her own father to be'

Based on our experience the procedure of switching gender of a persona contributes to an increased gender awareness, since the participants becomes aware of their own, often, stereotypical perspectives. Hence, through the switched gender personas, participants can reflect on stereotypical ways of thinking. Through the reflection, the method contributes to a learning situation that changes previous understandings. For example, the structure of male domination and men promoting men can be challenged through the discussions of e.g. persona Birgitta. It is interesting to discuss if it is likely that 'she', as a woman, would be promoted

all the way to the top, as the case is with persona Björn. In those discussions, our experience is that the metaphors of 'glass-ceiling' and 'barriers' for women within Higher education are addressed and often thoroughly debated, something we believe challenge stereotypical gender constructions amongst the participants. Since persona Birgitta is presented as the only woman in a male-dominated environment, 'she' additionally addresses interactions between women and men, since her 'tokenism' (Kanter, 1977) may result in performance pressure. An indicative example of this is the resulting identity, expressed by one of our respondents as; "women at the university often try to defuse differences between women and men and that women adapt to men's behaviour in order to be accepted" and "they have to prove worthy". We learned that women do not want to be presented as 'female researchers', 'female entrepreneurs' or whatever the suffix may be, in line with claims of a 'stigmatizing identity' (Lewis, 2006; Fältholm, Abrahamsson & Källhammer, 2010). Consequently the strategy for some women becomes to adopt an identity that suppresses female identifiers and to work harder to prove them worthy. In our activities, we use 'switch gender personas' to highlight and discuss such strategies and their consequences. Persona Birgitta is a character whose story is not based on empirical data, since she is a result of a switching of gender. Even so, we consider this as a valuable tool in many respects.

What our participants have considered as more unusual is that Birgitta is presented to have 'home service' (her husband) and that she has chosen to take only ten days of parental leave. In Sweden, there is a generous parental insurance, however

still mainly used by women. The fact that persona Birgitta's short parental leave often becomes a subject for harsh discussion, as not the case for persona Björn, we believe reveals a lot of gender processes. Thus, persona Birgitta illustrates that the presented scenario becomes different due to the switched gender and, we argue, the activity of switching gender challenges stereotypical gender constructions and contributes to a reframing of our participants gender awareness.

With this story we would like to illustrate the difficulties of using images of men and women without reproducing gender stereotypes and/or creating unitary categories. For this reason we emphasize the importance of discussing each persona in detail before presenting them to people that are not familiar with gender issues. Butler (1997) discusses the problem of feminism being the women herself, and Haraway's (1991) argues for being 'in media res'; women gender researchers being 'in the belly of the monster itself' due to being a part of, in the middle of, and participant in what is to be analysed and researched. We find this to be true, since we are both researchers, women, and hence, 'the subject' of what is to be researched. Although, an experience drawn from the discussion of the image mentioned above is that it made us aware of the still very stereotypical assumptions of women and men.

In applied gender research the personas have contributed to unsettling conventional assumptions about gender. Based on our experiences, Persona is a valuable tool to communicate gender issues and a method to move beyond talk about the 'the problematic women issue' and thus one

way of increasing gender awareness. The Persona method is one way to move 'out of the armchair' of prejudiced ideas and current gender discourses, and thereby- in the long run, a contribution to a change of stereotypical gender constructions.

Discussion and conclusions

Drawing on Acker's model for the study of gendered processes in organizations, we use Persona as a method to discuss and challenge gender inequality in Higher education. However, we must underscore that the Persona method was developed within the field of Design for communication of user needs and preferences, and our application of the method is therefore not fully in accordance with the original methodological idea.

A reflection from using the method is that the use of female or male personas also risk establishing gender stereotypes or creating unitary categories of women and men. Therefore, we stress the importance of using the method as a tool for communication and not as posters on a wall. When using images of men and women we risk reproducing gender stereotypes and/or creating unitary categories. For this reason we emphasize the importance of discussing each persona in detail before presenting them to people that are not familiar with gender issues.

Using personas made us aware of very stereotypical assumptions of women and men. Butler (1997) discusses the problem of feminism being the women herself, and Haraway's (1991) argues for being 'in media res'; women gender researchers being 'in the belly of the monster itself' due to being a part of, in the middle of, and participant in what is to be analysed and researched. We find this to be true, since we are both researchers, women, and hence, 'the subject' of what is to be researched.

In applied gender research we find Persona as a valuable tool to communicate gender issues and a method to move beyond talk about the 'the problematic women issue' and thus one way of increasing gender awareness. The Persona method is one way to move 'out of the armchair' of prejudiced ideas and current gender discourses, and thereby- in the long run, a way to unsettle conventional assumptions about gender and contribute to a change of stereotypical gender constructions.

Based on our experiences, Persona is a valuable tool for reflection, and also one way to move beyond teaching about gender issues into learning about gender related experiences, hence one way of building reflective mindsets of people within academia. Thus, the Persona method is one contribution to move from teaching to learning, and developing reflective practices within Higher education. ●

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CHAPTER VIII

TEACHING SCHOLARSHIP AND GENDER IN GERMAN AND SWEDISH UNIVERSITIES: TOWARDS THE ANALYSIS OF PROFESSIONAL IDENTITY NEGOTIATION AMONG JUNIOR ACADEMICS

Natalia Karmaeva

In light of recent higher education policies and the resulting trend toward separating teaching from research to be seen particularly in the case of the lecturer positions to be introduced in Germany and already to be found in Sweden, this chapter addresses the gendered outcomes of these processes for teaching academics. The ways in which academics experience teaching and negotiate professional identities in Sweden and Germany are analyzed on the basis of a combination of the author's own empirical data and secondary data.

Keywords: *Teaching, academic profession, gender, Sweden, Germany*

Introduction

The Nordic countries have acquired an international reputation for being in the avant-garde of gender equality issues. According to the World Economic Forum's (2010) Global Gender Gap Report, it is Iceland (1), Norway (2), Finland (3), and Sweden (4) that continue to demonstrate the greatest equality between men and women. Having achieved such a stable institutional basis for promoting gender equality, the Nordic countries already went on to commission the promotion of women in science during the late 1970s—well before other European countries (see Roivas 2010, p. 1)).

Generally, fewer female students enter higher education programs in Germany than in Sweden and significantly fewer female students commence doctoral training. Whereas they constitute one-half of the overall student population in Sweden, they make up only about 42% in Germany (Quality in Academia and Life, 2011, pp. 13, 14). At the later career stages (i.e., in senior academic positions), in contrast, the percentage of female academics is much lower: About 19% of academics holding senior academic positions (professorships) in Sweden are female compared to about 17% in Germany in 2008. However, these percentages are currently increasing (Quality in Academia and Life, pp. 8, 17). This raises the question whether subtle mechanisms that reproduce inequality can be ob-

served in the individual career outcomes of female and male academics.

In addition, some researchers note that while predominantly holding junior positions, female academics are being driven increasingly into teaching roles (Bender, 2010; see also Berg, 2001; European University Institute, 2013). In both Germany and Sweden, the changing institutional context is being underpinned and transformed by new public management policies focusing on economic autonomy, external evaluations of research, and growing competition for research funding (see Seppo, 2010, p. 5), the massification of higher education, and the Bologna process (growing number of students and their diversity, curriculum standardization). For example, “the number of students increased by 83% between 1989 and 1998, whereas the number of lecturers increased by only 17% during this time” (Hogskoleverket [The Swedish National Agency for Higher Education], 2000, cited in Berg, 2001, p. 67). This has meant an increase of up to 15 students per lecturer (Berg, 2001, For Germany, in contrast, there are 17.9 students per lecturer (Brugger, Threin, & Wolters, 2012, p. 10).

The changing incentives for academic work are leading to increasing pressure at work and a shift in the balance between different academic activities (such as research, teaching, and administration; see Berg, 2001, p. 5; Musselin, 2010) with teaching and research becoming increasingly detached from each other.

In both countries, more female academics work in teaching and short-term positions than male academics. For example, in Germany, “women

tend to perform this kind of badly paid and hardly valued work for longer periods of their academic career than their male colleagues – often for more than 20 years. Such a lectureship does not include employment status at a university” (Quality in Academia and Life, 2011, p. 16).

Whereas in Germany, the introduction of professorships in teaching is still in progress, comparable permanent positions for lecturers already exist in Sweden. It is important to take a closer look at secondary data on the gendered outcomes of the institutionalization of lecturer positions in Sweden when analyzing teaching because of its relevance for the debate on similar initiatives in Germany.

An uneven distribution of different components of academic work may result in the construction of individual disadvantages on the academic labor market. Indeed, the existing research on academia in Germany and Sweden demonstrates that a “teaching specialization” may have negative career consequences as soon as it distracts academics from doing their own research (Bloch, Franz, & Würtmann, 2010, p. 75; European University Institute, 2013). It can be assumed that this development may well have especially unfavorable consequences for female academics.

Thus, the question addressed in this chapter is how do female teaching academics experience their involvement in teaching in German universities and how do they negotiate their professional identities?

Literature Review and Theoretical Framework

The above question was approached by applying the embeddedness framework (see Beckert, 2003; Granovetter, 1985) to perform a more systematic analysis of the context (structure) of individual action and its consequences for agency (autonomy). This approach stresses the role of personal relations and institutions (labor regulations, professional institutions) in decision making. It has a high potential for identifying gendered adaptations as a mechanism that may trigger disadvantages for female academics.

The empirical part applied an analytical approach focusing on professional identity negotiation (Meisenbach, 2008) in order to highlight the different discourses (related to particular structures forming individual action orientations) that emerge when academics engaged in teaching address the material reality of their professional practice in the interviews.

As Bloch et al. (2010) note, it is not teaching, but normally “the publications [that] are decisive for career progression in academia.” Moreover, “if teaching exceeds a certain amount, there is a high probability that it will hinder the later career. Together with unequal employment conditions, the level of involvement in teaching probably determines career chances” (p. 78).¹ The European University Institute (2013) draws the same conclusion for Sweden.

In Sweden, different career paths are available. It is possible to apply for a research assistant position (after completing a PhD), and subsequently for a lecturer position or readership. Senior lecturers work on their own research, teaching, and administration (see Berg, 2001, p. 60). As Berg (2001) notes:

A lecturer employed at a university can apply for an employment as a professor [but the path to the top position] is not available to all with many starting after their under- or postgraduate studies as administrators or as a lecturer working with their PhD in addition to a full-time job. Many of them never finish their PhD studies and end up as lecturers, principal lecturers, and sometimes readers with a slightly different career pattern. (p. 61)

German trade unions are highly critical of the situation of those who only teach while doing a doctorate (see Templiner Manifest, 2010). Due to the “six-plus-six regulation,”² the lack of time for own research (due to the high teaching load), and the lack of permanent positions in teaching may well have negative consequences for academic careers. In the later postdoctoral phase, there are still many highly qualified academics who work “for a long time in jobs in third-party funded projects or as assistant lecturers (*Lehrbeauftragte*), and try to stay in the system of science” (Kehm, 2010, p. 14). But can permanent teaching positions alone be a solution?

¹ All non-English quotations have been translated by the author.

² According to the *Wissenschaftszeitvertragsgesetz* (Stand 12. April 2007 http://www.bmbf.de/pubRD/WissZeitVG_endg.pdf), the possibilities of working in positions financed by the general university budget (rather than third-party funding) is limited to 6 years before and 6 years after obtaining a doctorate.

Some researchers conclude that whereas a stronger representation of women in higher academic positions is a problem in Germany due to the high dropout rate with more women leaving academia, in Sweden “women don’t leave higher education more often than men, but rather the opposite. However, the men who stay are promoted faster” (Quality in Academia and Life, 2011, p. 9). As one of the Swedish female professors notes, she can find “many examples of the common mechanisms of men choosing men, male networks more or less open or secret, men being seen as constituting the natural heirs to their professors, and being granted a self-evident place in the structure while women have to force their way into the structure, the competence of men being over-evaluated, while the competence of women is under-evaluated, etc.” (Professor, law, Sweden, 3 children quoted in Seierstad & Healy, 2012, p. 304).

Empirical Implications

The question how female teaching academics experience their involvement in teaching in German universities and how they negotiate their professional identities was addressed through qualitative research with data being collected in problem-centered qualitative interviews (Witzel, 1985). Interviews were carried out with junior faculty social science academics teaching at one university and one technical university (*Technische Universität*) (16 female and male respondents working as scientific assistants, lecturers for specific assignments, assistant lecturers, or assistant professors). The problem-centered interviews were especially designed to analyze individual motives and aspirations as well as the structural factors that convert

them. Two groups of academics engaged in teaching during the biographical phase prior to the possible career transition (before and after graduating from doctoral studies) were invited to participate in the interviews.

