Theoretical and Methodological Perspectives on Higher Education Management and Transformation

An advanced reader for PhD students

Edited by
Elias Pekkola, Jussi Kivistö, Vuokko Kohtamäki, Yuzhuo Cai & Anu Lyytinen

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Introduction

Research in higher education constitutes an interdisciplinary field of study. For this reason, it lacks solid methodological and theoretical foundations and borrows from various fields of research. This is often an advantage for new creative interdisciplinary research designs, but it also represents a challenge for theory development. New researchers entering the field from their own disciplinary backgrounds often spend their first years of inception acknowledging themselves within the existing body of literature on higher education management and leadership. Thereafter, they conduct empirical investigations of some kind and only then do they start thinking about the theoretical contributions of their work. Often, empirical findings, familiar to all academics by virtue of the fact that they work in universities, surpass theoretical and methodological discussions. Research on higher education thus becomes a quasi-conceptual discussion of "our work" and "their policies" as well as of the "importance and uniqueness of universities". The only way of overcoming this bias is through rigorous methodological and theoretical work.

Higher education research has its own body of knowledge as well as small but active forums of academic interaction and dissemination. However, the theory development in the field has often been neglected. At the very least, this is often the impression which early career researchers run into, following their "honeymoon" with higher education research. This feeling of disappointment

and inadequacy is not unique to higher education scholars; it is familiar to many social scientists. However, in the field of higher education studies, many young researchers seem to share this feeling.

This book provides eleven theoretical and methodological approaches to higher education, with all but one borrowed from other fields of study. The lead authors of the chapters are former PhD students in administrative sciences, who have defended their theses over the last ten years. The chapters provide avenues for early career researchers to learn how methodological choices, theoretical approaches and conceptualisations can lead the work of researchers interested in higher education. This book, therefore, encourages early career researchers to adopt at least one methodological or theoretical tradition, in addition to those discussed in mainstream higher education research.

The book consists of three parts Methodological Approaches—examples for early career researchers, Conceptual Approaches Utilised to Understanding University Transformation, Scholarly Traditions Applied to Understand Universities and Academic Work. The first part highlights the importance of methods in research and provides examples of academic dissertations with strong methodological groundings. In their chapter, Terhi Nokkala and Taina Saarinen introduce discourse analysis as a methodological, theoretical and conceptual approach. While they highlight the difficulty of developing an approach, they note the importance of having a solid framework for analysing policy language. At the same time, they provide advice regarding the dangers of getting lost in translation and in losing touch with reality. In the second chapter, Yuzhuo Cai emphasises the importance of research design in the PhD dissertation. He approaches the research design through the concept of mixed methods, which he used in his own dissertation. He advises students to choose mixed methods as a pragmatic research strategy, but also warns about the labour-intensity of this approach. In the last chapter of this section, James Anyan proceeds by pondering the location of the mixed methods approach among the multitude of methodological paradigms.

In the second part "Conceptual Approaches Utilised to Understanding University Transformation", the authors provide theoretical and conceptual avenues to analyse the transformation of higher education. In the first chapter, Johanna Moisio uses the concept of policy transfer, borrowed from political science, to understand how the Finnish national higher education policy is interlinked with EU policies. In his chapter, Pascal Doh introduces a concept, the quadruple helix, developed in the field of innovation and science studies, to the African context. In the final chapter of the section, Anu Lyytinen provides an example of how a conceptual framework of entrepreneurial universities, developed within the field of higher education studies, can be utilised to increase understanding in relation to analysing university transformation.

In the third part "theoretical approaches to understanding university transformation", the authors provide examples of how the traditional and well-established theoretical approaches can be applied to higher education settings and what kinds of research questions can be developed with the help of these traditions. In their chapter, Pekkola, Carvalho, Siekkinen and Johansson provide an overview of the sociology of professions and illustrate aspects of academic life and work that could be approached from this sociological tradition. In the next chapter, Timo Näppilä illustrates how a classical application of systems theory and cybernetics can be applied to higher education research in order to understand the dynamics of academic organisations. In her chapter, Johanna Vuori exemplifies the application of an internationally recognised conceptual framework (reframing) to a new empirical setting. She shows that a rigorous reading and in-depth analysis of a single conceptual framework can provide a fruitful avenue for researchers of higher education management and leadership. In contrast to the generic approaches presented by Pekkola and others in the first section, the theoretical approach utilised by Näppilä and the framework analysis applied by Vuori in the last chapter of this section, Vuokko Kohtamäki and Elizabeth Balbachevsky take the single concept of "university autonomy" as a starting point of developing a research approach. They describe how one concept

can lead the design of a comparative research setting in the development of academic work and universities in two country contexts. Finally, in his chapter, Yohannes Mehari provides an interesting example of the application of two major theoretical traditions, resource dependence theory and institutional theory, to the Ethiopian context. He explains the manner in which these theories can be used for analysing changes in the university management structures in Ethiopia.

The book was prepared as a tribute to Professor Emeritus Seppo Hölttä, whose commitment to the development of the field of higher education administration, and his indefatigable work in the management and transformation of higher education, has inspired the authors of this book in many ways in their own professional careers.

The Editors

Elias Pekkola & Jussi Kivistö & Vuokko Kohtamäki & Yuzhuo Cai & Anu Lyytinen (Eds.)

I
Methodological Approaches:
Examples for early career researchers

Discourse analysis in higher education research
Theory and method

Terhi Nokkala & Taina Saarinen

Introduction

In this chapter, we discuss discourse analysis as a theoretical, methodological and empirical approach in higher education studies. We take our respective doctoral dissertations (Nokkala 2007a; Saarinen 2007) as a starting point and elaborate, on the basis of our post-doctoral discourse analytical research (see, e.g. Nokkala & Bacevic 2014; Nokkala 2016a; 2016b; Saarinen 2012; 2014; Saarinen & Taalas 2017), the different discourse analytical approaches available for higher education researchers. We then critically examine the feasibility of these approaches for higher education research and conclude by suggesting further uses and possible limitations of discourse analysis.

We need to emphasise from the start that "discourse analysis" is not a clear-cut theory or method, but rather an eclectic body of theoretical and methodological approaches that, broadly defined, analyse language use and its socially constructive nature in society. In order to be of use to researchers and students of higher education, in what follows, we focus on types of societally and politically relevant discourse analyses that we feel are particularly helpful in this field. Thus, instead of discussing interpersonal interactions, we describe

discourse analyses that illuminate the discursive constitution and construction of power relations and societal structures, such as critical discourse analysis (Fairclough 1992; 2003).

Higher education policy research and the "linguistic turn"

The "linguistic turn" in the social sciences focused on the socially constructed nature of "reality" (Berger & Luckmann 1979). With this turn, the focus was on the role of language as both describing and construing our understanding of what takes place in society. This means that we cannot assume that language (such as it is produced, for instance, in policy documents, legislation, parliamentary debates, interviews, etc.) merely describes reality; it also construes the ways in which we understand and conceptualise that (social) reality. Another implication of the linguistic turn in the social sciences is that policy texts cannot and should not be dismissed as "mere rhetoric", with little to do with "real policy" (Saarinen 2008).

While higher education studies typically use textual data (in the forms described above), textual methods have been used surprisingly sparingly (see Tight 2003; Saarinen 2007). Tight (2003) argues (2003, 188) that one (quite paradoxical) reason for the lack of textual methodologies in a textually heavy field may be that it is easily assumed that no particular guidance or methodology is needed for the apparently everyday activity of "reading the documents". In the second edition of his *Researching Higher Education*, Tight (2012, 184) points out that while discourse analysis and similar approaches have gained ground, there still seems to be little direction in the policy analysis literature regarding how to analyse document data.

We have conducted what we have described as "discourse analysis" in our respective doctoral studies (Nokkala 2007a; Saarinen 2007), later broadening our perspective on discourse analytical work in our post-doctoral research. Nokkala's (2007) approach to discourse analysis employed a critical realist ontology, combined with an emancipatory interest in knowledge. Her research sought to highlight how power works through language to create hegemonic

discourses and hegemonic understandings of the world, consequently legitimating itself. Focusing on the discursive construction and legitimation of the internationalisation of higher education and the university as an institution, Nokkala's dissertation illuminated the manner in which discourses can act as tools for neoliberal governmentality. Through discourse, both individuals and organisations assume subjectivities of ideal ways of being and acting in the competitive knowledge society, which can be called the dominant political rationality of our time.

Saarinen's (2007) goal was to introduce not only ontological approaches to discourses that construe (social) reality in higher education policy studies, but also to test different textual methods for the analysis of policy documents and, thus (epistemologically), to help understand the ways in which we can understand the role of "language" in policy-making. Thus, Saarinen's PhD dissertation introduced textual discourse analysis in the field of higher education studies, suggesting that when policy documents are used as data, as is often the case in higher education policy research, textual analytical tools should be applied more systematically than they have been (see also Tight 2003 for a discussion of methodologies in higher education studies). She concluded that the uses of policy texts lead to a chain of operationalisations that have a real policy effect, and thus, textual discourse analysis can (both methodologically and theoretically) help identify, understand and explain higher education policies and the ideologies embedded in the debates that appear to be textual (see also Saarinen 2008a).

Ontologically, therefore, the socio-constructivist premise in our respective work was similar, but our methods of analysis were somewhat different, with Saarinen emphasising the linguistic and textual and Nokkala the political elements of discourse in their analyses.

Theoretical and methodological approaches to discourse analysis in higher education research

The conceptual mishmash regarding discourse analysis can be confusing. Describing a study as discourse analytical does not say anything about its actual approach or orientation to discourse, whether theoretically, empirically or methodologically. Similarly, the term *discourse* and its related concepts, such as text, need to be defined, as they may refer to different things depending on the theoretical or methodological approach being applied.

Gee (2015) has illustrated the basic types of discourse analysis by talking about "small d" discourse analysis ("language-in-use") and "big D" Discourse analysis (the enactment of socially and historically significant identities and social structures). Another line of division in discourse analysis would be to conceptualise discourse as linguistic and textual vs. conceptualising discourse as socio-historical knowledge construction (see, e.g. Fairclough 2003; Foucault 2002). Fairclough (2003) separates the abstract "discourse" as meaning the particular dual property of discourse in construing and describing social life, while the count noun "discourse/discourses" refers to different ways of representing social reality or different views on a particular issue.

While there are many different approaches and traditions in discourse analysis (Fairclough 1992; Wodak 2001; van Dijk 2002), in this chapter, we focus on the tradition of critical discourse analysis, which we both used in our dissertations. Critical discourse analysis (CDA) is often referred to in studies dealing with policies and politics, gender or institutional settings; and thus, it offers a helpful starting point for analysing higher education policy and practice. CDA, like discourse analysis in general, represents a broad set of viewpoints, often characterised by pragmatism, problem orientation and linguistic orientation. The three most common approaches are Wodak's discourse-historical approach (2001), van Dijk's (2002) work on discourse and cognition and Fairclough's (1992) work on language use and social structures. In CDA, texts are seen as constructing, reproducing and transforming social structures, relations and processes; thus, the analysis of texts can reveal how social control and domination are exercised, negotiated and resisted in society.

As CDA often addresses "political" and contentious subjects, it has also been open to criticism for having coincidental or ideologically motivated research settings and data (Titscher et al. 2000, 163).

The process of CDA is often presented in a three-dimensional model (Figure 1), which comprises the description of the text and its linguistic features, the interpretation of the production and consumption of the texts in discursive practices and, finally, an explanation of the social context in which these discursive practices take place. The analysis process is iterative, and the analyst moves back and forth between the dimensions.
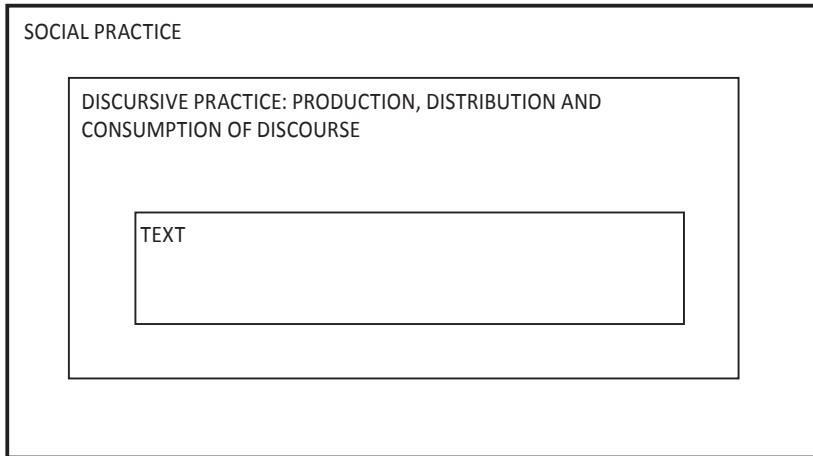
Figure 1. Three-dimensional conception of discourse
(Fairclough 1992, 73)

Applying discourse analysis in higher education research

Discourse analysis, as a broad set of theoretical, methodological and analytical approaches, can be used to analyse a wide variety of issues. These include assumptions about the existing and preferred state of the world; the agents, or lack thereof, in what is or should be the state of the world; interactions

between people and reproducing or changing power relations between actors or strategies used to persuade multiple audiences of the above points. Phenomena that can be studied through discourse analytical tools may take place at the micro, meso and macro levels of higher education, including in the cross-sections of these levels.

Discourse analytical traditions seek to highlight how higher education systems and institutions are constituted and how they change. Discourse analysis can be used to analyse and unfold the key phenomena and relations in higher education research, such as Clark's (1983) famed heuristics of academe: the triangle of coordination comprising the state, market and academic oligarchy as the three sites of power; the institutional-disciplinary matrix comprising an organisational dimension and a disciplinary dimension describing the sites and tensions of academic work and the makings of entrepreneurial universities (Clark 1998).

Discourse analytical studies on higher education policy have gradually increased during the 2000s (see Saarinen & Ursin 2012; Ursin & Saarinen 2013 for reviews). In most cases, the concept of discourse was not particularly problematised and was used primarily in an informal and general sense to refer to a particular "discourse" as a condensation of policy or as a "way of talking about something". Gradually, however, the concept began to be problematised more systematically. Often, a Foucauldian or critical view of discourse as a system of organising knowledge was taken (see, e.g. Robertson & Bond 2005), and discourse analysis was used in conjunction with Foucault's governmentality theory (Foucault 1991; Mulderrig 2011; Suspitsyna 2010; 2012), which was used to conceptualise how individuals, organisations and societies are governed through internalised subjectivities produced in discourse. Sometimes, the concept of discourse was utilised to describe and enable the juxtaposition of two opposing policy arguments or views (see, e.g. Välimaa & Westerheijden 1995). Uses of CDA have been rarer, possibly because of the heavy textual analysis required.

In highlighting the different ways in which discourse analysis can be used in the study of higher education policy and administration, we draw in more

detail from our own work conducted over the past ten years. The chosen examples illustrate the multiple applications of discourse analysis, with more linguistically- and politically-oriented studies.

Nokkala's (2007a) dissertation, which was also published as a monograph, addressed the discourses of the internationalisation of higher education in Finland and Europe, including in relation to the discursive construction of the role of the university in the competitive knowledge society. The discourse analytical approach of the study relied on Fairclough's CDA and Foucault's governmentality theory. Thus, it focussed especially on the third dimension of discourse, namely the ways in which discourse constitutes non-discursive structures and practices. drawing from an analysis of international, national and university level higher education policy documents as well as interviews with higher education leaders and practitioners, Nokkala identified three discourses that support the internationalisation of higher education: internationalisation as individual growth, the rethinking of the university and the opening up of the country, respectively. Similarly, Nokkala identified three discourses that construct the legitimacy of the university as an institution: science and knowledge, civilisation and well-being and competition and competitiveness, respectively. Through these discourses, the image of an ideal university in the context of a competitive knowledge society is constructed. Nokkala's study was also interested in the way in which discourses contribute to the upholding and changing of power relations. The spin-off articles resulting from the dissertation addressed the discourses and narratives of the Bologna Process (Nokkala 2007b) and Finland (Nokkala 2008) in the context of the knowledge society.

Upon completing the dissertation, Nokkala's discourse analytical work (Nokkala 2012; 2014; 2016a; 2016b) moved beyond the Finnish context, though retaining a focus on the mostly European framework. In her postdoctoral work, Nokkala expanded on the mechanisms through which discourse works on policy, focusing especially on how the state of no alternatives in policy is discursively created through, for example, persuasive genres of language, knowledge production or local translations of global discourses. Discourse

works to colonise policy solutions so that only a given course of action seems feasible. In the context of neoliberal political rationality, market-based, commodified and competition-oriented solutions are often favoured. Thus, Nokkala's work has taken a critical and emancipatory turn. For example, in their discourse theoretical article, Nokkala and Bacevic (2014) studied the way in which the European University Association has contributed to the construction of knowledge on university autonomy and the resulting emergence of a hegemonic discourse. Through this knowledge construction, they have similarly constructed their own agency in the European Higher Education Area.

Nokkala (2016a) has also analysed policy discourse from a rhetorical perspective, focusing on the discursive elements used in policy texts to make policy persuasive, to construe it as rational and logical and to create a sense of urgency in bringing it about. Drawing from Martin's (1989) work on genre analysis, Nokkala uses the notions of the analytical and hortatory register to study how, first, policy discourse presents what the world is like and, second, what should be done, and how, to achieve the desired state of affairs. Analysing 60 higher education and science and technology policy documents from five countries, Nokkala illustrates how policy discourse constructs a "state of no alternatives", in which the state of affairs, as described by the discourse, becomes an immutable fact and charts the only logical course forward.

Finally, Nokkala (2016b) has also focused on the construction and long-term evolution of national and global policy narratives concerning the link between the knowledge society and higher education in different types of knowledge societies: Finland, Portugal, Germany, the United Kingdom and the United States. The analysis highlights both convergent and divergent elements across the higher education and science and technology policy discourse in the five countries, spelling out the corresponding globalised and localised discursive practices.

Saarinen's (2007) dissertation employed a critical discourse analysis starting point to the study of *quality* as a higher education policy concept and, consequently, to higher education assessment as a higher education policy

phenomenon. The main question was: *What kind of higher education policy is produced and supported in the name of "quality"?* The article format of the dissertation made it possible to test different kinds of textual tools.

The first article (Saarinen 2005a) looks into the value assumptions assigned to *quality* in European-level policy documents, showing the gradual mainstreaming of the concept of quality. The second article (2005b) analyses the metaphors and actions that are discursively connected with the words "quality" and "assessment", particularly in the Finnish context, showing the development of *quality* from a policy problem to a policy solution and problematising the ways in which action is discursively construed. The third article (Saarinen 2008b) analyses persuasiveness, particularly persuasive presuppositions in higher education policy documents, in understanding the ways in which a particular policy is construed as self-evident and uncontested. The fourth article (Saarinen 2008c) develops the discursive analysis of actors and action, resulting in the problematisation of active or passive inclusion or exclusion in higher education policy, while the fifth article (Saarinen & Ala-Vähälä 2007), which was developed from ideas in the fourth article, discusses the intended meanings vs. actual uses of *accreditation*, resulting in an analysis of transnational differences in the conceptualisation of accreditation.

Following the completion of the dissertation, Saarinen continued to examine the internationalisation of higher education, particularly from the point of view of implicitness, i.e. the way in which implicating (rather than explicating) a policy view can actually make the policy construction more effective (see, e.g. Saarinen & Nikula 2013; Saarinen 2014). The absence or presence of the mention of a language, for instance, may be indexical of policy ideologies. Implicit discursive assertions (such as presuppositions) can be used to trigger audience consent, whereas explicit assertions may draw more attention and even criticism (Wodak 2007). Fairclough (2003, 82) suggests that it is more effective to present ideologically loaded political opinions implicitly as if they were common sense. Implicit expression is, thus, an instrument for presenting (as well as suggesting) ideologically loaded policies as common

ground facts, a property of discourse that is also relevant in the 2017 landscape, where the media's role in politics is being heavily discussed (Saarinen 2008b).

Discursive analyses of language ideologies in higher education and the observation that higher education policies are complex combinations of local and global initiatives and potentially conflicting interests led Saarinen to further develop discourse analytical methodologies in the study of policy as multi-sited, i.e. as situated, layered and temporally and spatially fluctuating (instead of linear and hierarchical) (see Saarinen & Nikula 2013; Halonen, Ihalainen & Saarinen 2015; Saarinen & Taalas 2017). This approach has been beneficial in acknowledging the complex nature of policies of internationalisation in higher education and making visible the multi-layered and discursively connected ideologies and hierarchies in higher education internationalisation.

Challenges and limitations of discourse analysis

Discourse analysis has been increasingly used, both by us and others in the field of higher education research in the years following the defence of our PhD theses in December 2007. Recent PhD dissertations in higher education research in Finland that have employed discourse analysis include Haltia (2012), Kankaanpää (2013), Laajala (2015) and Schatz (2016). Equally, discursive approaches have, in recent years, found their way in higher education policy research (see, e.g. Ramirez & Tiplic 2014; Fabricius, Mortensen & Haberland 2017; Buckner 2017). This is an indication of the way in which social constructivism has penetrated research, not just in higher education, but in social sciences in general. This has obvious benefits. By focusing on what kinds of social realities are construed by linguistic means, discourse analysis reveals the contexts and ways in which policy construction makes certain policies appear inevitable. A systematic, rigorous analysis of textual data is necessary in order to raise the level of abstraction from the (superficially) textual to the discursive to the societal (Fairclough 2003) and to make more transparent the apparent black box of policy as discourse vs. policy as action.

Conversely, textual analyses of large masses of documents ("text") can be time-consuming, and the relationship between "policy reality" (as understood by the actors in the field) and "policy construct" (as a product of discourse analysis) may be obscure or difficult to explain to policy-makers (see Saarinen & Ursin 2012).

Another potential problem in any discourse analytical approach is theoretical in nature: the possible over-analysis of language may lead to the researcher distancing himself or herself from the physical environment in which the social construction of reality takes place. This is at the core of the longstanding debate between ontologically realist and relativist approaches to discourse analysis. Realist approaches (cf. Parker 1992; Willig 1998; Fairclough, Jessop & Sayer 2001) perceive there to be non-discursive social practices and institutions or structures that are not constituted by discourse, thereby reproducing unequal power relations in society. The more relativistically oriented approaches have focused on highlighting the multiplicity of contextual linguistic practices, without alluding to the non-discursive realities from which they stem (Edwards, Ashmore & Potter 1995; Potter 1996). Relativist approaches have been criticised by realists for their failure to engage in critical debates to highlight and change the power structures in society and, thus, empower disadvantaged groups. This leads to another question: while the discursive nature of policy has been understood, the process of how "discourse IS action" is a black box in the empirical sense. It thus seems that a post-discursive "material turn" is needed: linguistic phenomena need to be reduced to their fundamentally material roots in order to make "discourse as action" transparent.