Only selected results will be presented here in order to provide a brief overview. Coding procedures from grounded theory were applied on two levels: on the “objective” level, the important characteristics of academics as actors were identified relative to their structural position in the hierarchical order (job title and assignments) their social networks, and their personal commitments. In addition, when formal institutions such as labor law regulations were referred to, these were coded as “objective.” Social networks and personal commitments are especially important as soon as they include the “reciprocity” aspect (having been offered the first job informally by the professor, work distribution and handling changing workload within the working group). Certain positions in the structure of social relations limit the horizon of subjectively perceived opportunities on the second level—the “subjective” one (as soon as “informal” commitments are the case). The “subjective” level also includes more general justifications of decisions and states as well as the framings of teaching.

Some illustrations of the interplay between the “subjective” and “objective” dimensions of embeddedness for female academics can be seen in the interview transcripts below:

Exactly when you [want] this, that is when you would like to stay at the university, within the regulation six plus six [years], that is, actually, the job for

a short time. . . . I don't know how you can manage this at all when your children are small, so that you than possibly the (.) really have the possibility to work first a bit more, without being to reduce [the job] and move into the half-day, in order to be able to deliver more [work] afterwards, or I mean when I did not have the child yet, I was working more too. (Anna, scientific assistant)

On the one hand, this example illustrates the limitations to career development, and moreover, to the possibility of staying in academia imposed by the "6-plus-6 years" regulation. The concern about career insecurity resulting from short-term employment is backed up by statistical data indicating the higher percentage of female academics on fixed-term contracts compared to men. For example, in Sweden, about one third of the academic staff is employed on fixed-term contracts, and these are more often women than men (Quality in Academia and Life, 2011, p. 13). On the other hand, the example illustrates the work redistribution in the working group based on reciprocal commitments, which can also be characterized as an adaptation (to be discussed later in this paper).

On the "subjective" level, the study investigated professional identities and particularly those in teaching in relation to other academic work components. University teaching as a type of work appeared to be stratified as soon as different types of teaching—also less or more favorable types—were specified. On the "subjective" level, informants articulated which opportunities they preferred and which were feasible. Here the structures of relations acquired their subjective meaning through the "community" aspect (good rela-

tions with colleagues, working together) as valued characteristics of their work.

In their identity negotiations and definitions of working life situations, female academics construct preferences for particular work and jobs while also reidentifying themselves with their roles and commitments inside and outside academia.

The intersection of these two levels makes it possible to identify a locus of disadvantage in those situations in which a lack of available opportunities for career development is coupled with negative professional identities in the current professional role along with the dilemmas faced by female academics that eventually constrain their agency, for example, in the case of childcare and the need to balance working life and family.

In their identity negotiation, academics combined both positive and negative discourses on teaching. Taking into account the less prestigious character of teaching in comparison to research (as identified in the introduction), it was important to find out how academics engaged in teaching justify their professional roles and achieve positive identity. It was possible to identify the framings allowing them to achieving a positive identity over the course of the interview, while simultaneously being aware that they were challenged by the material reality of their academic work (such as long working hours, stress related to the administrative support of teaching, large student groups, etc.).

The following discourses were identified for the first group of teaching academics (before graduating from doctoral studies: "teaching as fun," "teach-

ing as undertaking something together," "teaching as trying something new," "teaching as testing own research," and "teaching as research feedback". At the same time, "negative" discourses included "teaching as taking time from research," "teaching as an imposed obligation," and "teaching with no future in academia." The latter framings demonstrate how the academics experienced their lack of professional autonomy in the hierarchical structure of the university in which teaching is seen as being imposed (especially when the seminar topic is not related to one's own research and one has a high teaching load). The doctoral studies graduates engaged in additional positive discourses including "teaching as working with people," "teaching as learning," and "teaching as spreading ideas, while engaging in the same negative discourses as the first group. In all cases, teaching was seen as complementary to research and as a practice with the potential to compensate for some disadvantages of doing only research (such as working alone, not seeing the immediate societal value).

Some framings of teaching here resemble findings from research on lecturers in Sweden: many lecturers who combine teaching, research, and administration see teaching "as an obligation, a heavy burden, a prize in order to spend some time with research" (Berg, 2001, p. 67). This is another example of a negative identity in teaching.

Teaching itself appeared to be a complex concept. On one hand, the more intensive, routinized teaching on the bachelor level—the "basic curriculum" teaching—was less favored by the academics in comparison to "autonomous teaching" in which the teacher can choose the topic and develop

the structure of the course—often linking it to her own research. The concept of practicing "luxurious teaching" means a low teaching load (one seminar per week), autonomy in choosing the topic, small groups, and the possibility of discussing one's own research with a prepared audience. In this way, a "microemancipation" from the load of teaching practice and its realities, important in achieving positive professional identity, was based on the strategy of linking teaching to research and therefore making it research-oriented.

Surprisingly, two other strategies were identified in female academics' teaching framings. In one case, this was linking teaching to a desire for stability and the hope of getting a stable, tenured teaching position in the future (Maria, lecturer for special assignments [*Lehrkraft für besondere Aufgaben*]). In another case, it was coupled with an identity of being a political activist and defending the rights of junior faculty, which meant undertaking something with students and keeping an eye on the situation of teaching academics (Wiebke, lecturer for special assignments). It was also characteristic that both these interview participants were employed in positions involving only teaching with a high teaching load, both had obtained a doctorate, and both practiced teaching of the least favored type (teaching a "service discipline" or Bachelor level teaching). They each expressed a willingness to continue teaching in a permanent position. These situations show an adaptation that goes beyond research-oriented justifications of academic work and relates to nontrivial and risky behavioral paths in academia in which teaching is framed as "hired work." A comparable case of a male academic involved in this kind of teaching gave a different jus-

tification through his motivation to obtain a professorship in the future (in line with established career structures), although not at the university, but at the university of applied sciences that places different demands on research performance.

When looking at the developmental outcomes on the academic labor market, one can notice the unusual character of the careers into which many female academics are driven. First, this means the seemingly “irrational” choice of one’s specialization that starts out from the choice of a research topic. There were the cases in which a so-called “short-sighted” choice based on personal inspiration about the topic appeared to lack career opportunities because there are only a couple of professorships in this field in the whole country (in the case of early childhood education). Other chosen specializations related to the household economics and qualitative analysis software. Second, this means the fragmentation, in other words, the collecting of various experiences that do not necessarily result in a clearly articulated specialization or career path. This kind of career comes together with the idea about teaching as undertaking something new, as trying something out (for a female who started teaching recently by chance after being offered a job following the end of the scholarship for completing her doctoral thesis). The “attitude of trying” indicates an adventurous behavioral character, but also a lack of awareness over the behavioral outcomes and consequences that different working experiences may have for one’s career. The idea of “trying” may be seen as being related to less autonomy: a lack of internal capacity to make reasoned choices and low control over the achievement of desired outcomes

(Muniz Castillo & Gasper, 2012, p. 54). Altogether, it characterizes a high uncertainty of behavior: the situation of “being in the qualification stage.”

The question is what triggers this “nontrivial” behavior and what is the role of gendered adaptations in different career stages? This leads to the investigation of “the locus of disadvantage.”

In the transcript below, the decision to stay in academia was triggered by the external factors imposed by gendered labor market institutions. The degree of action autonomy was lower due to the external limitations on individual freedom to formulate and pursue the professional development states one values:

It was probably a bit like the optimal period in time for me then [for taking the job of a scientific assistant], and to get a following job afterwards, because being pregnant, probably nobody would have hired me (laugh). (Anna, scientific assistant)

In cases involving a longer period of doing teaching (after the initial “trying-out” period), such a fragmentation of experiences is coupled with a negative identity in teaching and a deformation of professional identity (the focus on collegiality, on commitments to the research group rather than the work itself). The interplay between the “objective” and “subjective” levels indicates the resulting loss of individual autonomy in decision making over one’s career with responsibility being delegated to the group.

This can be illustrated by the situation of a female academic who has been spending a long time in

the stage of finalizing her doctoral thesis, moving from one short-term position as a scientific assistant to another, and being interrupted by her childcare responsibilities. The loss of autonomy is indicated not only by her inability to articulate goals and aspirations, but also by the situation of a reciprocal relationship with the group in which she also finds herself. This reciprocal relationship justifies her doing additional teaching-supportive work for the others (see the interview transcript above). Here it is important to note that a pivotal factor for entering such a relationship was the opportunity to retain the job during maternity leave. This opportunity had been offered by her professor and supported and managed within the group (working group within the faculty). As the relationship was developing, the female academic experienced a lower workload during the period of childcare. This certainly meant that this workload was taken over by the group. At this point, it is worth mentioning the role of the formal institutions such as maternity leave regulations. While being generous on the side of the mother, these are less attractive on the side of the employer. That is why this female academic noted that if it had not been for her job in academia, she would not have known how to handle her life situation and retain a job. In addition, this female academic demonstrates a negative identity as a teacher, having hesitations about whether her teaching can be considered to be "good teaching" when confronted with the difficulties in engaging the students and managing the work. It has to be mentioned that she is doing a lot of less favorable teaching for bachelor students.

Having to postpone career decisions and choices can make the dropout option feasible. In the tran-

script below, this is justified through the "inability to combine work ('the life of a scientist') and life":

What certainly makes a difference concerns the planning of my life. I cannot imagine now, no way at all, for example, somehow aiming for a professorship, having two children at home, somehow a man as well, along with both a garden and a house. It is simply too much for me. I know myself, and, somehow or other, I can do one thing well, or may be even two, but that's where it ends. And that's sort of how you plan your life. But somehow it's also, I don't know for sure yet, a female way of thinking, or a feminine way of thinking, and that must be it indeed, because my boyfriend sees things differently. He says that this is not a problem, and that he will take care of the children then. Well. But this is at least my way of thinking and I think it is decisive for me. (Lena, lecturer for special assignments)

A closer look at the interview shows that this is an adaptation to academic competition, when "the others" behave "opportunistically" and the permanent demands to engage in networking and publishing are hard to meet.

Discussion

When considering the changes at universities and in academia, it can be noticed that academic work and academic labor market transformations come together. These two dimensions make up the two most significant components characterizing the relation between changing identities and opportunities on the level of the behavior of academics.

The aim of this chapter has been to analyze how female academics experience teaching and negotiate their professional identities in teaching. A broader perspective on this issue was gained by incorporating some secondary data and research findings from Sweden, where differences can be found in the institutional framework, especially in relation to gender.

It was possible to conclude that despite the institutional differences, there are some similarities related to the existence of the “glass ceiling” for female academics in both countries. The expansion of professional activities beyond research (such as teaching and administration) due to the new public management policies in universities highlights the risk of the formation of disadvantages on the academic labor market. Some examples from the interviews have revealed certain formal and informal mechanisms that push female academics into less advantageous positions. On the level of identity negotiation, they apply the different discourses available to them to support their “adaptations” by justifying their less favorable professional role. The result may be a loss of autonomy coupled with an awareness of the limited professional development opportunities available to them. The chapter identified the embeddedness dimensions of the behavior of female academics engaged in teaching. On the “subjective” level, these are the various societal discourses employed for the negotiation of the professional role; on the “objective” level, their structural position in the formal and informal structures of the academic labor market. When the two dimensions come together, it is possible to suggest that the “locus of disadvantage” becomes the case for a particular female academic.

In the process of identity negotiation, both female and male academics employ a variety of traditional professional discourses, such as autonomous research or the unity of teaching and research, while constructing a positive or negative identity in teaching.

The professional identities of female academics have been shown to be predominantly research-oriented, although the orientation toward teaching might be coupled with a search for employment security and adaptability in the realm of the work–family balance. Female academics tend to articulate the nontrivial justifications for their work and also get involved in more risky behavior on the academic labor market. This may be the result of either less awareness of the labor market structures or of the need to make immediate adaptations to the challenges they face in their working life.

After having considered some of the experiences and identities of female academics engaged in teaching, it is possible to see that they do not always follow the established career paths, and that they are confronted with the need to adapt their behavior. The search for possibilities for adaptation may well reinforce structural mechanisms that could push them into secondary roles. This supports the idea developed in this chapter that “objective” as well as “subjective” dimensions of embeddedness structure behavior and reinforce individual labor market outcomes for female academics engaged in teaching. The example addressing maternity leave and childcare demonstrated two aspects: on the one hand, that gendered formal institutions influence the labor market out-

comes of female academics; on the other hand, that female academics enter into commitments and reciprocal relations at work in situations that create a need for adaptation. In the long run, insufficient adaptation may lead to the formation of a negative professional identity, loss of autonomy, and even dropping out of academia.

Informal labor market structures and formal institutions are mechanisms that not only trigger but also constitute gendered adaptations. And, on the subjective level, these might be coupled with negative identities at work. Taken together, they constitute “the locus of disadvantage” for female academics.

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Conclusions

The example of Sweden shows that achieving an efficient combination of a high teaching (or more precisely, administrative) workload and doing one’s own research is a challenging goal. It may result in burnout for academics, and it is especially difficult for female academics due to the hidden mechanisms of selection and family commitments. In other words, the example of Sweden can serve as an informative basis for debating the idea about creating professorships with a specialization in teaching in Germany along with the possible gender implications this measure may have. ●

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CHAPTER IX

LEADERS' ENHANCEMENT OF LEADER-MEMBER EXCHANGE (LMX) RELATIONSHIPS: AN EXAMINATION OF LEADERS' COGNITIVE SUPPORT AND KNOWLEDGE RESOURCES IN RESEARCH GROUPS IN SWEDEN

Lisa Olsson, Leif Denti, and Sven Hemlin

We examined 166 Swedish academic and commercial researchers. Our goal was to investigate if the Cognitive Support and the Knowledge Resources leaders provide their followers are antecedents of leader-member exchange (LMX). Specifically, we investigated the antecedents in relation to the four sub-dimensions of LMX: Affect, Loyalty, Contribution, and Professional Respect. With one exception, both antecedents related to all sub-dimensions. We conclude that, to enhance LMX quality, leaders should provide their followers with Cognitive Support and Knowledge Resources.

Keywords: *LMX, research groups, Cognitive Support, Knowledge Resources*

High quality *leader-member exchange* (LMX) relationships have a positive influence in the work environment (Gerstner & Day, 1997; Schyns & Day, 2010). They can motivate employees to improve their performance (Burton, Sablynski, & Sekiguchi, 2008; Olsson, Hemlin, & Pousette, 2012; Scott & Bruce, 1994; Tierney, Farmer, & Graen, 1999; Wang, Law, & Chen, 2008), their organizational citizenship behavior (Burton et al., 2008; Wang, Law, Hackett, Wang, & Chen, 2005) and commitment (Sherony & Green, 2002). High quality leader-member relationships can also increase employee satisfaction and well-being (Hooper & Martin, 2008; Sherony & Green, 2002). While LMX is frequently studied as a predictor of posi-

tive individual and organizational outcomes, the antecedents of LMX are less known. Therefore, it is of crucial importance to investigate what leaders can do to influence LMX quality.

In this study we examine research group leaders' provision of *Cognitive Support* and *Knowledge Resources* to followers in research settings in Sweden. Our aim was to test if these leader actions can influence the quality of different aspects of the leader-member relationship in academic and commercial research and/or development (R&D) groups. We suggest our findings apply to leadership in higher education and other creative knowledge environments where

followers are well-educated and/or highly specialized.

Cognitive support is the extent to which leaders provide their followers with expertise in various stages of work with the goal of facilitating solutions to followers' research problems. Research work is creative work; scholars have found leaders' support to be conducive to creativity. In a study that measured both task-oriented and relationship-oriented support, support was positively related to peer-rated creativity ($\rho = .18, p < .05$) (Amabile, Schatzel, Moneta & Kramer, 2004). Reiter-Palmon and Illies (2004) suggested that leader support for R&D workers increases their likelihood of solving cognitive, ill-defined, and multifaceted problems creatively. Cognitive Support differs from general leader support in that it is more task-oriented. Moreover, Cognitive Support assesses leaders' sensitivity to and understanding of the cognitive needs of followers in different stages of creative work.

Leaders' Knowledge Resources include their contacts, information, knowledge, and materials that may help followers perform their tasks. We suggest that when leaders share their Knowledge Resources with their followers, the followers become better creative problem solvers. For example, Kasperson (1978) found creative and productive scientists accessed a broader range of information sources than their more non-productive and non-creative peers. Moreover, Hemlin and Olsson (2011) found that access to group leaders' contacts appears to stimulate followers' creativity. Thus, Knowledge Resources appear crucial for the success of research work.

In sum, the research shows that leaders' Cognitive Support and Knowledge Resources are important factors for performance in creative knowledge environments. Hence, they are possible antecedents of high quality leader-member relationships in research.

Leadership in Research

Leadership is a research topic of interest to many scholars. While some areas of leadership have been extensively researched, there has been little research on leadership in R&D settings (Elkins & Keller, 2003). Success in research depends to a great extent on the researchers' creativity in the generation of original ideas, in the production of imaginative products, and in the development of new processes or procedures. Leadership in creative work therefore poses different challenges than the challenges of less creative work (Mumford, Scott, Gaddis, & Strange, 2002). Creativity is dependent on the intrinsic motivation, creative skills, and domain specific abilities of the individuals working in a particular setting (Amabile, 1996). Research group members are scientists and/or experts who generally display high levels of achievement motivation, task orientation, and autonomy (Feist & Gorman, 1998). In a qualitative study of 153 creative leader-related incidents at work, research group members reported that their leaders' provision of expertise was the number one creativity-stimulating leader behavior. They also reported the advancement of research work as the most frequent reason for describing an incident as creative (Hemlin & Olsson, 2011). This indicates that followers in research are task-oriented. Since the creative results that research groups deliver de-

pend heavily on scientific knowledge and research experience, the leadership of research groups may differ from the leadership in other kinds of groups where members are less specialized and problem solving is less open-ended (Hemlin & Olsson, 2011; Mumford et al., 2002).

LMX Theory

LMX theory emphasizes the unique relationships that develop between leaders and members in leader-member dyads (Gerstner & Day, 1997). A leader-member relationship is complex and entails leader-member exchanges in both social- and task-related work activities. To acknowledge the multidimensionality of leader-member relationships in this study, we deployed the multidimensional measure of leader member exchange (LMX-MDM, Liden & Maslyn, 1998), consisting of four sub-dimensions: *Affect* (e.g., friendship and liking); *Loyalty* (e.g., loyalty and mutual obligation); *Contribution* (e.g., work performance beyond job description requirements); and *Professional Respect* (e.g., respect for professional capabilities). *Affect* and *Loyalty* measure the social aspects of the leader-member relationship, while *Contribution* and *Professional Respect* measure the work- and achievement-oriented aspects (Liden & Maslyn, 1998).

LMX-MDM has been investigated in relation to transformational leadership (Lee, 2005; Lee, 2008); transactional leadership (Lee, 2005); organizational commitment (Law, Wang, & Hui, 2010); job or task performance (Law et al., 2010; Wang et al., 2008); innovativeness or creative performance (Lee, 2008; Olsson et al., 2012); turnover intention (Harris, Harris, & Harvey, 2008); and job strain

(Harris et al., 2008). The vast majority (94%) of studies treat LMX as a uni-dimensional construct, without respect to its multidimensionality and as an antecedent rather than an outcome (Joseph, Newman, & Sin, 2011). In conclusion, the results on LMX-MDM sub-dimensions and their antecedents are scarce.

LMX-MDM in Research Settings

Even fewer scholars have related the LMX-MDM sub-dimensions to creative performance. One exception is an exploration of the effect of follower-rated LMX on innovation in R&D settings (Lee, 2008). Lee found a relationship between *Loyalty* (but not *Contribution*) and innovation in her study of 220 R&D employees in Singapore. Another exception is a study of 137 leader-member dyads in academic and commercial research groups (Olsson et al., 2012). Olsson et al. found that each sub-dimension was differently related to research group leaders' and followers' creative performance (publications). Moreover, it was significant whether the sub-dimensions were leader-rated or follower-rated, and whether researchers worked in academic or commercial research groups.

Cognitive Support and Knowledge Resources as Antecedents of LMX-MDM Sub-dimensions

In creative knowledge environments, variables that increase LMX quality are likely the variables that stimulate task-related aspects of the work relationship and result in the creative completion of tasks. Because certain sub-dimensions of LMX have been previously related to creative performance in re-

search settings, an interesting question is if each of the sub-dimensions can be manipulated through Cognitive Support and Knowledge Resources to heighten LMX quality. We propose that leaders in research settings can influence LMX quality by providing followers with Cognitive Support and Knowledge Resources. We explain this proposition next.

Affect. The sub-dimension Affect measures how much followers enjoy working with their group leaders. We suggest followers have greater liking for working with leaders who provide them with Cognitive Support and Knowledge Resources that reduce negative task-related emotions and stimulate positive task-related emotions. Research work can be difficult emotionally. For example, researchers must be prepared to tolerate uncertainty and to suffer setbacks. However, because research in leader-follower collaborations may be such a stimulating and beneficial activity, researchers may willingly endure such obstacles. A leader who is liked by his/her followers contributes to the goals of research projects. Therefore, we posit that leaders' Cognitive Support and Knowledge Resources positively relate to their followers' Affect in research settings.

Loyalty. The sub-dimension Loyalty measures followers' perceptions of their leaders' commitment to them. If followers are loyal to their leaders, the implication is that they think their leaders will safeguard them when working conditions are stressful and uncertain, as is typically the case in research settings. In a study of R&D employees, Lee (2008) found that the loyalty of leaders to their followers positively influences follower innovativeness. Moreover, Wang and Casimir (2007) found that

leaders perceived by followers as loyal and reliable were more encouraging of their followers' creativity. Since creative results are the inherent goals of research work, leaders who exhibit commitment to their followers by providing them with Cognitive Support and Knowledge Resources can help achieve these results. Therefore, we posit that leaders' Cognitive Support and Knowledge Resources positively relate to their followers' ratings of their Loyalty in research settings.

Contribution. The sub-dimension Contribution measures how hard followers are willing to work to complete tasks. Krause (2004) argued that because R&D followers seek autonomy, the best course of action for leaders may be to give followers more independence and to protect them from irrelevant tasks. We instead argue that Cognitive Support and Knowledge Resources allow followers, who have work autonomy, to contribute still more to their tasks. Through leaders' Knowledge Resources, followers gain access to heterogeneous knowledge and information flows from multiple research areas or domains that help them excel creatively in work. Various social network studies on innovation among workers in industrial settings have reached this conclusion (Obstfeld, 2005; Tortoriello & Krackhardt, 2010). By using Cognitive Support and Knowledge Resources, we suggest leaders can provide followers with new knowledge, ideas, and perspectives. Mumford, Connelly, and Gaddis (2003) claimed that, to stimulate followers' creativity, leaders should provide feedback, formulate problems, and make proactive evaluations. When leaders show enthusiasm for and dedication to their work, followers will do the same, resulting in superior performance (Mumford, et. al., 2002).

Therefore, we posit that leaders' Cognitive Support and Knowledge Resources positively relate to their followers' Contribution in research settings.

Professional Respect. Professional Respect measures followers' regard for leaders in two dimensions: regard for leaders based on professional reputations and regard for leaders based on personal contact. Scientific achievement and public recognition are highly prized in research settings and elicit Professional Respect for leaders from their followers. However, we argue that Professional Respect is also influenced by leaders' personal interaction with followers and specifically their ability to provide Cognitive Support. When leaders are sensitive to followers' cognitive needs in different stages of research work, followers are likely to value their professional abilities and respect them more. Similarly, leaders who can provide their followers with the best contacts and sources of information in the field may enjoy increased Professional Respect from followers. Therefore, we posit that leaders' Cognitive Support and Knowledge Resources positively relate to their followers' Professional Respect in research settings.

Hypotheses

Hypothesis 1: Research group leaders' Cognitive Support is positively related to the four sub-dimensions in LMX-MDM: Affect, Loyalty, Contribution, and Professional Respect.

Hypothesis 2: Research group leaders' Knowledge Resources are positively related to the four sub-dimensions in LMX-MDM: Affect, Loyalty, Contribution, and Professional Respect.

METHOD

Procedure

The participants in this research were academic researchers (at universities in Sweden) and commercial researchers (at companies in Sweden). To qualify as a research group suitable for this study, a group was required to be research-based, to have at least two members, and to have a scientist as a leader. We contacted group leaders and asked them to invite two or three members from their groups to participate in our study. We asked these research leaders, as far as possible, to give us names of male and female members, members with diverse backgrounds, and members with different work experiences or academic seniority.

Sample

Our sample consisted of 166 participants (95 academic, 71 commercial) from 65 research groups (35 academic and 30 commercial). Group sizes ranged from 2 to 20 members, with an average of 6.8 members ($SD = 4.3$). On average, the participants had worked in these groups for 5.3 years ($SD = 4.6$). The participants had worked about 3.0 years ($SD = 3.0$) with their group leader. The participants were well educated: 40% held master degrees and 47% held doctoral degrees, (e.g., in biology, physics, chemistry, medicine, or engineering). 30% were doctoral students. Only 2% held less than bachelor degrees. All of the group leaders held master degrees at the least and 38% held doctoral degrees.