Similarly, discourse analysis may also fail if it is not applied rigorously. Merely summarising the data, taking sides in the analysis, thinking that quoting text excerpts equals analysis, picking isolated quotes or spotting various linguistic features all amount to typical under-analysis and, thus, failure in discourse analysis (Antaki, Billig, Edwards & Potter 2004). The notion of discourse analysis as unanalytical also constitutes one of the most common, and often well-deserved, critiques of discourse analysis.

Another methodological challenge, and one faced by Nokkala, specifically in her PhD dissertation (2007) and some of her post-doctoral research (2016b), relates to operating in multiple languages and the need for multiple translations at various stages of the research process. In an international comparative study (e.g. Nokkala 2016b), documents may be written in languages in which the researcher has varying levels of fluency. Official policy documents may have unofficial translations, or the translation may be done by the researcher. Interviews may be conducted in a language that is non-native to the interviewee or the interviewer, or they may need to be translated for the purposes of reporting the research results. As language does not merely describe, but also constitutes and constructs reality, these multiple translations add an additional layer of interpretation and are a source of both practical and epistemological challenges.

Finally, as discourse analysts, we must be mindful of the potential problems arising from the power of discourse. In her dissertation, Nokkala (2007a, 235) states that "History has shown us that the narratives and discourses may also be potentially dangerous, the narrative of nationalism, and what it has inspired in the past, provides a good example of this. Narratives and discourses are often instated by the winners rather than the losers, and they become dominant when other narratives are no longer tolerated". Ten years later, this statement still rings true. For thirty years, scholars of discourse and discourse analysis have argued that social reality is socially constructed and that power in society is inimically related to the potential of people to construct their own discourses as hegemonic facts. Politicians, civil society actors and the media have taken heed. With the rise of "alternative facts", linked, for example, to the process of the United Kingdom leaving the European Union, i.e. the so-called Brexit, and the ascent of Donald Trump to the US presidency, we see such discursive constructions of reality in action. As discourse analysts have to conduct their analysis ethically and systematically, societal actors should engage in discursive constructions with similar care.

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What drives the choices of mixed methods in higher education research?

Yuzhuo Cai

Introduction

In the last 15—20 years, the mixed methods approach has gained a central place in social science research, thanks to its introduction and promotion by a few researchers, such as Creswell, Plano Clark, Gutmann, and Hanson (2003) and Tashakkori and Teddlie (2003). In 2007, the *Journal of Mixed Methods Research* was established, and within 10 years, it has become one of the most influential journals in the social sciences. In higher education studies, mixed methods has tended to become increasingly popular as well (Papadimitriou, Ivankova & Hurtado 2013). However, it has continued to present challenges in terms of how to justify and ensure the validity or quality of a mixed methods study in social sciences in general (Teddlie & Tashakkori 2009), particularly in higher education research (Papadimitriou et al. 2013). In response, Papadimitriou et al. (2013) sought to draw lessons by analysing two examples of higher education studies. Their main conclusion was that when conducting mixed methods research in higher education, one must follow methodological conventions of both qualitative and quantitative research as well as specific procedures of mixed methods design. They also suggest that

in seeking to publish mixed methods research, researchers must make explicit the value-added of using mix methods so that the journal editors and reviewers can easily justify the quality of their research. Their inferences are important, but when it comes to the practice of conducting mixed methods, there are high demands on more comprehensive and concrete suggestions regarding how to do it, particularly in the field of higher education research. Above all, it is essential to know when and why one needs to choose mixed methods.

The research methodology literature tends to suggest a correspondence between the research question and the methodological design (Newman & Benz 1998a). In particular, the research question is more important in mixed methods research (Creswell 2003; Johnson & Onwuegbuzie 2004), in that, it determines whether a mixture of methods is suitable (Curral & Towler 2003, 521; Teddlie & Tashakkori 2006) and what specific designs should be chosen (Onwuegbuzie & Leech 2006).

The position that research questions guide decisions about research methods and research designs has been challenged. For instance, drawing on interviews with 20 mixed methods researchers as well as analyses of some mixed methods studies, Bryman (2007) asserts that there is a dilemma between the textbook account and practical research. While textbooks mainly provide a normative position, researchers are more ambivalent about the role of research questions in connection with research methods. Bryman found that some researchers adopt mixed methods for practical or tactical purposes. Moreover, Newman et al. (2003) argue that while the research question is important, it is not sufficient to determine methodology. They stress the importance of research purpose in determining research design. As they put it:

> *Without having one's purpose (or purposes) clarified, and without time to reflect on that purpose, one cannot have a question that will directly dictate the research methodology. ... The research question alone will not produce links to methods unless the question is thought through seriously, as well as iteratively, and becomes reflective of purpose.* (Newman et al. 2003, 168)

The methodological debates imply an ambiguity regarding what drives the choice of mixed methods design. To contribute to the discussions on the topic, in this chapter, I analyse my own experience of conducting mixed methods research in the field of higher education studies and compare this with discussions in the mixed methods literature. My analysis is intended to answer the question: What factors actually drive the choice of using mixed methods?

The remainder of the chapter is structured as follows. First, it introduces the mixed methods approach and then discusses possible influencing factors on the choice of using mixed methods, as indicated by the mixed methods literature. Next, using these factors as a benchmark, I review what actually affected my choice of mixed methods in my doctoral research as an illustration. At the end, I draw some conclusions regarding what drives the choice of mixed methods in higher education research and suggest some important avenues for future research.

Mixed methods

Traditionally, qualitative and quantitative methodological approaches have largely been used on separate tracks in social science research, despite the rich acknowledgement of the drawbacks of such a methodological bifurcation. Most quantitative research is confirmatory, involving theory verification, whereas much qualitative research is exploratory, involving theory generation or discovery. However, the phenomena to be explored are often too complicated to be tackled within the singularity of either a qualitative or quantitative approach. Thus, an emerging methodology, mixed methods, has become increasingly popular.

Mixed methods research is a research design (or methodology) in which a researcher collects, analyses and mixes (integrates or connects) both quantitative and qualitative data in a single study or a multiphase programme of inquiry (Creswell 2005, 510). The attempt to incorporate both qualitative and quantitative methods into a mixed methods study is always a challenge. An extensive body of literature on research methodology sharply divides the two

methods according to their philosophical beliefs between interpretivism and post-positivism. Quantitative studies emphasise the measurement and analysis of causal relationships between variables, often associated with population generalisation. Qualitative methods allow for the articulation of many truths in meaningful social actions, stressing how social experiences are created and given meanings (Denzin & Lincoln 2003, 13). Despite the dichotomy between qualitative and quantitative research strategies, "the two philosophies are neither mutually exclusive (i.e. one need not totally commit to either one or the other) nor interchangeable (i.e. one cannot merge methodologies with no concern for underlying assumptions)" (Newman & Benz 1998a, xi). It follows that studies at the operational level are located on different points of a continuum between qualitative and quantitative.

This is consistent with Creswell's (2003, 4) vision that while traditional paradigms of social science research exist on two opposing stances, requiring either quantitative or qualitative approaches, "the situation today is less quantitative *versus* qualitative and more how research practices lie somewhere between on a continuum between the two". This means that the mixed methods approach is located in the realm of pragmatism in the middle of the continuum between interpretivism and post-positivism. For pragmatists, understanding the problem is more important than being committed to any one system of methodological philosophy (p. 12). By mixing both qualitative and quantitative methods, it offers the best chance for answering many important and complex research questions (Johnson & Onwuegbuzie 2004). The rationale for using mixed methods "is grounded in the fact that neither quantitative nor qualitative methods are sufficient, by themselves, to capture the trends and details of a situation" (Ivankova, Creswell & Stick 2006, 3).

Despite the lack of a clear definition of what exactly are mixed research questions, it has been commonly agreed that mixed methods studies answer questions that embed both qualitative and quantitative inquires (Creswell 2003, 114). Qualitative research questions often begin with the words "what", "how" and "why" in relation to discovering/exploring a process, describing experiences or understanding a phenomenon that has not been

well understood (Creswell 2003, 106; Griffiths 1996, 27; Onwuegbuzie & Leech 2006, 482). While qualitative research questions are characterised as "open-ended, evolving, and non-directional" (Creswell 1998, 99), quantitative research questions are specific in nature, either descriptive, comparative or relationship oriented (Onwuegbuzie & Leech 2006, 480). In the last two categories (comparative or relationship oriented), research questions are often formulated in the form of hypotheses, predicting relations among variables (Creswell 2003, 108). In short, qualitative studies are usually exploratory, while quantitative ones tend to be explanatory.

The advantages of using mixed methods for social science research have been argued and evidenced by a number of researchers (Creswell 2003; Miles & Huberman 1994, Chapter 3; Newman & Benz 1998b; Tashakkori & Teddlie 2003). Among these, the convergent view is that the two methods are complementary and compatible. For instance, Newman and Benz (1998b) illustrate that the strength of mixed methods is based on their self-correcting feedback loops (Figure 1).

There are different ways of combining or mixing qualitative and quantitative research. The mixed methods literature presents a variety of typologies of mixed methods designs (Creswell 2003; Johnson & Onwuegbuzie 2004; Leech & Onwuegbuzie 2009; Onwuegbuzie, Slate, Leech & Collins 2007; Tashakkori

1–5: Quantitative approach;
A–E: Qualititive approach
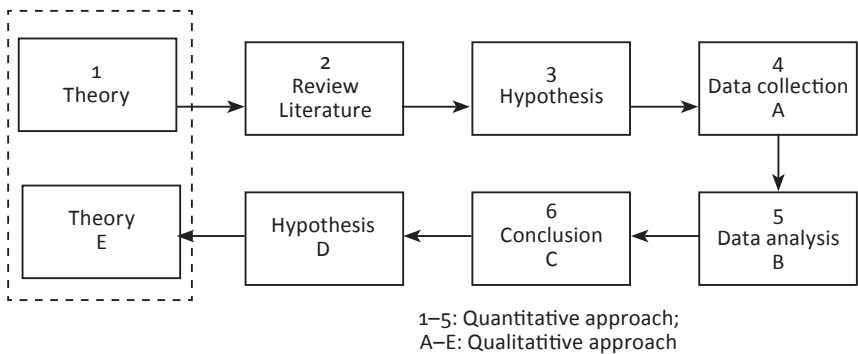
Figure 1. The structure of social science research
Source: Adapted from Newman and Benz (1998b, 21)

& Teddlie 1998; Tashakkori & Teddlie 2003; Teddlie & Tashakkori 2006). For instance, in Tashakkori and Teddlie's (1998, 160–166) typology, three dimensions are used: the nature of the research (confirmatory/exploratory), data collection and operation (qualitative/quantitative), and data analysis (statistical/qualitative). For Johnson and Onwuegbuzie (2004, 20), a mixed methods design is determined by two primary decisions by the researcher: "(a) whether one wants to operate largely dominant paradigm or not, and (b) whether one wants to conduct the phases concurrently or sequentially".

More recently, Leech and Onwuegbuzie (2009) sought to create an integrated three-dimensional typology of mixed methods designs based on an extensive review of the mixed methods literature: (a) level of mixing (partially mixed versus fully mixed); (b) time orientation (concurrent versus sequential) and (c) emphasis of approaches (equal status versus dominant status). Their typology is not very different from the more commonly used scheme proposed by Creswell et al. (2003), who used four dimensions to categorise mixed methods designs: implementation, priority, integration and theory.

Implementation is similar to "time orientation" in Leech and Onwuegbuzie (2009) and refers to whether researchers collect quantitative and qualitative data in different phases (sequentially) or at the same time (concurrently). Concurrent procedures are often used by researchers who are attempting to obtain a comprehensive analysis of the research problem, including concurrent triangulation, concurrent nested and concurrent transformative. In sequential procedures, the researcher seeks to elaborate or expand the findings of one method with another. The sequential strategy includes three models: sequential explanatory, sequential exploratory and sequential transformative.

The priority accorded either the qualitative or quantitative approach is similar to Leech and Onwuegbuzie's (2009) concept of "emphasis of approaches", which pertains to whether greater priority is given to the quantitative or qualitative approach, especially in terms of data analysis. Priority can also be expressed as dominance. Priority for one type of data or the other depends on the researcher's interests, reader expectations or the nature of the investigation (e.g. inductive or deductive). In mixed methods studies, there

are three possibilities: the quantitative approach is prioritised; the qualitative approach is prioritised; both quantitative and qualitative approaches have equal priority.

Integration refers to the stages in the research process involving the mixing or integration of the quantitative and qualitative methods, ranging from the stage of addressing research purposes or research questions to that of analysing or interpreting data. This is very much in line on a continuum of the "level of mixing" described by Leech and Onwuegbuzie (2009), on which mixed methods research falls from "not mixed" (i.e. mono-method designs) at one end of the continuum to "fully mixed" at the other end. Partially mixed method designs are located between the two ends. They further elaborate that mixed methods research involves mixing both quantitative and qualitative research within one or more of the following four stages of the research process: 1) formulation of the research objective, 2) data collection, 3) data analysis and 4) inference. Similarly, for Creswell et al. (2003, 220), "integration might occur within the research questions (e.g., both quantitative and qualitative questions are presented), within data collection (e.g., open-ended questions on a structured instrument), within data collection (e.g., transforming qualitative themes into quantitative items or scales), or in interpretation (e.g., examining the quantitative and qualitative results for convergence of findings)".

Leech and Onwuegbuzie's (2009) typology does not include the dimension of the theoretical perspective suggested by Creswell (2003). According to Creswell et al. (2003), the use of a theoretical lens in mixed methods research may be explicit or implicit. Explicit use of a theoretical perspective refers to situations in which theories have a direct and strong impact on the questions to be asked, the subjects and participants to be studied, the data to be collected and the preference of conclusions. The studies in this kind are value-based and action-oriented and have an advocacy purpose. This is called the transformative model in mixed methods research, whereby researchers use a theoretical lens as an overarching perspective that embraces both qualitative and quantitative data.

Factors affecting the choice of mixed methods

The literature suggests three factors that affect the choices of mixed methods. These are research questions, research purposes, practical reasons and beliefs in research paradigms.

Types of mixed research questions

Research questions can be formulated on the basis of theories, past research, previous experience or the practical need to make data-driven decisions in a work environment. "Thus, they serve as signposts for the reader, foreshadowing the specific details of the study" (Onwuegbuzie & Leech 2006, 478). Mixed methodologists believe that mixed methods are suitable for certain kinds of research questions (Creswell 2003; Tashakkori & Teddlie 2003), and especially for complex research questions (Plano Clark 2005).

Onwuegbuzie and Leech (2006) made an initial attempt to develop a framework linking mixed methods research questions and mixed methods designs. They categorised five types of mixed methods research questions: 1) mixed methods research questions for descriptive research designs, 2) mixed methods research questions for causal-comparative research designs, 3) mixed methods research questions for experimental research designs, 4) mixed methods research questions for qualitative comparative designs and 5) the most compatible mixed methods research questions. Their study is inspiring, as it not only corroborates the argument that research questions drive the methods used (Newman & Benz 1998a; Tashakkori & Teddlie 1998), but it also tasks researchers to establish relations between mixed methods research questions and mixed methods designs.

Nevertheless, the framework established by Onwuegbuzie and Leech (2006) remains largely ambiguous. On one hand, the descriptions of these types of research questions are on a general and abstract level, despite the provision of a number of exampling questions. On the other hand, the categories of the mixed methods designs used in their framework need to be benchmarked

with reference to other similar typologies developed elsewhere (for example: Creswell 2003; Tashakkori & Teddlie 1998; Teddlie & Tashakkori 2006).

Research purpose and mixed methods designs

Newman et al. (2003) argue that the research question alone is not sufficient to determine the methodology. Rather, "by considering the question and purpose iteratively, one can eventually get to a design or set of designs that more clearly reflect the intention of the question" (p. 168). By research purpose, they mean the reasons for conducting a study. Nine general research purposes can be categorised (p. 185):

1) Predict: using all the things we known in this knowledge "base" to explain a field and what might yet unfold in the future
2) Add to the knowledge base: organising all the things we know into a "base" of knowledge
3) Have a personal, social, institutional and/or organisational impact: struggling with the complex environments we experience, particularly when we know that some things we know and experience are not just, fair and in keeping with our ethical or professional purpose
4) Measure change: measuring what happens when we change things
5) Understand complex phenomena: understanding what things we now experience and know
6) Test new ideas: testing these new things
7) Generate new ideas: Discovering some new things
8) Inform constituencies: telling what things we know to those who need to know them
9) Examine the past: what things we already know from the past

This typology of research purpose can serve as a valuable tool for researchers to initiate proper research questions and to identify appropriate research methods. In particular, research purposes 2, 3, 5 and 6 (sometimes in combination), due to their complex nature, may lead to mixed methods approaches.

A universal discourse and practical reasons
for conducting mixed methods

In his study—which was based on interviews with 20 social scientists with experience of mixed methods research and a review of some mixed methods publications—Bryman (2007) distinguishes between a particularistic discourse and a universal discourse. A particularistic discourse implies that research questions guide decisions about research design and research methods. A universal discourse entails the views that "mixed-methods research will tend to provide better outcomes more or less regardless of the aims of the research" (p. 8). In many cases, it is the universal discourse that underlies researchers' decisions regarding the use of mixed methods. He also found that some researchers conduct research by simply using the methods with which they are familiar, not necessarily with recourse to the specific research questions, while some adopt mixed methods for some practical or tactical purposes, such as "to secure funding, to get research published or to gain the attention of policy makers" (p. 14).

Pragmatist research paradigms and mixed methods

Creswell (2003) developed a research design framework (Figure 2), which is very useful for researchers in terms of locating their studies in methodological settings. Between post-positivism and interpretivist paradigms lies that of pragmatism. For pragmatists, understanding the problem is more important than being committed to any one system of methodological philosophy. As

Epistemologies	Objective		Subjective
Social science paradigms	Post-positivism	Pragmatism	Interpretivism Advocacy
Inquiries	Quantitative	Mixed	Quantitative
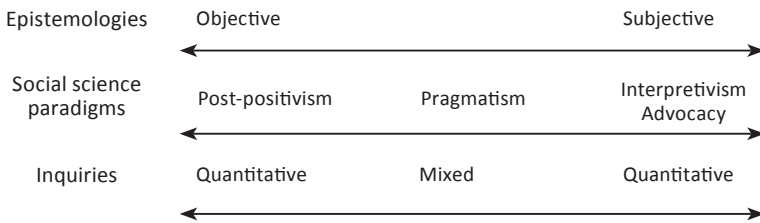
Figure 2. Framework of research design
(Adapted from Creswell 2003)

such, they tend to use multiple methods of data collection, techniques and procedures of research that meet their needs and purposes (Creswell 2003).

Therefore, following pragmatism, the question here is not whether the two methods can be linked in a study design; the directive is that it should be done. This somehow echoes the universal discourse, suggesting that mixed methods may have universal suitability, "supported with little or no reference to research questions" (Bryman 2007, 18). Bryman has observed that "the normative view of the relationship between research questions and research methods may be an account about how the research process should operate, but it is not necessarily an account of how it operates in practice" Bryman (2007, 18).

Exemplifying the choice of mixed methods in higher education research

In this section, I analyse the factors that affected my choice of mixed methods in my doctoral research, using as my reference framework the discussions in the literature mentioned above. Before that, I briefly introduce my study, titled *Academic Staff Integration in Post-Merger Chinese Higher Education Institutions* (Cai 2007).

The PhD research

The aim of my dissertation was to discover the factors affecting academic staff integration in post-merger Chinese higher education institutions, especially the cultural dimension of that integration. The case study institution is a provincial university in China, which was formed in the mid-1990s through the amalgamation of three institutions; they were located in the same city and offered similar programmes in teacher education and training. Two of them were similar in terms of academic strength and organisational age and had programmes leading to both undergraduate and postgraduate qualifications. The third was a much newer institution, offering three-year undergraduate non-degree programmes.

I applied mixed methods in the study, consisting of two parts: one was a pilot study based on analyses of in-depth interviews, and the other was based on statistical analyses of survey questionnaires. The empirical understandings generated from the qualitative pilot investigation, as well as an interpretation of the phenomenon of staff integration within the framework of institutional organisation theory, led to the development of hypotheses concerning the central research problem. The quantitative study of the survey data was used to test the hypotheses.

The results indicated that among a number of possible factors affecting academic staff integration, three have been empirically identified as vital, namely cultural compatibility between the pre-merger institutions, transparency of management and the upgrading of organisational profiles. It was also shown that the type of merger could exert an impact on the success of academic staff integration.

My considerations on choosing a mixed methods research design

My research design was initially planned as a case study. Yin (1994) has summarised five ways of undertaking social science research: experiment, survey, archival analysis, history and case study. The choice of each research strategy depends on the forms of the research question, the control that the investigator exercises over actual behavioural events and the extent of focus on contemporary events (Table 1).

Table 1. Relevant situations for different research strategies
Source: Yin (1994, 6)

Strategy	Form of research question	Requires control over behavioural events	Focus on contemporary events
Experiment	how, why	Yes	yes
Survey	who, what, where, how many, how much	No	yes
Archival analysis	who, what, where, how many, how much	No	yes/no
History	how, why	No	no
Case study	how, why	No	yes

The research question of my doctoral dissertation was: What factors affect academic staff integration in post-merger Chinese higher education institutions? As these factors have neither been clarified by existing knowledge nor by practical experience, the "what" question here, in the first instance, includes an exploratory investigation, which is normally conducted when the existing knowledge on the issue in question is poor, often with an aim to develop pertinent propositions and hypotheses for further inquiry. Indeed, the research question also implies an effort to verify causal relations between the "factors" and their consequences in staff integration, which leads to an explanatory study.