Measures

LMX-MDM. The participants individually rated the 12-item, multidimensional leader-member-exchange scale (LMX-MDM; Liden & Maslyn, 1998). LMX-MDM assesses the four sub-dimensions of Affect, Loyalty, Contribution, and Professional Respect. The response format we used was a 7-point Likert scale in which higher scores indicate higher exchange quality.

Leader provision of Cognitive Support. This scale measures the leader's support for the followers in problem construction, in assessment of alternatives and in the solution implementation. The scale was constructed based on findings from a qualitative biofield R&D study (Hemlin, 2006) and consists of 7 items: "My leader supports me when identifying a problem".

Leader provision of Knowledge Resources. This scale measures the leader's expertise in meeting information needs, providing important contacts and offering relevant knowledge. This scale, which was also constructed based on findings from the Hemlin (2006) study, consists of 5 items: "S/He provides the best contacts for our R&D".

Covariates. Organization (academic or commercial research group setting) was used as a control to make sure that the settings did not differ.

Factor Analyses of Measures

Separate factor analyses. To examine the four-dimensionality of LMX-MDM, we conducted a confirmatory factor analysis (CFA) modification

of Harman's One Factor Test (Mossholder, Bennett, Kernery, & Wesolowski, 1998). The analyses indicated that LMX-MDM should be treated as a four-dimensional rather than a uni-dimensional construct. Furthermore, analyses suggested that the LMX-MDM sub-dimensions, Cognitive Support, and Knowledge Resources, were independent constructs and that common method variance did not pose a significant problem in our data. Therefore, the associations reported in this study ought not be inflated nor deflated. (For details on the analyses, please address the corresponding author.)

Cronbach's Alphas revealed moderate reliability for the four sub-dimensions (α ranging from .67-.87) and good reliability for Cognitive Support ($\alpha = .86$) and Knowledge Resources ($\alpha = .83$).

Data Analysis

We conducted descriptive and correlation analyses on the variables in our study. We conducted Hierarchical Linear Modeling (HLM) using MLwiN 2.22 to account for dependencies in our data. The purpose of our analyses was to investigate whether the four LMX-MDM sub-dimensions (Affect, Loyalty, Contribution, and Professional Respect) could be predicted when the leaders offered Cognitive Support and provided Knowledge Resources. First, we began with unconditional models for each of the four sub-dimensions to identify any variance (either at individual or group levels). Second, we entered Cognitive Support or Knowledge Resources as predictors in the random intercept models with the Covariate Type of organization (academic, commercial). We compared each empty model to its corresponding random inter-

cept model to determine whether the predictors reduced the amount of unexplained variance.

RESULTS

Table 1 presents descriptive statistics and intercorrelations for the four LMX-MDM sub-dimensions, Cognitive Support, and Knowledge Resources. Three of the LMX-MDM sub-dimensions correlated with Cognitive Support and Knowledge Resources. There was no significant correlation between Loyalty and Professional Respect.

Hypothesis 1

We hypothesised that leaders' provision of Cognitive Support would be positively related to the four sub-dimensions in LMX-MDM. We found support for all sub-dimensions except Loyalty. As is shown in Table 2, Cognitive Support was associ-

ated with Affect (*parameter estimate* = .452, *se* = .070, $p < .05$), Contribution (*parameter estimate* = .470, *se* = 0.093, $p < .05$), and Professional Respect (*parameter estimate* = .409, *se* = .075, $p < .05$).

Hypothesis 1 was thus partially supported, indicating that Cognitive Support is related to followers' liking to work with their leaders, their willingness to contribute to work performance, and their Professional Respect for their leaders. Cognitive Support did not relate to followers' perceptions of leaders' loyalty. Model 1a in Table 2 shows that the group level variance in Affect was restricted to zero (*parameter estimate* = .000, *se* = .000). This means that Affect differs within groups and suggests that there were no systematic between-group differences in followers' liking for their leaders.

Models 3a and 3b in Table 2 show the random effects that revealed that the unexplained variance mostly occurred at the individual level of Contribu-

Table 1. Means, standard deviations and correlations of the four LMX-MDM sub-dimensions, Cognitive Support, and Knowledge Resources.

	M	SD	1	2	3	4	5	6
1. LMX-MDM (global)	5.5	0.7						
2. LMX Affect	5.7	1.0	.71**					
3. LMX Loyalty	5.5	1.0	.62**	.21**				
4. LMX Contribution	5.4	1.2	.70**	.39**	.25**			
5. LMX Professional	5.8	1.0	.67**	.43**	.15	.40**		
6. Cognitive Support	5.7	0.9	.39**	.45**	.06	.36**	.36**	
7. Knowledge Resources	5.2	1.0	.49**	.40**	.15	.36**	.52**	.41**

Note: N = 166. LMX-MDM Item 7 is excluded from LMX Contribution.

*: $p < .05$; **: $p < .01$

Table 2. Effects of Cognitive Support on the LMX-MDM sub-dimensions.

	Affect		Loyalty		Model 1a unconditional		Model 1b Random intercept		Model 2a unconditional		Model 2b Random intercept	
	<i>parameter estimate</i>	<i>se</i>	<i>parameter estimate</i>	<i>se</i>	<i>parameter estimate</i>	<i>se</i>	<i>parameter estimate</i>	<i>se</i>	<i>parameter estimate</i>	<i>se</i>	<i>parameter estimate</i>	<i>se</i>
Fixed Effects												
Intercept	5.673*	0.075	3.067*	0.412	5.470*	0.083	5.044*	0.461				
Organization			0.037	0.136			-0.110	0.169				
Cognitive Support			0.452*	0.070			0.085	0.079				
Random Effects												
Group variance, intercept (Level 2)	0.000	0.000	0.000	0.000	0.135	0.089	0.145	0.089				
Individual variance, residual (Level 1)	0.931	0.102	0.745	0.082	0.794	0.110	0.778	0.108				
Portion of total variance explained by Level 2	0.0%		0.0%		14.5%		15.7%					
Model fit statistics												
Deviance (loglikelihood)	459.223		422.230		455.971		454.462					

Note: (N = 166). Organization: dummy coded Academic = 1 and Commercial = 0. LMX-MDM item 7 was excluded from LMX Contribution.

* p < .05

Table 2, continued. Effects of Cognitive Support on the LMX-MDM sub-dimensions.

	Affect				Loyalty			
	Model 3a unconditional <i>parameter estimate</i>	<i>se</i>	Model 3b Random intercept <i>parameter estimate</i>	<i>se</i>	Model 4a unconditional <i>parameter estimate</i>	<i>se</i>	Model 4b Random intercept <i>parameter estimate</i>	<i>se</i>
Fixed Effects								
Intercept	5.365*	0.101	2.577*	0.545	5.814*	0.091	3.354*	0.443
Organization			0.176	0.195			0.223	0.176
Cognitive Support			0.470*	0.093			0.409*	0.075
Random Effects								
Group variance, intercept (Level 2)	0.132	0.135	0.156	0.120	0.212	0.102	0.236	0.093
Individual variance, residual (Level 1)	1.351	0.188	1.128	0.157	0.809	0.113	0.641	0.090
Portion of total variance explained by Level 2	8.9%		12.1%		17.2%		26.9%	
Model fit statistics								
Deviance (loglikelihood)	535.458		510.529		468.905		439.936	

Note: (N = 166). Organization: dummy coded Academic = 1 and Commercial = 0.
LMX-MDM item 7 was excluded from LMX Contribution.

* $p < .05$

tion. When we introduced Cognitive Support in Model 3b, the unexplained variance at the individual level was reduced (*parameter estimate* = 1.196) compared to the unconditional model (*parameter estimate* = 1.351), indicating that Cognitive Support influences the individual level of Contribution (i.e., it is an individual level construct). In sum, followers who reported that their leaders provided Cognitive Support also reported a greater willingness to contribute to work goals. This association was relatively unaffected by research group membership. In other words, regardless of the research group, when leaders provide Cognitive Support, followers are willing to contribute to work fulfilment.

Professional Respect differed both within and between groups. However, when Cognitive Support was introduced in our model, reductions of unexplained variance in Professional Respect occurred at the individual level and not at the group level (Table 2). This indicates that Cognitive Support explained only individual level differences in Professional Respect. We interpreted this finding to mean that Professional Respect differs both between individuals and between groups, and that the group level variation is unaffected by the amount of Cognitive Support leaders provide. That is, group members within groups differ in the Professional Respect they have for their leaders; at the same time, groups have various degrees of Professional Respect for their leaders. Leaders' provision of Cognitive Support will only affect individuals' Professional Respect for the leader. Group differences in Professional Respect cannot be explained by differences in Cognitive Support since Cognitive Support is effective only at the individual level of Professional Respect.

Hypothesis 2

Consistent with our hypothesis, we found that a research group leader's Knowledge Resources was positively related to the four sub-dimensions in LMX-MDM: Affect, Loyalty, Contribution, and Professional Respect. This lends full support to Hypothesis 2. Table 3 shows that Affect (*parameter estimate* = .380, *se* = .068, $p < .05$), Loyalty (*parameter estimate* = .163, *se* = .073, $p < .05$), Contribution (*parameter estimate* = .421, *se* = .087, $p < .05$), and Professional Respect (*parameter estimate* = .498, *se* = .066, $p < .05$) were related to leaders' provision of Knowledge Resources.

As noted earlier, there were no systematic, between-group differences in followers' liking for their leaders (i.e., in how they rated Affect). With the introduction of Knowledge Resources in Model 1b (Table 3), the reduction in unexplained variance in Affect appeared only at the individual level.

For the LMX-MDM sub-dimension Loyalty, Knowledge Resources somewhat reduced the unexplained variance (Model 2b, Table 3) at the individual level (*parameter estimate* = .760) but not at the group level (*parameter estimate* = .142) when compared with the unconditional model (*parameter estimate* = .794 and *parameter estimate* = .135, respectively).

For the LMX-MDM sub-dimension Contribution, Knowledge Resources reduced the unexplained variance (Model 3b, Table 3) at both the individual (*parameter estimate* = 1.196) and group (*parameter estimate* = 0.093) levels, when compared to the

Table 3. Effects of Knowledge Resources on the LMX-MDM sub-dimensions.

	Contribution				Professional Respect			
	Model 1a unconditional		Model 1b Random intercept		Model 2a unconditional		Model 2b Random intercept	
	<i>parameter estimate</i>	<i>se</i>	<i>parameter estimate</i>	<i>se</i>	<i>parameter estimate</i>	<i>se</i>	<i>parameter estimate</i>	<i>se</i>
Fixed Effects								
Intercept	5.673*	0.075	3.736*	0.352	5.470*	0.083	4.718*	0.382
Organization			-0.079	0.142			-0.172	0.170
Knowledge Resources			0.380*	0.068			0.163*	0.073
Random Effects								
Group variance, intercept (Level 2)	0.000	0.000	0.000	0.000	0.135	0.089	0.142	0.087
Individual variance, residual (Level 1)	0.931	0.102	0.781	0.086	0.794	0.110	0.760	0.106
Portion of total variance explained by Level 2	0.0%		0.0%		14.5%		15.7%	
Model fit statistics								
Deviance (loglikelihood)	459.223		429.994		455.971		450.692	

Note: (N = 166). Organization: dummy coded Academic = 1 and Commercial = 0.
LMX-MDM item 7 was excluded from LMX Contribution.

* $p < .05$

Table 3, continued. Effects of Knowledge Resources on the LMX-MDM sub-dimensions.

	Contribution				Professional Respect			
	Model 3a unconditional		Model 3b Random intercept		Model 4a unconditional		Model 4b Random intercept	
	<i>parameter estimate</i>	<i>se</i>	<i>parameter estimate</i>	<i>se</i>	<i>parameter estimate</i>	<i>se</i>	<i>parameter estimate</i>	<i>se</i>
Fixed Effects								
Intercept	5.365*	0.101	3.147*	0.456	5.814*	0.091	3.189*	0.346
Organization			0.046	0.192			0.059	0.158
Knowledge Resources			0.421*	0.087			0.498*	0.066
Random Effects								
Group variance, intercept (Level 2)	0.132	0.135	0.093	0.115	0.212	0.102	0.146	0.074
Individual variance, residual (Level 1)	1.351	0.188	1.196	0.166	0.809	0.113	0.600	0.084
Portion of total variance explained by Level 2	8.9%		7.2%		17.2%		19.6%	
Model fit statistics								
Deviance (loglikelihood)	535.458		512.529		468.905		417.345	

Note: (N = 166). Organization: dummy coded Academic = 1 and Commercial = 0.
LMX-MDM item 7 was excluded from LMX Contribution.