According to Yin (1994), any of the five research strategies can be used to conduct research, depending on the specific situation. My doctoral research focused primarily on contemporary events—mergers. Therefore, experimental and historical strategies may be excluded. Given the fact that few existing documents or studies concerning the problems in question are available, a case study approach seemed to be a suitable choice. As Rossman and Rallis (1988) note, a case study can be used when the researcher seeks to understand the deep meaning of an individual's experiences and how he or she articulates these experiences. Nevertheless, the theoretical bases and previous experiences in mergers elsewhere will shed light on the understanding of the phenomena of a particular case.

Unlike some researchers who prioritise qualitative data in case studies (Gomm, Hammersley & Foster 2000), Yin (1994, 14–15) claims that the case study does not necessary exclusively follow qualitative methods. Rather, case study research can be applied to broad areas of inquiry, including both exploratory qualitative and explanatory quantitative approaches. The choice of a quantitative or qualitative method is dependent on whether a study is looking for causal links or for deep understandings (Newman & Benz 1998b, 2). The research question of my doctoral study involves both.

The question of my PhD research appears to infer a quantitative approach, since it informs a causal relationship in which staff integration can be read as a dependent variable, while the influencing factors are the independent variables. The quantitative nature is likely to lead the research to be conducted

in a deductive way—from theory to hypotheses, then followed by an empirical test. One of the important preconditions of using the quantitative method is the availability of relevant theories. Theories refer to "a set of organically connected propositions that are located at a higher level of abstraction and generalization than empirical reality, and which are derived from empirical patterns and from which empirical forecasts can be derived" (Corbetta 2003, 60). However, there is an absence of well-formulated theories concerning the research problems in this study. Therefore, a qualitative study was applied to help develop the theoretical hypotheses. In order to verify these hypotheses and to specifically identify key factors at work, a quantitative strategy was necessary.

In terms of implementation, Creswell (2003) distinguishes between sequential and concurrent procedures. For this study, sequential procedures were more suitable. The sequential strategy includes three models: sequential explanatory, sequential exploratory and sequential transformative. This study takes a sequential exploratory approach, which is characterised by "an initial phase of qualitative data collection and analysis, which is followed by a phase of quantitative data collection and analysis" (Creswell 2003, 215). The qualitative approach is used to explore issues concerning staff integration in mergers and informs tentative hypotheses. Quantitative methods are used for testing these hypotheses. My study was conducted in two stages, as described in Figure 3.
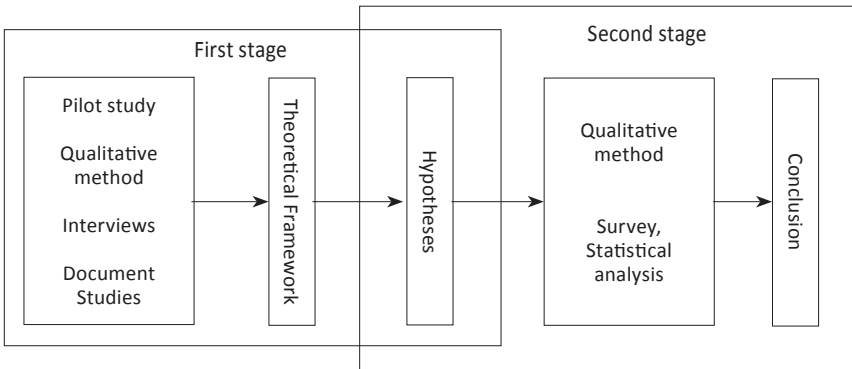
Figure 3. The procedures and methods of the case study

First, a single-case pilot study was conducted. According to Yin (1994, 74), the pilot study is neither a rehearsal nor a pre-test of the final study; rather, it helps "an investigator to develop relevant lines of questions—possibly even providing some conceptual clarification for the research design as well" (1994, 74). The pilot study here serves three purposes: (1) to test the feasibility of research questions and the relevance of the research focus; (2) to develop preliminary hypotheses or propositions and (3) to provide a basis for the research design in the next stages. Primary data are acquired from in-depth interviews, documents and archives.

Based on intuitive and empirical understandings from the qualitative pilot investigation, I sought to interpret the phenomenon of staff integration within the framework of institutional organisation theory, relying heavily on the existing research literature. Yin (1994, 32) has stressed the importance of using a theoretical framework in case study research, whether this is explanatory, descriptive or exploratory: "The use of theory, in doing case studies, not only is an immense aid in defining the appropriate research design and data collection but also becomes the main vehicle for generalising the results of the case study" (p. 32). In this study, the consistency between the empirical findings of the pilot study and the theoretical propositions informed by institutional organisation theory enhanced the validity of the research. Some theoretical hypotheses were developed during this stage.

The next stage of the empirical study was quantitatively oriented. Based on the knowledge obtained from the previous research stages, survey questionnaires were designed and sent to all the academic staff members involved in the mergers of the case study institutions. The analyses of the quantitative data could then be used to test the hypotheses. The conclusion part then analysed and compared both the qualitative and quantitative empirical results and developed comprehensive understandings of the research problem.

Multiple factors underlying the decision to utilise mixed methods

As presented above, my main decision to use mixed methods was guided by insights from the classic methodological literature. In particular, I chose the

mixed methods approach because it was appropriate for the research question in my doctoral study. In this respect, it reflects a particularistic discourse or a conventional view that research questions guide decisions about research design and methods (Bryman 2007).

Besides the research question, my general purpose for conducting my doctoral research was to gain a fuller understanding of a complex phenomenon—academic staff integration in post-merger universities. I chose a specific merger case for investigation because I had gained work experience in one of the three pre-merger institutions and some later experience as an administrator in the provisional Education Commission, which approved the merger and was involved in the process of dealing with a number of post-merger issues. As an observer, I was fully aware of the complexity of the issues regarding academic staff integration and the challenges faced by both the academic staff and managers of the post-merger university in dealing with these issues. To respond to the situation, it was important to generate new knowledge for understanding the issues and to test new ideas. As implied by Newman et al. (2003), such purposes often lead to mixed methods research.

In terms of making decisions about my research design, both my considerations regarding my research question and purpose corroborate general suggestions from the mixed methods literature. Here, I want to stress that my use of mixed methods is part of my case study design. Although case studies have often been considered in the realm of qualitative research (Creswell 1998), Yin (1994) suggests that both qualitative and quantitative approaches can be applied to case studies.

I am inclined to Yin's position because of my subscription to the research paradigm of pragmatism. Although the quantitative research in my doctoral research partially reflects a positivist paradigm, my study was not intent on making a broader generalisation. Rather, I believe that the meaning of causality can only be interpreted within a specific context. As such, my study finds its root in pragmatism, in the middle of the continuum between positivism and interpretivism.

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As mentioned earlier, researchers following the pragmatist paradigm often think that mixed methods are a necessity, which is similar to the he universal discourse. However, based on my own research practice, I do not see the universal and particularistic discourses as mutually exclusive. Regardless of my belief in pragmatism, which is consistent with the universal discourse, my choice of mixed methods in my doctoral research was primarily driven by my research question. Nevertheless, because of my inclination towards pragmatism, I am more likely to raise research questions that are more suitable for mixed methods.

My decision regarding the use of mixed methods was also based on my experience of and confidence in using both qualitative and quantitative methods. Before I started my PhD research, I wrote two master's theses, which respectively applied quantitative and qualitative methods. Thus, I believed that by using mixed methods, I could make use of my strengths. Moreover, I thought that a PhD thesis applying mixed methods could be an advantage in terms of demonstrating my research capacity. Especially in the higher education research communities in Europe, the vast majority of studies are qualitative in nature. My proven skills in using both qualitative and quantitative methods would possibly make my research distinctive. Nevertheless, such practical reasons were secondary to my main considerations following the suggestions of the methodology literature.

Finally, the type of research question I raised was suitable for one specific mixed methods approach, namely a sequential exploratory approach. Other kinds of questions may require different types of mixed methods approaches.

Conclusions

Based on a review of the mixed methodology literature and my own practice of conducting mixed methods research, I can conclude with the following inferences regarding the question: What drives the choice of mixed methods in higher education research? First, the primary drive regarding the choice of mixed methods should follow the doctrine of the methodology textbooks,

which accentuates the fitness between research question/purpose and research design/method. Although there are different types of mixed methods research, a shared feature of most is that the research question entails both exploratory and explanatory inquiries.

Second, researchers' beliefs in research paradigms may be a motive for them to conduct mixed methods research. The literature suggests that if researchers follow a pragmatist paradigm, then they will likely apply mixed methods in their research because it would best achieve the research goal. The paradigm of research pragmatism may also influence researchers to pose certain questions, which by nature require mixed methods to gain a full understating of the truth. As implied by Creswell et al. (2003), mixed methods add special value to research when the methods better serve the research purpose. Regardless of my strong beliefs in pragmatism, I have not always use mixed methods in my research. In many cases, my research tackles qualitative explorations only for practical reasons, though I see my qualitative research as one part of a mixed methods approach, with the expectation that the other part could be done in future studies.

Third, reasons of practicality do affect the choice of research design. Although one may be keen to conduct research by applying a mixed methods approach, one may not be able to simply because of time constraints and resource shortages. Conducting mixed methods research generally takes significantly longer than when a mono-method is employed. When conditions do allow, Bryman (2007) suggests a number of practical reasons to consider mixed methods, such as to be attractive to stakeholders, to have a better chance of getting funding or being published, etc. The use of mixed methods could be a way to make both a researcher and his or her research distinctive in the field of higher education research.

In this chapter, I have engaged in a preliminary effort to explore possible reasons driving researchers' decisions regarding mixed methods. In the higher education literature, there has been very few studies addressing issues relating to the use of mixed methods. It is much rarer to see discussions addressing the reasons behind researchers' decisions regarding mixed methods. I take the

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opportunity to call for future research to review and analyse existing higher education studies in the area of mixed methods. It would also be interesting and useful to interview and survey the writers of these studies about what drive their choices of using mixed methods design.

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Researching social stratification in higher education: Methodology and paradigms

James Anyan

Introduction

Researchers of sociology of education, like other researchers in the behavioural and social sciences, are often faced with the dilemma of choice of paradigms, methods and methodology. The controversy regarding the propriety of either adopting a wholly qualitative approach, and thereby presenting readers with the "dissonant music of inequality" of stratification, or going completely quantitative and subsequently presenting readers with the mathematics and statistics of the same phenomenon is yet to abate. A middle-ground approach that has increasingly gained currency has been to leverage the strengths of both the qualitative and quantitative strategies through the adoption of the mixed methods approach and, thus, limit the weaknesses—perceived or real—of the two traditional and dominant approaches to research. Others have had to question whether the strict separation of the quantitative and qualitative research spheres is an exercise in futility, since the boundaries of the two domains can sometimes become blurred (Anyan 2016; Bryman 2012; Creswell 2014; Denzin & Lincoln 1994; Flyvbjerg 2006; Savenye & Robinson 2005). The choice of the mixed methods approach, however, is only half the

battle; the researcher is then confronted with the adoption of an "appropriate" paradigm(s) to give some grounding to their methodological choices. It is also often the case that the researcher's beliefs tend to dictate the methodological pace. Either way, thoughts and considerations would have to be given to both the methodology and paradigms in the research process.

This chapter does not set out to join the qualitative–quantitative rift. I shall rather devote this space to highlight the evolution of the mixed methods approach and its use in higher education research. The discussion further extends to pragmatism and the transformative research paradigms, their association with the mixed methods approach as well as some of the challenges accompanying their adoption and use.