* p < .05

unconditional model (*parameter estimate* = 1.351 and 0.132, respectively). This means that Knowledge Resources was related to both individual and group levels of followers' willingness to contribute to work, but the differences in Contribution were between individuals, rather than between groups.

When Knowledge Resources was entered with Professional Respect as the dependent variable (Model 4b, Table 3), there were unexplained variances at both individual (*parameter estimate* = 0.600) and group levels (*parameter estimate* = 0.146). This means that individuals and groups differed in Professional Respect, even after taking Knowledge Resources into account. In comparing Model 4b to the unconditional model, we found that Knowledge Resources reduced unexplained variance at both the individual and group levels (Table 3). Knowledge Resources positively related to the level of Professional Respect followers have for their leaders (at individual and group levels).

DISCUSSION

The aim of this study was to propose and examine antecedents of LMX – Cognitive Support and Knowledge Resources – among Swedish academic and commercial researchers. In the study, we increase the knowledge of how Swedish research group leaders can enhance the quality of leader-follower relationships. Moreover, we suggest that the findings of the study apply to leadership in higher education and other creative knowledge environments. We contribute to multidimensional LMX theory by examining the antecedents in relation to the four LMX-MDM sub-dimensions. Leaders' Cognitive Support and leaders' provision

of Knowledge Resources were regressed on the LMX-MDM sub-dimensions Affect, Loyalty, Contribution, and Professional Respect.

Leaders can offer Cognitive Support and provide Knowledge Resources in order to help followers achieve their goals and complete their tasks. We found a relationship between the Cognitive Support and Knowledge Resources leaders provide and their followers' ratings on liking to work with their leader, their willingness to contribute to work, and the professional respect they have for their leaders. Moreover, we found a relationship between the Knowledge Resources leaders provide and followers' perceptions of their leaders' loyalty. These findings are consistent with our hypotheses. This means that leaders in research settings where followers are well-educated and/or specialized, such as academic and commercial research settings, should behave in ways that facilitate task completion and goal achievement. In this way, leader-follower relationships are enhanced.

In research settings, leaders who provide Cognitive Support during idea generation, idea elaboration, and idea implementation help their followers achieve their work goals. We found followers in such settings are more likely to like and trust their leaders and are more willing to work harder. Such followers are also likely to have more professional respect for their leaders if their leaders provide them with the Cognitive Support that leads to the creation and implementation of successful ideas. Similarly, by providing access to Knowledge Resources, valuable contacts, and physical resources, leaders help followers achieve their work goals.

In sum, this study contributes three crucial findings to LMX theory. First, it confirms that LMX is multidimensional, which means that leaders and followers exchange a number of different social and task-related goods. More specifically, we show that each of the four LMX dimensions in LMX-MDM suggested by Liden and Maslyn (1998) – Affect, Loyalty, Contribution and Professional Respect – were empirically supported. Second, this study supports the idea that LMX theory is linked to cognitive antecedents, specifically to cognitive antecedents aimed at helping followers achieve their goals and complete their tasks. This has implications for leadership in higher education and other creative knowledge environments. Followers in such settings are eager to complete their work successfully. Therefore, it is not surprising that the LMX-MDM sub-dimensions of Contribution and Professional Respect were associated with cognitive aspects of leadership. Leaders in academic and commercial research groups should therefore adopt leader-follower behaviors that are explicitly task-oriented. However, we show that the cognitive antecedents are also linked to the socially related aspects of leadership (i.e., LMX-MDM sub-dimensions of Affect and Loyalty). This means that the social side of leadership should not be neglected. Finally, this study was conducted in a research setting that supports the significance of cognitive antecedents to LMX in creative knowledge environments.

Limitations of this study

It cannot be claimed with certainty that Cognitive Support or Knowledge Resources are antecedents of LMX. Rather, they are more likely correlates that can reinforce one another through processes of

successful leader-member exchanges. In accordance with LMX theory, dyadic relationships develop gradually through exchanges when leaders and followers prove themselves to one another. However, we argue that our findings suggest that leaders can and should take proactive actions in establishing beneficial conditions that help followers succeed.

In this study, we controlled for group level statistical dependencies. However, we usually sampled only two members in groups ranging from sizes of 2 to 20. This made the reliability of the group level measures of LMX, Knowledge Resources and Cognitive Support questionable.

Conclusions and implications

Leaders' provision of Cognitive Support and Knowledge Resources related to the sub-dimensions of LMX-MDM: Affect, Loyalty, Contribution, and Professional Respect with the exception of a failed association between Cognitive Support and Loyalty. We therefore conclude that research group leaders can take actions that improve their LMX quality with followers by providing them with Cognitive Support and Knowledge Resources. The implication for higher education and other creative knowledge environments is that leaders should behave in ways to aim to help followers complete their tasks and achieve their goals. By taking such actions, the quality of leader-follower relationships will improve. Followers will perceive leaders as loyal (Knowledge Resources only), will have greater liking for working with their leaders, will have greater respect for them, and will be more willing to contribute to work goals. This find-

ing is important because improved LMX quality may lead to numerous positive work outcomes for the individual follower as well as for work groups (cf. Gerstner & Day, 1997).

Future research

In this study, we focused on leaders' actions that mainly support the task-related aspects of LMX in research settings since leader expertise is crucial in research. Comparative studies that investigate

more or less knowledge intensive settings jointly might reveal leadership differences in different settings. Researchers may examine if leaders' actions directed at the social aspects of the relationship are equally successful in predicting LMX-MDM sub-dimensions in research settings. There is a need for research that uses structural equation modelling approaches in order to establish LMX quality as a mediating variable between antecedents and outcomes. ●

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CHAPTER X

DELAYED ENTRY AND PROLONGED STUDIES IN FINNISH HIGHER EDUCATION POLICY TOWARDS EVIDENCE-BASED POLICY MAKING?

Sakari Ahola

This chapter looks at the concept of evidence-based policy in a specific higher education policy domain related to study times and prolongation. During the last decades several reforms have been initiated including occasional research. Practically nothing has happened, however. One is thus inclined to question whether there is lack of evidence, lack of understanding of the evidence, lack of suitable measures, or are the objectives themselves somehow flawed or unrealistic?

Keywords: *Higher education reform, access to higher education, Finland*

Introduction

The history of discussing study progression and prolongation in Finnish universities is long. Every time the subject has surfaced, problems have been detected. During the 1960s, in the era of rapid educational expansion, a more coherent higher education policy took shape, and specific regulation mechanisms were developed addressing also the questions of prolonged studies and dropout. The 1960s and 1970s were, however, strongly concentrated on mastering and administering the expansion, and securing the required resources as student numbers kept growing.

In the 1980s a special problem emerged which bears important ramifications to the present day situation. The roots of this problem, referred to as the 'matriculation backlog', run to the late 1960s when upper secondary education grew much faster than study places at the universities, producing an excess number of students with the matriculation certificate having difficulties in entering the universities. Thus, in addition to prolonged studies we have a problem of prolonged transition to higher education. The polytechnics (*Ammattikorkeakoulu*), founded in the beginning of 1990s, were expected to relieve the backlog which, nevertheless, has been growing persistently up till now.

The problem is not, however, restricted to the study times as such but extends to the length of Finnish working careers which are considered too short from the point of view of state economy. In this respect reforms targeted at transitions and study times are part of wider economic policies aiming at extending working careers both from the beginning and at the end.

During the last decades several ministerial committees and working groups have tackled the issue devising action programs in order to make the transition and study processes more efficient and reduce study times. These documents have proposed various factors affecting students' studying and study paths. Information informed by research has been used occasionally, although more implicitly than explicitly. Reference is made mostly to the system level statistics and indicators derived from the OECD, Eurostat, or European Commission's various documents. (MoE, 1998; MoE, 2003; MoE, 2010.)

From the reports a simplified 'problem definition' can be deduced, illustrating the ministerial way of thinking, and their concentration on certain problems and reforms which have been on the agenda practically the whole time. In short, the way of thinking looks like this:

- Transition from secondary to tertiary education takes too long
 - problems in the admission system
 - vague and/or misguided educational choices
 - unnecessary gap year(s)

- Studies take too long
 - working while studying
 - inflexible degree structures and study arrangements
 - too heavy and stuffed requirements (syllabus)
 - low motivation due e.g. the prolonged transition phase
 - various personal problems of students
- Too old graduates and, thus, too short working careers

There exists a great variety of research on students, studying and other aspects relating to the issues at hand. As pointed above, research-based findings are not particularly pronounced in the ministerial documents. Notwithstanding, the Finnish government and ministries have adopted the notion of evidence-based policy (EBP). Basing educational policies and reforms on research and evidence is of course no novel idea – and who would want them not to be based on evidence? What is new is the strong rhetoric of evidence basedness, and the determined machinery i.e. measures, initiatives, networks, organizations etc. in creation in order to enhance knowledge transmission in the name of EBP. We might even speak about the evidence-based policy movement (cf. Young, Ashby, Boaz & Grayson, 2002). In the Finnish case, regardless of constant reforms, practically nothing has happened. One is thus inclined to question whether there is lack of evidence, lack of understanding of the evidence, lack of suitable measures, or are the objectives themselves somehow flawed or unrealistic?

Evidence-based policy making – some starting points

In addition of being a governmental buzzword, the concept of EBP describes a new approach to the relationships between the producers and users of research. From the wider historical perspective the connection between the two, and attempts to manipulate it, have always existed. Governments' interest in and promotion of EBP today is consistent with the public sector's preoccupation with efficiency and effectiveness. It is, thus, part of the ideology of New Public Management (Head, 2008). In this respect the slogan of Tony Blair's labour government in the UK is telling: "what matters is what works". It signals the end to ideologically driven political decision-making in favour of more evidence-based rational deliberation (Nutley, Walter & Davies, 2009). In addition to the question of 'what works', emphasis in NPM is on 'value for money'.

Much of the EBP literature is preoccupied with the mediations and mediators between research and policy (e.g. Oakley, 2002; Cooper, Levin & Campbell, 2009). The simplified idea is that if we have enough high level research results which are gathered and summarised in an appropriate way, and served properly to the political decision makers, things fall into place. This has also been a fruitful breeding ground for various agencies acting as brokers of refined research information to the political processes. What is missing, however, is reasonable understanding and analysis of the broader social and political contexts modifying and affecting this mediation. The social context of knowledge production is emphasised, for instance,

in Levin's (2004) model of research impact. According to Levin, it determines what is accepted as knowledge, and includes how current issues and problems are defined, our different ways of thinking, popular prejudices, and conventional wisdom.

The system of research production is based on its own specific ideas on what counts as knowledge, and problem solving is based on sound basic research where researchers lean on the traditions and starting points of their specific fields of study. This kind of a 'charmed' vision of the functioning of science has been challenged, of course: "What accounts as knowledge in a given research community is based on negotiated reality in exactly the same way as the objects of politics. There is no science without interest, and no politics without analytical reflection." (Albæk, 1995, p. 96.)

In the era of NPM, also policy-making is required to be efficient and effective, and the notion of EBP fits well to this overall discourse. We can ask, however, to what extent this ideology is based on a misconception of the nature of the policy process which is rarely characterized by rational evidence-based decision-making (Young et al., 2002). According to Parsons (2002) policy making in liberal democracies is more like 'muddling through' the complex and uneven terrain of social problems than rational use of the evidence base produced by research (cf. Sanderson, 2002).

In addition to the occasional 'analytical reflection' mentioned above, the 'messy realities' (Ball, 1990, p. 9) of policy-making includes various influences of conflict, resistance, pressure, compromise, and

error. On the other hand, research, especially social research, is seldom so unequivocal that it cannot be used to back up almost any position (Weiss 1995).

In order to give some analytical shape to the 'messy realities' I will use the typology by Weiss (1979), describing different ways to structure and analyse the research—policy relationship. They are ideal types in the sense that real political processes, which can be long and difficult, are typically mixtures of the different types. Sometimes even just reaching a bearable political decision becomes the main objective (Laukkanen, 2001).

The "knowledge-driven model" bases on functional logics of natural sciences. In this model policy can be seen as a natural outcome in the chain from basic research to applied research to problem solution (Weiss, 1979, p. 427). As an example, many important political decisions in the field of environment protection follow this logic (Weingart, 2000). In social sciences or educational research this model is clearly a rare one. One example could be the introduction of human capital theory, and the consequential empirical research on the effects of educational investments on national economies which, on their part, boosted educational expansion and, in Finland, strengthened the policies of educational equality.