Mixed methods

The mixed methods research strategy, otherwise known as *multimethod* or *mixed methodology*, emerged in the late 1980s and early 1990s as a "third force", complementing the two traditional approaches (qualitative and quantitative) with its use and spanning fields like sociology, education, management, evaluation and health sciences. The works of Tashakkori and Teddlie (2003; 2010)—*Handbook of Mixed Methods in the Social and Behavioural Sciences* sought to offer a more comprehensive overview of this research strategy. Its paths can further be traced to the emergence of a number of journals such as the *Journal of Mixed Methods Research*, *International Journal of Multiple Research Approaches* and *Fields Methods* (Creswell 2014; Hall 2013). Morgan (1998), however, traces the origin of mixed methods to the late 1950s and mid-1960s and credits Donald Campbell and the works of his colleagues on unobtrusive measures as pioneering this research strategy. The term *mixed methods* is generally used to refer to research that has elements of both the qualitative and quantitative research strategies. The mixing of both quantitative and qualitative data, supposedly, is geared towards achieving a "stronger understanding of the problem" or question than either of the traditional strategies could provide

(Creswell 2014, 215; Bryman 2012). However, Sandelowski (2003) believes that it is merely a methodological fashion.

Creswell (2014) has identified three different rationales and values for the adoption of the mixed methods approach. When researchers choose mixed methods by virtue of being able to draw on the strengths of both the quantitative and qualitative approaches, while minimising their limitations, they are operating on what he calls the *general level*; that is to say, the primary reason for adopting the mixed methods approach are the perceived greater strengths and fewer limitations resulting from the combination of the two traditional approaches, as opposed to the use of either a wholly qualitative or quantitative approach. Those who adopt it on the grounds of access to both kinds of data, as well as being able to bring some elements of sophistication and complexity to appeal to enthusiasts of new research procedures, are operating at the *practical level*. A *procedural level* user would argue that the use of the mixed methods approach brings a more comprehensive understanding to the research problem by facilitating a comparison of different perspectives from the data, the interpretation of the quantitative data with the qualitative, among others.

A number of scholars have identified different ways of classifying and designing studies that adopt the mixed methods research strategy. Morgan (1998) observes that the combination of both quantitative and qualitative research designs has been done such that there are some elements of complementarity and division of labour for each of the strategies. These have been achieved through the making of two primary decisions: (1) a *priority decision*, which pairs the principal method with a subordinating one, and (2) a *sequence decision*, which determines whether the subordinating method precedes or succeeds the principal. To illustrate Morgan's (1998) proposition, if a researcher decides to carry out a survey of students with disabilities in a given higher education system, and he or she decides to interview a few students to inform what goes into the survey design, it is obvious that the quantitative approach has been chosen as the principal method in the priority decision. Since the interview comes first, it is then given the highest weighting as far as the sequence decision is concerned.

For Bryman (2012), the purposes of the study should guide the design to be adopted. He spells out 18 different ways of combining quantitative and qualitative data, including: (1) *triangulation*—when seeking a mutual corroboration of findings; (2) *offset*—to leverage the strengths and limit the weaknesses of both the quantitative and qualitative approaches; (3) *completeness*—the notion that combining qualitative and quantitative research would result in a more comprehensive enquiry; (4) *process*—when the assumption is that quantitative research would cater to the structures of social life while the qualitative would give a sense of the process; (5) *different research questions*—when the assumption is that each of the research questions is best suited to either a quantitative or qualitative research and (6) *explanation*—when one of the two approaches is expected to explain the results generated by the other. He adds that mixed methods could also be used on the grounds of *instrument development, sampling, credibility, illustration, diversity of views*, among others.

Creswell (2014) has also set out two broad categories for the design of mixed methods research—basic and advanced. The basic mixed methods design comprises the *convergent parallel*, *explanatory sequential* and *exploratory sequential*. As the names suggest, the *convergent parallel* is adopted when the goal is to merge data from both the quantitative and qualitative to show the extent of convergence or divergence, and with the view to achieving a comparison of the perspectives from both sets of data. The *explanatory sequential* seeks an in-depth understanding and an illumination of the results from the quantitative data. Put simply, the qualitative data is used to explain the quantitative results. When the development of better instruments for measurement is the goal, the *exploratory sequential* comes in handy. As regards the advanced mixed methods design, Creswell (2014) further identifies the *embedded*, *transformative* and *multiphase* designs. The *embedded* design is used to gain an understanding of the views of participants, for example, for an experimental intervention, while the *transformative* is used in situations in which the needs of a marginalised group in society need to be understood in the pursuit of an agenda for reform and action. The *multiphase* design would

be more suitable in situations in which formative and summative evaluations are needed for a particular intervention programme.

A closer look at the classifications of the mixed methods designs, as spelt out by the three authors (Bryman 2012; Creswell 2014; Morgan 1998) indicates that they share practically the same characteristics. The main differences, as far as I can see, are nomenclatural.

Paradigms

The adoption of a particular method or methodology for a research enquiry would satisfy just one component of the research process. Researchers need to be clear and explicit about the paradigm(s) or philosophical assumptions underpinning their research, since they tend to drive the data gathering, analysis and interpretation. Bryman (1988) defines a paradigm as "a cluster of beliefs and dictates which for scientists in a particular discipline influence what should be studied, how research should be done, [and] how results should be interpreted" (p. 4). Conversely, Guba (1990) sees it simply as "a set of beliefs that guide action" (as cited in Creswell 2014, 6). A paradigm is otherwise known as a *worldview* (Creswell & Plano Clark 2007; Teddlie & Tashakkori 2009), *epistemologies* and *ontologies* (Crotty 1998) and a *mental model* (Greene 2007), to mention a few. In the literature, four types of paradigms can generally be found: *positivism*, *constructionism*, *transformative* and *pragmatism* (Creswell 2014; Hall 2013). Some authors reason that since positivism and post-positivism are more suitable to quantitative research and constructionism (social constructivism) to qualitative research, mixed methods researchers would be better served by going with the transformative and pragmatist paradigms (Creswell 2014; Hall 2013).

Hall (2013) argues that mixed methods researchers are faced with three options in their quest for an appropriate paradigm(s) to underpin their research. They can either adopt an *a-paradigmatic stance or a single or multiple paradigmatic stance*. He rebuffs the proposition for the adoption of an a-paradigmatic stance to research, as proposed by Patton (1990), for example,

which encourages researchers to sidestep the issue of paradigm by ignoring it altogether. He contests that research can be paradigm-free and that the fact that researchers do not explicitly state the paradigm(s) underpinning their research does not mean they do not implicitly have one. "Epistemology and methodology are related in that the epistemological position adopted constrains the type of data considered to be worth collecting and in the way that data is to be interpreted" (p. 75). Regarding the multiple paradigmatic stance, Hall (2013) opines that since proponents do not state which of the paradigms should be mixed and how this should be done, it makes its adoption problematic. For him, mixed methods researchers would find that the use of a single paradigm would be the best fit, stating the transformative and the pragmatic as the most suitable.

Pragmatism

As the name suggests, the pragmatic paradigm adopts a "what works" approach to research enquiry, with a view to finding solutions to the research problem at hand, using all the means and approaches available, without focusing on any particular research method (Anyan 2016; Creswell 2014; Patton 1990; Rossman & Wilson 1985). The counter argument against the "what works" approach is that it is difficult to predict what works until the research is completed and the findings have been interpreted (Hall 2013). The key tenets of this paradigm include: (1) non-committal to any particular paradigm or system of reality; (2) the intended consequences of the research determines what should be researched and how; (3) freedom to choose research techniques, methods and procedures; (4) researchers consider all the different approaches at their disposal for data gathering and analysis, without due regard to the quantitative–qualitative divide; and (5) the research contexts may be political, social or historical (Cherryholmes 1992; Creswell 2014; Morgan 2007). As far as the case of mixed methods researchers goes, Creswell (2014) believes that "pragmatism opens the door to multiple methods, different worldviews, and different assumptions, as well as different forms of data collection and analysis" (p. 11). Bergman (2008, 14) criticises pragmatism for being "vague

and methodologically unsatisfactory", since it does not take into account the difficulties one might encounter in combining both the qualitative and quantitative approaches to research.

Transformative

According to Mertens (2010), the transformative paradigm functions as an "umbrella for research theories and approaches that place priority on social justice and human rights" (p. 473). It is relevant for researching issues of discrimination and oppression in all its appearances, including ethnicity, race, gender, poverty, disability, immigrant status and the "multitude of other characteristics that are associated with less access to social justice" (p. 474). Its application can be extended to studies that examine the power structures that perpetuate social inequities (Anyan 2016; Mertens 2010). The transformative paradigm was previously referred to as *emancipatory* (Cohen et al. 2005; Mertens 2009), but Mertens (2009) renamed it as *transformative*, seemingly stressing that with the research being conducted, the researcher has an agentic role in the transformation of society, not merely seeking emancipation for others—the oppressed and powerless (Anyan 2016).

The transformative paradigm is claimed to have emerged in response to that of the constructivist, which is critiqued for its weak advocacy in regard to championing an agenda that will transform the plight of the underprivileged in society, despite its strength in seeking to understand the research problem from the viewpoints of participants (Anyan 2016; Creswell 2014; Mertens 2010). Transformative research "provides a voice for [the] participants, raising their consciousness or advancing an agenda for change to improve their lives" (Creswell 2014, 10). This paradigm can be integrated with theoretical perspectives such as feminism, queer theory, disability theory and critical theory. The focus of the transformative paradigm on issues of social justice and marginalisation is rather deprecated as giving it a narrow focus in regard to its applicability in social scientific research (Hall 2013), with Tashakkori and Teddlie (2003) going as far as relegating it to "the purpose of a research project" (p. 860) instead of seeing it as a research paradigm. Be that as it may,

to sociologists of higher education, it is a force to reckon with, and the issue of its wider applicability in the social sciences should be a matter of secondary importance.

Mixed methods, pragmatism and the transformative paradigms in higher education research

The number of studies on stratification in higher education that have employed mixed methods, including an explicit statement of the paradigm underpinning the research, are quite few. Readers are often left to infer the genre of the research. Berg's (2010) *Low-Income Students and the Perpetuation of Inequality: Higher Education in America* employed both qualitative and quantitative data by using national data on family income and education, interviews with college students and faculty as well as classroom observation in order that "the reader is provided with both a comprehensive review of the literature and statistics, but also vivid stories coming from interviews with low-income students" (p. 5). He does not, however, explicitly state that a mixed methods strategy was employed for the study. It is obvious from the data gathered and the intent for doing so that the study was underpinned by a pragmatic philosophy or worldview. From the outset, Berg (2010) identifies with the very community he was researching by telling his own story of marginalisation. "This is a book of real life stories and I feel obliged to tell mine...I did have a college experience colored by my social position" (pp. xiii, xiv). By forthrightly telling his own story, Berg (2010) was indirectly communicating to the reader the possible biases with which he pursued the study. His work further intersected issues of race, class and gender. Clearly, this work also bears the marks of the transformative paradigm discussed earlier. This argument is strengthened by the fact that the author presents an agenda for change in his concluding remarks:

> *The passionate efforts of many in the education community alone cannot change the basic unfairness of our society. We must do better. The fate of those students presented in this book, and those like them to come, as well as that of our society as a whole, rest upon our actions.* (p. 167)

Good's (2015) *Improving Student Learning in Higher Education: A Mixed Methods Study* was pursued as an embedded mixed methods study, which neatly fits into Creswell's (2014) advanced mixed methods category. Good (2015) clearly states the paradigms underpinning the study. Her description of the paradigms mirrors what Hall (2013) calls the multiple paradigmatic stance:

> *While my primary stance was pragmatic, I shifted worldviews during different phases of the study. Specifically, I approached the quantitative data analysis as a postpositivist, the qualitative analysis as a constructivist, and during the study's integration phase I applied my pragmatic worldview again. I intentionally shifted paradigms at different stages to be true to each method's philosophical underpinnings.* (Good 2015, 45)

The main research strategy for the study, which sought to evaluate the impact of a faculty development intervention programme (jmUDESIGN) on student learning, was identified as the quantitative strand, while the qualitative strand was used to understand the experiences of the faculty. Thus, in reference to Morgan's (1998) categorisation of mixed methods designs, the priority decision was assigned to the quantitative strand, with the qualitative playing a complementary role. As regards the purpose for the adoption of the mixed methods design, the elements of triangulation, completeness and explanation according to Bryman's (2012) classification, discussed earlier, are also visible.