The "problem-solving model" is more familiar to us engaged in practical educational research. According to this model, research follows from politics. Solutions to various social problems on the political agenda are sought for e.g. by setting up targeted research projects. The process is usually initiated

when there is not enough information on the detected problem or there are competing interpretations of and solutions to the problem. According to Weiss, this model carries an implicit assumption that there is a consensus over the objectives themselves (Weiss, 1979, p. 427). This again highlights the social context of knowledge production referred to above: how are the problems themselves defined, and who defines them?

The "interactive model", according to Weiss, is not just a combination of the previous two, but describes the wider social field on which both the problems and the objectives are constantly negotiated and fought for. Research enters the field in different phases and roles, and becomes part of all the other sources of information used by politicians and decision makers during the process (Weiss, 1979, p. 429). The planning and developing of Finnish basic education, the Comprehensive School, during the 60s and 70s, with discussions on differentiation and tracking come close to this model. In the long process research was produced by different actors, it was used in different forms and it had different roles in the process but, at the end, it had no bearing on final decisions (Lampinen, 1992).

In the "political model" decisions are made according to the specific logic the political process itself. The process can be 'messy muddling' or a simpler one where stands are taken by the parties involved, following their political priorities, and final decisions arise according to the parliamentary composition. In this type of a world research results do not shake much the stands already taken (Weiss, 1979, p. 429). Finnish educational policy

making exhibits features of this model also. In many cases decisions seem to be solely political, and research evidence, if there is any, is either ignored or interpreted according to the already established stands in order to neutralise opponents and convince supporters. As described in the introduction, the stances of the Ministry of Education are also quite firmly 'in a rut' regarding the study times problematic.

The "tactical model" differs from the political model so that research evidence itself becomes a piece in the political game. It does not matter how well the research or the findings apply to the questions at hand, but how they can be used to prop up partisan stands. It is also common to refer to research in a general level, not actually knowing the results or if there is any research at all. The usual delaying tactics is to convince others that "we're doing research on it right now" (Weiss, 1979, p. 429). The usefulness of the tactical model is emphasised in the current post-modern society described by uncertainty and contingency. These undermine the status of 'firm knowledge' and challenge the basic premises of EBP itself (Sanderson, 2002).

Finally we have the "enlightenment model" (Weiss, 1979, p. 429). It comes close to the problem solving model, but in the enlightenment model the effects of research are indirect. Instead of single observations and outcomes of targeted and applied research, policy making is affected by the general conceptual and theoretical models produced by basic research. They do not necessarily say anything about the individual social problems at hand but describe the larger social system where

they are situated. One example is the above mentioned human capital theory yielding to policies where more education is considered always to be a blessing. The enlightenment model assumes that research and the consequent technological development are progressive and add to the common good. The idea is that truth will always triumph (Weiss, 1979, p. 430). The enlightenment model suits well for the critical social scientist who sees the role of science and research to be understanding, questioning, and empowerment, instead of consulting politicians and decision makers (cf. Young et al., 2002).

Notwithstanding the utopian overtone, real life educational policies have a lot of thought patterns conforming to the enlightenment model. Weiss, however, points out to its potential flaws and deficiencies. There is, for example, no guarantee that the general ideas and theoretical generalisations transferred indirectly into the policy sphere are valid. Many ideas taking wind in everyday political discussion are imperfect, straightforward, or simply false (Weiss, 1979, p. 430). For instance, how well does the theory of rational choice describe educational choices, or how useful is human capital theory outside the field of economics, in explaining e.g. educational selection? In the case of Finnish speeding-up policy, and explaining student behaviour and study progression, all meta-theoretical thinking seems absent. There is a tendency, however, to put the blame more often on individual students than on the system. Furthermore, behind the educational policies lurks a powerful neo-liberal ideology where economic profitability and efficiency are the main drivers.

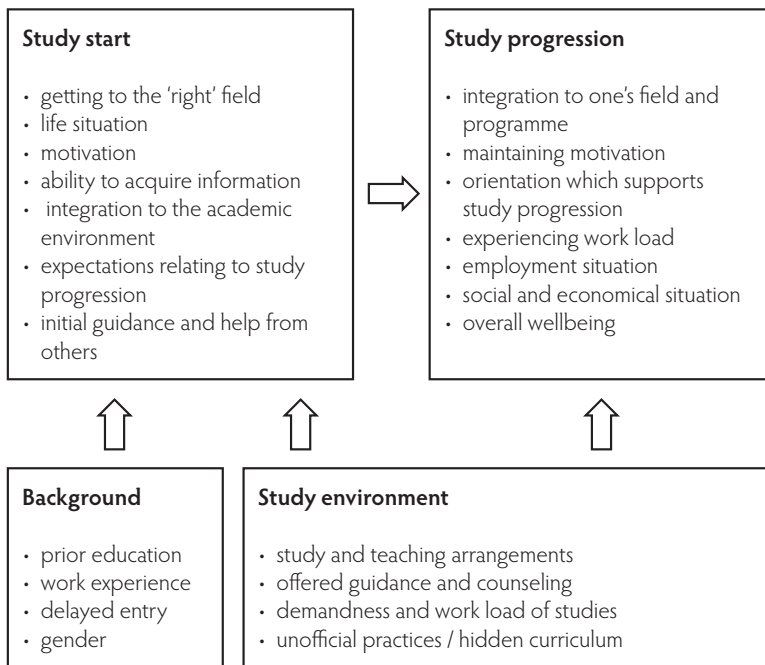
Winding Study Paths

The empirical evidence presented below comes from a student follow-up study conducted at the Research Unit for the Sociology of Education (see Lahti, 2009). The study was directed to a representative sample of university students who began their studies in 2005 in the new two-cycle degree structure, and it was part of a larger evaluation of the implementation of the Bologna process in Finland financed by the Ministry of Education (see Ahola 2012). Two follow-up surveys were conducted in 2008 and 2009. The main findings of the study regarding the issue of delayed studies and prolongation are summarised in figure 1 (Galli & Ahola, 2011, p. 289). Without going into

the details, the main point is to illustrate the long and complicated path from students' original decision to seek for university level studies to eventual graduation. The factors involved in this winding journey combine individual attributes, transitional mechanisms, and extrinsic structural elements. Its complex functional mechanisms are not easily affected by simple rectilinear policy measures.

During the evolution of the speeding-up policy agenda the individual factors in the model have been in various degrees under political and academic scrutiny. For instance, working while studying in relation to reforms on student aid; gap years in relation to reforms on the admission system; work load in relation to curriculum planning and

Figure 1. Model of factors affecting study progression.



development, etc. There is, however, more hypotheses than evidence on how certain reforms would affect student behaviour. Furthermore, we lack research and understanding on the functioning of the system as a whole.

The context of knowledge production – asking the right questions

The model presented in figure 1 highlights the fact that education is basically still an apparatus of social selection. The role of selection has transformed, though, as the university has evolved from an elite institution, recruiting only a few percentages of the age grade, to a mass system with an intake of half or more (Kivinen, Hedman & Kaipainen, 2007). In the Finnish 'Nordic social-democratic' policy tradition emphasising equity and equal opportunity, the selective mechanisms operating in the system are not, however, properly accounted for (cf. OECD 2006). The expansion itself, especially in the Finnish case, involves an interesting paradox as already pointed out above. Namely, in spite of the increasing number of study places, the race for higher education has grown ever tighter.

In several occasions (e.g. MoE 2010) the Ministry of Education has pointed out that the number of places in higher education should suffice. At the moment there are about 48 000 starting places which is 1.5 times the number of upper secondary school leavers, and 70 % in relation to the whole cohort of 19 year olds. For the Ministry the problem is one of allocation, and the blame is mostly on the flawed admission system and the 'wrong' educational preferences of the young. What is strangely missing from the equation is the persis-

tent problem of the matriculation backlog.

At the moment more than three times the number of the annual matriculation cohort applies for education every year. From them slightly over half gets a study place in the tertiary or secondary level. The rest remain in the backlog trying to find employment or engaging in other activity, waiting and preparing for the next year admissions. The longer the time in the backlog gets the harder it seems for the applicant to win a place.

This situation has remained relatively stable over the past 15 years or so. Furthermore, the difficulty to get in has generated another problem. Namely, roughly a quarter of the newly matriculated do not apply for any degree-leading studies, intensifying the problem of delayed entry. The reasons are many. Some want to keep a voluntary gap year and see the world, for instance, after the demanding and tiresome matriculation examinations. Others, knowing that higher education admissions are even more demanding and tiresome, skip them, and invest in preparing for the next round, using e.g. expensive prep courses.

Regarding the persistence and magnitude of the backlog problem, and its cumulative effects on study times and prolongation, it is highly irregular that the whole issue is almost absent in ministerial deliberations.

From evidence to policy – where can one have effect?

What kind of factors, then, affect study times and progression, and what kind of conclusions we can

make vis-à-vis the policy of speeding up studies and the measures of the Ministry? In our study, the most clearly pronounced differences in study progression and prolongation were found between different student types. Without going deeply into the theoretical or methodological background of the typology, we differentiated, first, between three groups according to students' study orientation: the study-oriented, the working-life-oriented, and the detached, i.e. those who had weak orientation to their studying and also weak working-life identity. Secondly, those who experienced high work load, called the 'burdened', were identified. This yielded to six student types described in table 1.

The difference between the opposite ends is quite clear. From the burdened detached 66 per cent had not completed their bachelor degree in the required time frame. In the case of the unbur-

dened working-life oriented, the share was only 28 per cent. Furthermore, the group of burdened students is relatively small. The burdened detached represent only 6 per cent while the unburdened study-oriented make up half of the survey respondents. This indicates that the problems are accumulated to a relatively small group.

There are several potential reasons why students may become detached from their studies. Wrong choice of the field of study in connection with initially weak or amorphous career plans, changes in life situation including growing up, moving from home and starting a family, weak adaptation and integration to the academic life and community, etc. It is evident that structural reforms can have very little influence on this kind of matters. Experiencing high work load and burden, on the other hand, derive as the abilities and motivations of the student meet the requirements of academic studies.

Table 1. Prolonged studies by student type.

Student type	N	%	Prolonged %
Unburdened study-oriented	507	51	32
Unburdened working-life-oriented	127	13	28
Unburdened detached	131	13	52
Burdened study-oriented	111	11	44
Burdened working-life-oriented	56	6	55
Burdened detached	59	6	66

Prolonged = first cycle degree not earned in four years (Galli & Ahola, 2011, p. 238)

Speeding up studies and decreasing dropout were also among the main goals of the Bologna reform in Finland. Universities, faculties, and departments did a lot of work in order to get the new degree system running smoothly. The bachelor curricula were completely renewed, using e.g. core qualifications analysis, and unnecessary and outdated elements were removed in order to balance workloads with earned study points. According to the national evaluation of the reform, the success was only partial, and some informants even claimed that degrees had swollen and work load increased (Ahola, 2012).

In the survey, one of five reported having too heavy work load, and 17 per cent found studying too demanding. For some demanding and strenuous studies can be a challenge while for others it causes stress, delays, and withdrawal even. The same holds for working while studying. Some students can capitalise on it while others experience extra burden and delays. On overall there was no association between working and prolongation in our data.

Thus, the overall picture seems to be the following: Roughly a fifth of the students experience problems of various kinds in some point of their studies. With a smaller group problems tend to accumulate and become deeper, and an even smaller part does not manage at all. In other words, the great majority of students seem to manage through their studies quite well – it just takes more time than the current higher education policy arithmetic suggests.

Conclusions

If we consider the implications of figure 1 to policy, several conclusions can be drawn. The first one relates to the so-called 'needle in the haystack problem'. There exists a considerable amount of research and evidence on the various individual issues relating to study paths and progression. They are sometimes consistent and at times contradictory. We are lacking, however, a deeper understanding of the functioning of the system as a whole. In this respect, our Ministry's problem definition is simplified, and not very 'enlightened'. Furthermore, the definition totally lacks the social selection mechanisms operating in the transition phase, and the effects of the matriculation backlog which have far-reaching consequences to individual students and their progression in the system. The almost obsessive use of indicators in current policy making further obscures the picture – can we see the forest for the trees anymore? There should be more caution in the production and use of indicators, and more analyses and understanding of the actual phenomena behind them.

Secondly, it seems quite clear that in the prolongation issue the political model has superseded serious evidence-based policy making. Certain research evidence is filtered out or ignored, and the readiness to acknowledge facts is low. A ready-made set of remedies, mostly structural in nature, is administered, year after year, regardless of poor or contradictory results. It is important, thus, to concentrate efforts to those issues and problems where effects in principle can be expected. Many of the problems behind study progression, mentioned in figure 1, are most effectively solved on

the grass roots level, in the institutions, faculties and departments. There is constant effort in the HEIs to enhance studies and study processes, to develop the learning environment, and to enable degree completion in due time. The Ministry of Education ought to trust the universities and their ability to solve the problems from their own premises, and concentrate on securing universities' overall operational preconditions and resources.