Persistent Elitism in Access to Higher Education in Ghana, designed as a dual-case study, was pursued as a mixed methods research, and as far as the priority decision was concerned, greater weighting was given to the qualitative strand. However, for a more comprehensive understanding, quantitative data were gathered, analysed and interpreted concurrently with the semi-structured interviews. The quantitative data served not only as a confirmation or disconfirmation of the arguments put forward by the participants (students, graduates, officials of higher education institutions and government), but also complemented and, in some cases, "supplemented" the qualitative data, as the case might be. Anyan's (2016) study further intersected five variables of stratification—gender, parental education, family income, geographical

location and disability—focusing primarily on the situation and experiences of students, particularly those at the margins of Ghanaian society.

Paradigm-wise, the study could best be described as employing a multiple paradigmatic stance. Elements of the constructivist, pragmatic and transformative paradigms could be seen. The difficulties associated with data collection in the research context primarily informed the pragmatic stance, in addition to the use of multiple conceptual frameworks; all available means were employed to understand the research problem. The following justification was offered for the adoption of the multiple paradigmatic stance:

> *...the integration of both the constructivist and transformative paradigms (pragmatic) ensured that the participants, particularly the students at the margins, were not only given a voice and heard, but also an agenda to make the distribution of HE opportunities more equitable for the historically underserved but majority groups in the Ghanaian society, such as students from the rural areas and schools, those with disabilities and from very poor income groups was put forward.* (p. 74)

Further, the author's statement of bias and motivations for the pursuit of the research, as well as the presentation of recommendations based on the findings of the research, were deemed to reduce the stratification observed, making higher education in Ghana more equitable for disadvantaged students, which is indicative of the transformative paradigm.

Museus and Griffin (2011) lament the manner in which the use and overreliance on a unidimensional analysis for the study of individuals and groups in higher education tend to limit the understanding of such groups. In their work *Mapping the Margins in Higher Education: On the Promise of Intersectionality Frameworks in Research and Discourse*, they propose intersectionality research as a measure to counter such limitations, arguing that "[t]he failure of higher education researchers to make the intersections of social identities and groups more central in research and discourse limits the existing level of understanding of and progress in addressing equity issues in higher education" (p. 10). In addition to the benefits of intersectionality, the authors further allude to sociologists of higher education profiting from the

"potential of mixed-methods research in better understanding how multiple identities shape the experiences and outcomes of populations in higher education" (Museus & Griffin 2011, 11).

Conclusion

The mixed methods research strategy is yet to become commonplace in higher education research, due in part to it being a relatively novel approach compared to the traditional qualitative and quantitative research strategies. I forecast that its use will increase, particularly among those interested in the sociology of higher education, who pursue research that demands the intersection of different variables to gain a fuller picture and understanding of social phenomena. Like the two traditional strategies, it merits adding that the mixed methods approach has its own limitations, despite its obvious strengths. The researcher needs to be certain as to whether or not the research enquiry in question justifies the use of a mixed methods design. It should by no means be regarded a methodological "silver bullet". The paradigmatic orientation, the nature of the research problem and the research questions and objectives should serve as useful guides in the choice of a research strategy.

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II
Conceptual Approaches Utilised to Understanding University Transformation

Policy transfer in higher education policy formation

Johanna Moisio

Introduction

The year 2006 marked the start of preparations leading to university reform in Finland. The national discussion on university reform was held concurrently with the higher education (HE) modernisation discourse in the Council of the European Union (EU). There is existing research on the development of EU-level cooperation and the development of Finnish HE policy, but relatively little research on the significance of EU HE policy cooperation in member states. The research problem, then, is the connection between EU and national-level discussions on HE policy.

The research presented in this chapter evaluated the connection between national higher education policy formation and EU-level discussion on higher education. Policy transfer theory has been tested by Moisio (2014) as an explanatory model for studying the success or failure of EU cooperation in HE policy. The policy transfer method pays particular attention to the policy formation process and the possibility of transfer of ideas, policies and arrangements from one political setting to another setting or system (Radaelli 2000; Dolowitz & Marsh 2000).

Policy learning and policy transfer

There is some evidence that the EU education policy discourse has been transferred to EU member states. Lange and Alexiadou's (2010) research differentiates various policy learning styles (mutual learning, competitive policy learning, imperialistic policy learning and surface policy learning) in education policy by categorising different types of interactions between the same range of public policy actors (member states themselves and member states and the European Commission). The concept of mutual learning holds that qualitative knowledge about different practices is as important as quantitative information. Participation in mutual learning is voluntary, and participating countries/member states have positive incentives to participate (in clusters and peer learning activities) when the knowledge from these events may help them solve national policy problems.

According to Lange and Alexiadou, the concept of competitive policy learning focuses more on the quantitative side of cooperation. Various EU institutions (Eurostat, Cedefop and the European Training Foundation) develop statistical analyses of education practices in the EU. Competitive learning starts from specific assumptions, indicators or benchmarks, and discussions are limited to the selected problems. While mutual learning is aimed at the deep learning of traditions and politics, the goal of competitive learning is to open up international *comparisons*. Competitive learning depends on the pressure created on member states. Because states are motivated to preserve their good reputation, pressure becomes effective when combined with media attention. Since statistics are created mainly by formal institutions, competitive learning is less of a bottom-up process than mutual learning (pp. 452–454). Lawn and Lingard's (2002, 300) earlier study also stresses the importance of statistical production—previously done mainly by the OECD but latterly by the EU as well—and the statistical comparison that is central to harmonisation. However, Erkkilä (2014) argues that the European Commission has increased its role in HE policy by using global university rankings. These rankings have created "a political imaginary competition, where European universities must be reformed if they are to be successful" (p. 92).

The concept of imperialistic policy learning refers to the attempt by some countries to export their national education policies to others as well as to the European Commission's policy agenda (Lange & Alexiadou 2010, 452–454). There is some evidence that this has been one of the goals of the United Kingdom's HE policy (Alexiadou & Lange 2011). Conversely, surface policy learning refers to a more passive or negative response by a member state, which is an attempt to minimise the influence of the Commission or other member states. Learning, for the most part, entails only observation of possible infringements of national sovereignty that should be reported back to national administrations. Another manifestation of surface policy learning, according to Lange and Alexiadou (2010, 455–456), is the national progress reporting for Education and Training 2010/2020, which sometimes only describes member states' own national education policies, even with regard to benchmarks that differ in scope or timeline from those mutually agreed at the EU level.

As members of international structures or regimes, national governments may have to adopt policies as part of their obligations. The question here is whether policy transfer within the EU can be interpreted as coercive, given that individual nations have, in principle, joined the EU voluntarily. Dolowitz and Marsh (2000, 14–15) point out that each member state does have influence over the adoption of EU policies; thus, they actively and voluntarily shape EU politics. It is therefore possible to argue that policy transfer in the EU is both obligated and negotiated.

Contemporary policies are increasingly affected by policy transfer, especially in the European context, because of close cooperation between many policy fields. As part of globalisation and Europeanisation, politicians and civil servants have become acquainted with each other, and at the same time, international organisations and policy entrepreneurs "sell" policies around the world. Teichler (2004) wisely reminds us, however, that although the increase of knowledge transfer across nations has typically been seen as a phenomenon of globalisation, one must keep in mind that governments are highly active in shaping the rules of knowledge transfer, doing so in order to maximise their

national gains (p. 13). The penultimate section of this chapter examines the concept of policy transfer in greater depth.

Policy transfer and explaining lesson drawing

Radaelli (2000) and Dolowitz and Marsh (2000) define policy transfer as a process in which knowledge about policies, administrative arrangements, institutions and ideas in one political setting or system (past or present) is used in the development of policies, administrative arrangements, institutions and ideas in another political setting or system. Dale (1999) identifies a total of eight mechanisms under policy transfer: borrowing, learning, teaching, harmonisation, dissemination, standardisation, installing interdependence and imposition. Policy transfer is the comprehensive term for all these mechanisms, covering both voluntary and coercive transfer in different circumstances and by various actors.

The concepts of policy transfer and policy diffusion are both founded on the notion that the ideas of other countries or systems may be worth testing elsewhere. These policies may either spread or be transferred to new environments. The difference between policy transfer and policy diffusion is that diffusion studies tend not to reveal anything about the content of new policies, focusing more on process than on substance (Dolowitz & Marsh 1996, 345).

In the globalised world of the twenty-first century, policy transfer is a policy formation tool that has gradually increased in use between nations.[1] Public policy is something that is both global and national, and policy-makers study other political systems for new ideas about policies, programmes, institutions and jurisdictions, which they look to apply to their own context. The policy transfer concept can be used either as an independent variable—to explain

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[1]   Dolowitz and Marsh (2000) mention three reasons for increasing policy transfer: global economic pressure, rapid growth of communications and the influence of international organisations.

why a particular policy was adopted—or as a dependent variable, to explain why transfer occurs (Dolowitz & Marsh 1996, 354).

The following questions can usefully be asked about policy transfer. Why engage in policy transfer? Who transfers policy? What is transferred? From where and why? How is the transfer composed, and what are the different degrees of transfer? How is the process related to policy success or failure (see Radaelli 2000; Dolowitz & Marsh 2000)? It has been shown that at least six main categories of actors are involved in policy transfer: elected officials, political parties, civil servants, pressure groups, policy entrepreneurs/experts and supranational institutions (Dolowitz & Marsh 1996, 345).

Policy transfer may be either voluntary or coercive and includes objects such as policy goals, structure and content, instruments and techniques, institutions, ideology, attitudes and concepts as well as negative lessons (Dolowitz & Marsh 1996, 350). *Voluntary transfer* is usually based on a perceived dissatisfaction with a current state or even on observed policy failure. Uncertainty about the reasons behind problems or the effects of previous decisions may prompt actors to search for policies they might wish to borrow. As Haas (quoted in Dolowitz & Marsh 1996, 347) put it: "International collaboration…is an attempt to reduce uncertainty".