Third observation relates to the need of more critical implementation analysis and policy evaluation as a regular and structured part of EBP. In the Finnish case, the continuous reforms on the admission system serve as an example. Can the proposed reforms deliver expected results concerning delayed entry and progression, or is it only wishful thinking? If students are selected using secondary school marks instead of current entrance examinations what happens to motivation? Careful analysis of previous reforms may offer partial answers to questions like these (cf. OECD, 2007). One example of a thorough evaluation is the implementation of the degree reform (Bologna process) in Finland, which included also objectives for reducing study

times and dropout. According to the evaluation, the aims were initially oversized, and they were not reached. Instead, the evaluation revealed serious lack of information on the whole issue (Ahola 2012).

Finally, in spite of the critical comments above, it must be acknowledged that the Ministry of Education has made considerable effort towards solving the problems of delayed entry and prolonged studies. At the same time, however, the problem definition has resided firmly in the hands of the Ministry and its working groups. Research, on the other hand, has progressed along its own, more or less autonomous routs. The disciplines involved and approaches applied are numerous as sociologists, for instance, are interested in social selection, psychologists deal with questions of motivation, and educational scientists investigate guidance and counselling – among other things. The simplified idea that with proper knowledge management and mediation research results will transfer into policy seems questionable at the moment, at least regarding this policy domain. ●

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CHAPTER XI

STRATEGIC CHANGE IN THE PERIPHERY: THE CASE OF THE UNIVERSITY OF OULU

Rómulo Pinheiro

This chapter traces the short-term effects of recent Higher Education reform processes at the institutional level, by focusing on the case of a mid-size, comprehensive university (Oulu) located in a relatively peripheral region and with the mandate to serve the Northern most parts of the country. The first part of the chapter provides a brief description of the external conditions (national and regional levels) under which the case university operates. It then moves on to illustrate the strategic steps (central and unit levels) undertaken by Oulu in order to adequately respond to changes in its operational and regulative environments. The chapter concludes by highlighting the main lessons learnt and by suggesting avenues for future research.

Keywords: *Regional policy, higher education, Northern knowledge-structures, Finland*

Brief historical snapshot

The Finnish higher education (HE) sector has, in the last two decades or so, been the target of a series of government-led reform efforts. Starting in 2009, a series of voluntary institutional mergers were exercised in anticipation of the passing of a new, and rather disruptive, regulative framework (Aarrevaara, Dobson, & Elander, 2009). From a policy viewpoint, the primary rationale or logic (Maassen & Stensaker, 2011) behind these “modernisation” measures was that of increasing the efficiency and effectiveness (c.f. Gornitzka, Stensaker, Smeby, &

De Boer, 2004) of the sector as a whole. In addition, teaching quality and research excellence, particularly amongst universities, were also targeted (Turunen, 2009). Under the auspices of the new Universities Act (in effect since 2010), the legal status of universities has changed as to strengthen institutional autonomy in areas like financial management and staff recruitment. As a consequence of the mergers, the number of universities was reduced from 20 to 16. Of these, the majority (14) are now independent corporations under public law, with the remaining as private foundations. All in all, the latest round of reforms targeting the

university sub-sector aim at achieving three main goals: (i) improve universities' capacity to react to changes emanating from their external environment; (ii) diversify their funding base; and, (iii) leverage their global competitiveness, by attracting scientific talents and international funding (Aarvevaara et al., 2009).

In order to grasp current system dynamics and institutional dispositions, it is paramount to engage into a short historical incursion. In the context of the government's recovery strategy to tackle the deep economic recession of the early 1990s, universities and polytechnics were given specific roles in the implementation of a nation-wide program aimed at transforming Finland into a leading information society (Hölttä & Malkki, 2000). Under the new innovation regime initiated in the mid/late 1990s, a special emphasis has been given to the nurturing of regional systems of innovation, substantiated around triple-helix arrangements involving HE institutions, regional governments and local industry (Lester & Sotarauta, 2007). In order to safeguard the basic operations and core activities of universities, the strategy adopted by the Ministry of Education and Culture was centered on the allocation of additional resources supporting regional engagement (Nummi, 2007; Srinivas & Viljammaa, 2007). In order to guarantee integration and coordination amongst various local actors, a regional strategy (2003–2013) for the HE sector was devised at the central level. Amongst other aspects, it is argued that the country's welfare and global competitiveness rest on the continued vitality and innovativeness of its regions, supported by the central government's commitment towards maintaining a regionally-comprehensive provision

of education and research that actively supports regional development (Ministry of Education and Culture, 2004).

The Changing Environment

The area known as Northern Finland encompasses the administrative regions of Lapland, Northern Ostrobothnia and Kainuu with a total population of 652 thousand inhabitants, about 12% of the entire country. Developments in the last half a century have been characterised by a gradual shift from a predominantly agricultural society towards increasing industrialisation around pipe-related industries (pulp, paper, chemicals) and natural minerals (metal and mining). In the 1980s and 1990s, the decline of the pulp and paper industries resulted in the modernisation of the regional economy (mid-1990s onwards) around the Information and Communications Technologies (ICT) sector. Notwithstanding, uneven developments have gradually led to the rise of local economic clusters. The cities of Tornio (Lapland), Raahe (Northern Ostrobothnia), and Kajaani (Kainuu) represent the stronghold for manufacturing activities, whereas the fast emerging high-tech sector (wireless, electronics, health, bio-tech, environment, etc.) is anchored around the municipality of Oulu, the largest urban area in the region (200 thousand inhabitants) and its de facto economic capital.

When it comes to the main socio-economic challenges facing Northern Finland, these include, but are not limited to: the desertification of rural areas, as a result of youth migration to major urban centers; the declining interest of upper secondary pupils on scientifically-related subjects such as math

and physics; the diversification of the regional economy, as a means of decreasing its dependency on dominant sectors/players like ICT and Nokia; the further development of entrepreneurial structures, including access to venture capital; increasing global competition (primarily from Asia and Eastern Europe) around non-knowledge intensive industries like pulp/paper and mining; financial difficulties (budget deficits) facing the majority of local governments across the region; labor market shortages across the service and business sectors; etc.

Turning now to the regional HE landscape, in addition to a number of university consortia involving various local actors, Northern Finland is host to 6 publicly-funded HE institutions, of which two are universities. The majority (4) are located in the largest urban centers in the region, the cities of Oulu (Northern Ostrobothnia) and Rovaniemi (Lapland). In terms of regional spread, two institutions are located in Northern Ostrobothnia, three in Lapland and one in Kainuu. In 2011 about 38 thousand students were actively enrolled in HE across the region, 53% of whom undertook university-level studies (Statistics Finland). Regional enrollments across the university and polytechnics sub-sectors represented 12% and 13% of national enrollments, respectively. Anecdotic accounts indicate that about 75% of all graduates from the University of Oulu, by far the largest HE institution in the region, find employment within Northern Finland (Pinheiro, 2012a). As for professional staff, in 2009 more than 5,000 individuals were employed by the regional HE sector, the majority of whom worked at the two university establishments in the region, at Oulu and Rovaniemi.

Recent changes in the legal framework regulating the HE sector are having an impact on the structural arrangements of regional HE institutions. This, in spite of the fact that, contrary to what has happened elsewhere (Aarveaara et al., 2009), no formal mergers amongst regional providers have been exercised. In Oulu, initial suggestions by regional actors for merging the university with the local polytechnic were vividly rejected by the academic staff at the former institution, the main argument being the latter's general lack of research expertise of the basic type. The Ministry of Education has urged HE institutions across the country to increase their strategic collaboration with relevant knowledge actors at the regional level, including deepening the relationships between local universities and polytechnics (Ministry of Education and Culture, 2004).

The University of Oulu

Path-dependencies

The idea of establishing a university in the city of Oulu, the capital of Northern Ostrobothnia, goes back to the early 1900s, but it took about six decades to materialize. In 1958, after approval by Parliament, President Kekkonen signed the Oulu University Act, marking the official foundation of the University of Oulu (Oulun Yliopisto, OY). The decision received widespread support from all parties at the regional level, certain national constituencies like the agrarian party, in addition to a number of influential public figures, including members of the central government including the President himself. As for the domestic academic establishment, itself accustomed to a substantial

degree of self-government and autonomy, it reacted rather negatively, approaching the new university as, "an illegitimate child conceived in dubious political circumstances and with doubtful chances of functioning satisfactorily or successfully." (Salo, 2003, p. 5) Upon its inception, OY consisted of three units: faculties of philosophy and technology and a teacher education college, enrolling about 400 students.

Regional mandate

The role of regional constituencies in the initial planning and organization of academic activities was kept to a minimum, despite the fact that many members of the academic staff (e.g. within technology) possessed extensive connections with the local industrial establishment. Internal (university) accounts shed light on the fact that, over the years, certain regional constituencies expressed their concern towards a certain distance from the side of academic audiences, somewhat resembling the classic model of 'ivory tower' adopted by the older ("classic") universities at Helsinki and Turku. A series of important, historical developments have paved the way for the institutionalization of the regional mission (consult, Pinheiro, 2012a). The decision, by OY's board, to establish faculties in the fields of medicine, technology, and the humanities and to consolidate existing regional structures in the area of teacher training were, to a large extent, a result of the strategic importance attributed to regional imperatives.

In the realm of research, during its initial stages of operation, OY's regional mission was primarily exercised around the choice of topics by individual

academics (Salo, 2003). Gradually, the attention paid to regional dimensions became reflected in a number of structural and programmatic initiatives (Lajunen, Aaltonen, & Koivunen, 1999). Perhaps the most compelling example lies on the various joint, planning activities and strategic alliances between the university, local government, and industry from the mid-80s onwards, in the context of knowledge transfers and innovation. The establishment of business studies in the 90s, supported by industry-sponsored professorships, contributed to an increasing acceptance (favorable public image) of the university by regional industry. More recently, as recognition of its value to the region, the Oulu municipality donated Euro 1 million to the university. This was followed by a gift (Euro 1.8 million) by Nokia, whose (former) mobile phone division has for long been based in the city of Oulu. The image of the university throughout the region cannot be dissociated with the fact that, as a project of regional policy (Pinheiro, 2012b), OY has been rather successful in providing Northern Finland with a cadre of highly skilled professionals; doctors, nurses, teachers, engineers, public administrators, business entrepreneurs, etc.

Institutional profile

Today, OY is a multidisciplinary academic entity composed of six faculties – humanities, education, science, medicine, technology, and economics and business administration – spread across two main campuses located in the vicinity of the city of Oulu. In 2012, the university enrolled close to 16 thousand students (13% as first year) and offered more than 2,600 degrees. Of these, 43% were first cycle, 49% were at the master's level and 4.6% as

PhD degrees (OY, 2013a). OY employs close to 3,200 staff, 59% of whom are dedicated to core, teaching and research activities. The number of scientific publications (2012 figures) was 2,350. The largest academic units are the (3) "mega faculties" of technology, science, and medicine, which, combined, enroll the bulk of undergraduate and postgraduate students. In 2009, these units awarded close to 60% of all degrees and employed 87% of OY's staff. As for its research profile, in the last two decades the university has been developing capacity around three strategic areas: information technology and wireless communications; biotechnology and molecular science; and, northern and environmental issues.

When it comes to internal governance structures, substantial changes have been made as a result of recent policy reforms (above) which have culminated in the changing of the university's legal status from a public institution into an independent corporation operating under public law. Amongst other things, this has meant that OY's staff has ceased being civil servants attached to governmental structures. The university's central steering core (Clark, 1998) is composed of the Rector and his two deputies (education and research), a Board of Directors (10 members, half external), a University Collegium composed of 20 internal members (9 academics, 5 administrative, 6 students), in addition to an administrative support structure, headed by 8 senior officers, responsible for areas ranging from academic affairs to research services to human resources. As far as the central administration is concerned, OY has had a long history of leadership continuity since the current Rector, a trained chemist, has been in charge since the mid-1990s.

Strategic platform

The university conceives of its current mission that of further advancing the level of internationally high ranking research, education and culture; in order to strengthen skills that increase well-being on the one hand, and secure the availability of highly educated labour and research personnel in its region on the other (OY, 2013b, p. 3). The current strategic platform (2012–2015) sheds light on the university's multidisciplinary and international nature. The ambition (vision) is that of being a strong science-based university that is also a pioneer in innovations. Its guiding principles (values) are community, pioneering and partnership. The central administration is keen to emphasise the alignment between strategic aims and external (governmental) priorities in the light of recent changes in the ways in which public funds are distributed to Finnish universities (ibid., p. 5). Fundraising and community relations have recently become an integral component of OY's regular activities. Given its medium-size, and the need to prioritise resources and develop new competences, a special emphasis is put on a few specialised research areas where the university can become globally competitive. As for teaching, the strategy stresses that the aim is to provide students with professional and scientific knowledge as well as working life skills such as team- and group- work.

As for its regional mandate or mission, OY's central administration is keen to point out that the university acts as an engine (see Castells, 1993) for the socio-economic and cultural development of Northern Finland as a whole (Pinheiro, 2012c). Despite its strong commitments to basic science

(excellence), OY is, according to its central steering core (Clark, 1998), to operate as an open system (Pinheiro, Benneworth, & Jones, 2012a), meaning that regional dimensions will continue to play a key role in future strategic directions, including the further development of its core (teaching and research) activities.

Contraction and expansion

OY's regional reach or locus operandi is conceptualized around three distinct geographic domains. The primary domain is that of the university's immediate geographic vicinity, the city of Oulu (147 thousand inhabitants) and the greater Oulu region, an area spreading 30 kilometres across. The second domain is that of the administrative regions of Central- and Northern- Ostrobothnia, covering a land area of about 43 thousand square kilometres and 456 thousand inhabitants. The third and final domain, as pointed out by internal respondents (central and unit levels), is that of the entire North of the country, the equivalent of half of Finland's land area and 650 thousand inhabitants or 12% of the population (Pinheiro, 2012a).

A more detailed analysis of the data reveals that interesting developments have occurred in recent years. At the domestic level, the geographic reach of the university has been retreating (contraction) towards that of the greater Oulu region, in detriment of other Northern parts. Internationally, the scope of OY's activities has gradually expanded in order to cater for developments across a much broader geographic area encompassing the Arctic and the Barents Sea. The Arctic region alone covers an area of more than 30 million square kilome-

tres and a population of about 4 million people (across 24 time zones). With respect to the first trend (contraction), this phenomenon is partly a result of the presence of other HE institutions in the region, and shifts in national policy imperatives such as the governmental decision (mid-1990s) to allocate regional tasks to polytechnics. In 2009, the Ministry of Education signalled that OY's regional scope, historically exercised in the form of decentralised research stations or university branches throughout Northern Finland, was too diversified, thus urging the university to centralise its activities around its (2) main campuses in the vicinity of Oulu city. Of the once 7 active regional research stations (see Pinheiro 2012a, p. 544), today only three – Oulu Southern Institute, Raahe unit and Sodankylä observatory - are in operation. As for the second trend – expansion – recent developments at the domestic, international (Nordic region) and supra-national (European Union) levels have been paramount given the attention - by policy makers, NGOs, industry, etc. – paid to issues such as climate change and energy exploration within the scope of the so-called "far North", i.e. Arctic and Barents Sea (see Pinheiro, 2012d), in addition to the importance attributed to the strategic relationship between the Nordic/EU countries and Russia.

Structural adaptations

Over the years, gradual adaptations of OY's organizational structure were put in place. In the 60s, the university's original organisational model, based on three core units, was supplemented by a fully-fledge faculty of medicine as well as units in the fields of the humanities and mechanical- and electrical- engineering. In the early 70s, a decision was

taken as to split the then faculty of philosophy into two entities, one for the humanities and the other for the natural sciences. This was followed by the establishment (mid-70s) of a stand-alone faculty of education. By the mid-80s, ICT had already become an area of considerable strategic importance in term of OY's institutional and market profiles. In the late 80s, the first inter-disciplinary research unit – Biocenter Oulu – was created. This was followed (early 90s) by the expansion in programmatic offerings in economics and business administration, with a stand-alone faculty established in 2000.

In retrospect and from a structural perspective, a major turning point occurred in the mid-90s when a new strategic platform for the entire university was then adopted (see Lajunen et al., 1999); resulting in a strengthened focus on key research areas – biotechnology, ICT, Northern issues. In turn, this strategic shift led to the creation (mid/late 90s) of a series of specialised research units such as the Thule Institute and Infotech Oulu. More recently, a number of interdisciplinary research units – art medicine, wireless communication, epidemiology, etc. – have been established. Today, the university's basic structure is composed of 6 faculties, including a stand-alone business school, 3 multidisciplinary research centres, 7 specialized research units, and 3 regional research stations. In addition, together with the Oulu University of Applied Sciences or the local polytechnic, OY coordinates teaching and research activities in the Kajaani municipality (South East of Oulu) in the form of a HE consortium.

One of the most important structural innovations initiated by OY in recent years pertains to new

ways of organizing and integrating its primary activities. Chief amongst these is the development of a new, matrix-type organizational structure (c.f. Pinheiro & Stensaker, 2013). The latter is substantiated around three main features: interdisciplinary graduate schools, dedicated to the training of the next generation of researchers; sector-focus research centres (e.g. wireless communication, environment and energy); and applied innovation centres (e.g. internet excellence) dedicated to the transfer and commercialization of knowledge to the outside world. These newly devised structures have been accompanied by the adoption of new, formal rules and operational procedures as well as changes in curriculum structures. Together, they have resulted into a re-definition of OY's institutional profile and scope of activities, including a critical re-assessment of its regional mission (Pinheiro, 2012c). As far as research is concerned, OY's scientific profile is part and parcel of the combination of internal scientific capabilities (e.g. Northern-related issues) and potential growth areas (e.g. nanotechnology, environment and energy, etc.) in addition to the future plans and ambitions of national and regional stakeholders across public and private sectors.

Curriculum adaptations

As a means of responding to regional dynamics and the demands of (certain) local actors, a number of curriculum innovations have been successfully undertaken over the years. At the unit level and across the academic heartland (Clark, 1998), the data indicate that a number of influential academics have played a key role in the renewal (adaptation) of educational programs in the light

of emerging circumstances. More often than not, such individuals possess tight links (networks) with external parties like local government, industry, professional associations, etc., and are able to anticipate future developments and recognize new market opportunities. As far as decision-making processes go, any major curriculum decision is undertaken by faculty committees in direct consultation with the central administration. There is some indication suggesting that, overall, curriculum innovations are easier to exercise at the postgraduate, master level and/or around international programs (Pinheiro, 2012a). When it comes to discipline- or knowledge- related dimensions (Becher & Trowler, 2001), the data show that professional (applied) fields such as engineering/technology, business/economics and the health sciences are, generally speaking, more likely to adapt their programmatic offerings in the light of changing external circumstances (e.g. the needs of regional actors and local and national labor markets), when compared to their counterparts from softer and harder fields (ibid.) like the humanities and the natural sciences, respectively.

Despite these changes, regional dimensions continue to be an integral component of curriculum structures across the board. Examples (per academic unit) include, but are not limited to: the importance attributed to the environment (technology); the management of the regional health sector (medicine); entrepreneurship (business & economics); Sami language and culture (humanities); applied geography/regional planning (science), etc. Following the classic model associated with the comprehensive, research-intensive university so prevalent elsewhere (Pinheiro, 2012a;

Pinheiro, Benneworth, & Jones, 2012b), strategic attention – central and unit levels – has recently been paid to strengthening the links (coupling) between teaching and research activities. However, in contrast to more traditional universities that, historically speaking, have had a tendency to decouple or buffer their core activities from external actors and agendas (cf. Pinheiro, 2012c), OY's strategic posture is characterized by a strong willingness to engaged with, and respond to the demands of, a variety of external stakeholders. This, in turn, results into a tighter coupling between internal formalized structures and arrangements and external dynamics and expectations.

Discussion: Tensions and success factors

Our analysis reveals a set of institutional-wide tensions or volitions (Pinheiro, Benneworth, & Jones, 2012) associated with finding an adequate balance between enhancing institutional responsiveness (local relevance) and internal aspirations associated with the need to strengthen OY's scientific profile (global excellence) and market competitiveness, both nationally and globally. These tensions can be grouped along three main categories, namely:

- Find a balance between core and peripheral tasks;
- Local- versus global- academic postures and aspirations;
- Clashes between internal (university)- and external (stakeholders)- goals and agendas.

Five main aspects lie at the heart of the problem, namely: (i) the internal allocation of resources, both people and funds; (ii) scientific autonomy and the

fear of being co-opted by external interests and stakeholders' agendas; (iii) short vs. long-term considerations, including the well-being of graduates; (iv) fiercer competition, for students, staff, funding, and prestige; and (v) reward- and incentive-structures. Internal (OY) advocates of a stronger focus on global, scientific excellence argue that resource concentration is a must in order for the university to be able to compete both nationally and globally, and that priority should be given to top research groups at the expense of smaller, often more applied research units. In contrast, there are those who defend the notion that the model being adopted by OY's central administration is that of a broad, comprehensive university whose core function is the successful achievement of a multiplicity of tasks (Kerr, 2001), including its civilizational role (c.f. Chatterton, 2000) through "softer" fields like the humanities and education.

As for the set of critical factors enabling the university to successfully fulfill its regional mandate or mission (Pinheiro, 2012a), our analysis of the data reveal the following aspects. At the macro level, policy or regulative frameworks, including funding and incentive structures or the lack thereof, in addition to endogenous characteristics and dynamics at the level of the region (e.g. the need to diversify) were found to play a critical role. With respect to regional dynamics, a major issue pertains to the presence of other knowledge-related actors (both public and private) and their ability to identify, manipulate and transfer academic-generated knowledge (Benneworth, Coenen, Moodysson, & Asheim, 2009), i.e. local absorptive capacity (Vang & Asheim, 2006). Social capital, in the form of trust-based informal networks (Bathelt,

Malmberg, & Maskell, 2004), was also found to be critically important in fostering collaborations between the university's various academic groups and regional constituencies (industry, local government, etc.), particularly when it comes to devising and implementing joint strategies in the light of the region's own future. At the meso level, leadership structures – central and unit levels (Benneworth, Pinheiro, & Karlsen, 2014) – and internal capabilities (scientific capacity), including a willingness to collaborate across disciplinary silos were identified as key dimensions. Finally, at the micro level and across the academic heartland (Clark, 1998), the role of influential individuals, so-called academic entrepreneurs (Bercovitz & Feldman, 2008), should not be underestimated due to their strategic efforts in: (a) reaching-out or bridging (Scott, 2003) the university with the outside world, either individually (ad-hoc endeavors) or in the form of semi-articulated groups: (b) sensing changes in the environment, thus acting as organizational thermostats (Kekäle, 2003), help recognizing new opportunities and infusing the sub-units they belong to with both a spirit of enterprise (Clark, 1998) and a cultural ethos of service (Pinheiro, 2012a) towards the region.

Conclusion

External developments like the passing of a new University Act and a series of voluntary mergers between HE institutions have resulted in the drastic reconfiguration of the Finnish HE landscape. In order to pro-actively respond to this new state of affairs, OY's central leadership or steering core has embarked on a series of structural innovations aimed at making the university more responsive to

its external environment, including the surrounding region. The centerpiece of strategic efforts lies on the adoption of a new, matrix-type organizational model aimed at strengthening OY's institutional profile or academic core while simultaneously increasing the degree of collaboration with various external actors (other HE institutions included) both within and beyond the geographic scope of the (Greater Oulu and the Arctic and Barents Sea) regions.

Organizationally, such strategic posture is to be accomplished by the adoption and consequent adaptation (Beerkens, 2010) of key features associated with the classic model of the comprehensive, research-intensive university on the one hand (Pinheiro, 2012a), and those of the more service-minded, entrepreneurial university on the other (Pinheiro & Stensaker, 2013). In doing so, OY's leadership structures – central and unit levels- have pro-actively, i.e. strategically (Zechlin, 2010), responded to external, primarily governmental calls for a stronger engagement with, and direct contribution to, society in general and the

socio-economic development of the region in particular, while, simultaneously, leveraging the university's scientific profile and (national and global) competitiveness. In other words, the Oulu case provides empirical support for the claim that modern universities – in (Northern) Europe and elsewhere – need to accomplish a multiplicity of tasks or functions (Krücken, Kosmützky, & Torka, 2007), and that strategic leadership and the active support of the academic heartland play critically important roles. Moreover, this case empirically demonstrates the short-term effects – internal dynamics, formal and informal structures and core and peripheral activities – accrued to changes in the operational – technical and regulative – environments in which (European) universities operate. The degree through which the exercised changes will affect teaching and research performance as well as the institutional/market profiles and degree of legitimacy of OY in the context of the surrounding (and expanding) region on the one hand and across the national and global organizational fields of HE on the other, remains a topic for future investigations. ●

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Is academe in recession and, if it is, what consequences does that have on academic work?



Different perspectives in academe are highlighted with a focus on academic work, micro politics, gender issues, management, leadership and organizations. The aim for the anthology is to provide a broader understanding concerning what happens in the Academy with a focus on the Nordic countries.