Coercive transfer can take place either directly or indirectly. *Direct coercive transfer* occurs when transfer is required by an external actor. However, that obligation is rarely imposed by another state; international institutions are typical players in direct coercive actions, and EU legislation is a good example of this kind of measure. *Indirect coercive methods* derive from a variety of situations, including technological development, economic pressures and international consensus. Fears of being left behind on an important public issue may also generate attention and lead to policy transfer: "A country can indirectly be pushed towards policy transfer if political actors perceive their country falling behind its neighbours or competitors" (Dolowitz & Marsh 1996, 347–349). This can be driven by international comparisons, which are made against the current best. The international flow of national data has increased, and comparison is now an everyday business, usually conducted

between countries. It has been argued that comparison is a highly visible tool for governing at all levels: at the organisational level for management purposes and at the state level for governing and measuring performance (e.g. PISA) (Grek, Lawn, Lingard, Ozga, Rinne, Segerholm & Simola 2009, 10).

Another question concerns why countries engage in policy transfer. Both supporters and opponents of various policies use reasoning, as needed, to win support for their ideas. It has been noted that policy lessons from abroad can also be used as *neutral truths*, but equally, these truths can also be used as political weapons (Dolowitz & Marsh 1996, 346). Dale observes that *policy borrowing*, in particular, is often related to policy legitimation and political usefulness since borrowing is voluntary and is conducted between more or less compatible systems: "We don't usually borrow something we don't know we have a use, even a need for..." (Dale 1999, 9).

The factors that may constrain policy transfer are multiple, and the viability of the transferred subject will be judged at a national level according to existing norms and expectations (p. 9). The more complex the policy or programme, the more difficult it is to transfer, and differences or similarities between host and target countries or systems also matter. However, the simpler the expected outcomes are to predict, the easier the transfer becomes. Bureaucratic size and efficiency may also influence transfer, as well as economic resources, since implementation often requires financial measures (Dolowitz & Marsh 1996, 354).

Policy learning can be understood as one of the tools of policy transfer,[2] which entails learning about organisations, programmes or policies. The definition of the term is quite broad and may mean that some form of learning is likely to be present in any mechanism of policy transfer. According to Dale (1999, 10–11), normal policy-making is associated with learning about instruments, while learning about policy goals arises in relation to reforms or shifts in policy paradigms.

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2   According to Hill (1997), policy transfer theory builds on Rose's (1991; 1993) work on policy learning.

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Policy transfer through *harmonisation* is commonplace in some areas of European integration. The harmonisation mechanism works through collective agreement, whereby all member states pool some of their sovereignty for the benefit of the EU. *Dissemination* differs from harmonisation in its dimension and extent: the OECD is a good example of an international actor that disseminates ideas to participant countries that do not have the competency to harmonise policies. *Installing interdependence* is a policy transfer mechanism that usually concerns issues that go beyond the scope of any nation state (peace, environment or human rights). It is focused purely on policy goals and usually works in a bottom-up manner, including the whole of civil society. Finally, *imposition* is coercive and is the only mechanism that does not require learning, persuasion or cooperation (Dale 1999, 9–15).

Bulmer and Padgett (2004) use another typology to define different types of policy transfer. *Emulation* or copying is the strongest form of transfer, involving the borrowing of a policy model, in its entirety, from another jurisdiction. Conversely, *synthesis* includes elements of a policy from several sources. *Influence* is a weak form of transfer, which only inspires a new policy. Finally, an *abortive* measure occurs when transfer is hindered by the borrower (p. 106).

In order to understand policy transfer, it is necessary to recognise several other factors. It is not enough to treat transfer as if it were an "all-or-nothing" process: the motivations involved must also be taken into consideration. The policies may develop over time, especially when borrowing policies from elsewhere. Second, different actors may have different motivations. It is likely that politicians and policy entrepreneurs will introduce a process on a voluntary basis, but when international organisations become involved, this is likely to result in some coercive policy transfer—although, of course, this depends on the particular action. Finally, the timing of the transfer also affects the process. In times of political and economic stability, transfer is likely to be voluntary. However, during political crises, policy transfer is likely to have some coercive elements (Dolowitz & Marsh 2000, 16-17).

The concept of policy diffusion is a little different from that of policy transfer. Policy diffusion is analysed to identify why some governments come to adopt policies brought from elsewhere and why others are more reluctant—why governments differ in their readiness to act. At one end of the scale is *immunity*, where no diffusion of a policy is possible because the organisational or state unit is not open to new external ideas; at the opposite end is *isomorphism*, meaning that diffusion of ideas and concepts occurs quite easily, producing homogenisation across states. In reacting to external policy pressure, there are three means or strategic choices: *resistance*, *imitation* and *adaptation*. Resistance is a likely initial reaction to external pressure, protecting already established values from external ideas. Strong resistance may make the state or organisation immune to new ideas and concepts. Imitation relates to the concept of isomorphism, whereby new ideas are adopted smoothly and receptively (Bache & Olsson 2001, 218).

Adaptation may occur on a conceptual level or in practice, or even both. On the conceptual level, an organisation or state may adopt ideas from the external world as a rational strategy. However, changes at the conceptual level may also change practice. The discourse around new ideas in an organisation or a state unit may impact "like a virus that spreads and infects the behaviour" (Bache & Olsson 2001, 218). Adaptation may also work like a translation process, in which ideas and concepts may be given a local perspective (see Bache & Olsson 2001, 218; Karakhanyan, van Veen & Bergen 2011, 23–24). While policy diffusion emphasises structures, the concept of policy transfer stresses policy content and the role of agency in transferring ideas and practices; thus, the concepts are interactive (Karakhanyan et al. 2011, 58).

Policy transfer in the EU

Radaelli (2000) attempts to understand policy change within the EU by utilising the concept of policy transfer. He observes that the EU is in fact an enormous platform of different policy transfers from dominant countries and/or from advocacy coalitions to other countries and coalitions. The European

Commission can be seen as an active policy entrepreneur in this process, acting in concert with other "policy transfer activists" such as pressure groups or policy experts. Policy transfer implies that "policy diffusion is a rational process wherein imitation, copying and adaptation are the consequences of rational decisions by policy-makers" (Radaelli 2000, 26, 38).

Radaelli (2000, 31–32) describes the legitimation of the European Monetary Union by a transfer process that included several central elements: history and learning, bargaining, the anchoring power of the Deutschmark and consensus on the paradigm of policy credibility. Policy transfer can occur both as dependent and independent variables. One can explain policy transfer as a process or use policy transfer to explain policy outcomes (Dolowitz & Marsh 2000, 8). Radaelli (2003, 12) argues that policy learning within the EU context is mostly about power. The formation of indicators, peer reviews and common guidelines supports this view as they produce hierarchies of various responses to political problems and create different pressures on member states to adapt.

According to Bulmer and Padgett (2004), there has been little consensus on how policy transfer really works in the EU. Their argument is that because there are varied governance structures within the EU, they generate various transfer types. This, in particular, explains why the EU is such a good "laboratory" for testing the policy transfer concept. The authors identify three different forms of governance in EU politics, which will be introduced next and summarised in Table 1 (see also Bulmer et al. 2007).

Hierarchical governance operates in policies related directly to the single market, where the EU may exercise supranational power granted by the treaties and utilise coercive measures of policy transfer. These measures are based on supranational European law, but they are also based on the powers delegated to supranational institutions, such as the Commission's powers in relation to competition policy. A state must adopt such a policy as a member of an international organisation or as a condition of financial assistance from it. This form of governance involves a high level of institutionalisation. Hierarchical transfer is related to "negative" integration, which is the purest form of this

type of governance; the abolition of restrictive measures from the single market is an example of negative integration. A softer form of hierarchical governance comes from secondary legislation (Bulmer & Padgett 2004, 104–105, 108). For instance, a directive for professional qualifications was negotiated and adopted in the Council and the European Parliament and then transferred to member states. Member states are key players in this transfer process because they must implement this legally binding directive. The Commission and the European Court of Justice supervise this implementation and ensure that the policy's content is transferred, as decided at the EU level, and that the member state has really "learned" from the EU policy. Bulmer and Padgett argue that the use of coercive measures and high institutional density in hierarchical governance obliges member states to emulate EU models (p. 109).

A second form of governance is based on the common rules and norms agreed by member states and adopted by the EU, using the qualified majority vote (QMV). This form of governance is *negotiated* and is fairly common within the EU. Negotiation takes place in a variety of EU contexts, and agreements range from binding legal rules to informal understandings. According to Bulmer and Padgett, this form of governance has been referred to as a "negotiated order", often occurring in circumstances where policy models or ideas from one or more member states are incorporated into EU norms (104–106). Negotiation is characterised by bargaining and problem-solving. Bargaining is likely to produce competition between negotiators, and transfer outcomes are likely to correspond to the weaker forms of synthesis or influence, with the possibility of abortive transfer. Conversely, problem-solving may succeed in shaping negotiators' preferences, since it promotes information exchange amongst participants. By providing incentives to national actors, this opens them up to new policy models from other member states and creates the circumstances for emulative policy transfer. For this reason, Bulmer and Padgett argue that bargained negotiation under unanimity hinders the transfer process, as the outcomes are weaker than those received by problem-solving under QMV (p. 110).

A third model is based on *voluntary* cooperation and exchange in policy areas where member states retain sovereignty but coordinate policy through EU institutions. In fact, the interaction between national policy-makers is facilitated by the EU. Bulmer and Padgett call this form of transfer "facilitated unilateralism". Voluntary transfer takes place when a sovereign state unilaterally adopts policy *from* an external source. In this form of governance, transfer occurs horizontally through the diffusion of policies between member states. Facilitated unilateralism only employs soft or flexible rules and influence to persuade member states to redefine their policies. With a low level of institutionalisation, EU institutions act as enablers of cooperation, and non-governmental actors are largely absent. An example of facilitated unilateralism is the open method of coordination (OMC), which applies guidelines and benchmarks to influence decision-making in member states (104–106, 110).

In defining the different types of EU policy transfer, Bulmer and Padgett use the above-mentioned typology of *emulation*, *synthesis*, *influence* and *abortive* measures. They argue that hierarchical governance will generate the strongest form of policy transfer—that is, emulation and synthesis—citing the example of the European Monetary Union in making the interesting point that, within the EU, negotiation may produce emulation. Usually, however, member states' attempts to shape EU policies result in synthesis or mere influence. According to Bulmer and Padgett, facilitated unilateralism is confined to mutual influence between member states, or even to abortive transfer (p. 106). Table 1 provides examples of the institutional variables linked to possible transfer outcomes.

Table 1. Mode of governance, institutional variable and transfer outcomes
(adapted from Bulmer & Padgett 2004, 107)

Mode of Governance	Institutional variables	Range of likely transfer outcomes
Hierarchy	Authority/normative mandate accruing to EU institutions Density of rules Availability of sanctions/incentives	Emulation-Synthesis
Negotiation	Decision rules/Mode of negotiation: QMV + problem solving Unanimity + bargaining	Emulation-Synthesis Synthesis-Abortive
Facilitation	Institutionalization: Treaty incorporation of objectives Specificity of guidelines Quantifiable benchmarks Density of exchange networks	Influence-Abortive

Alternatives to policy transfer

Criticisms of policy transfer focus mainly on its importance—is it really a theory or just another form of policy-making, distinct from more conventional forms? There have also been questions regarding why lesson-drawing and policy transfer occur in place of other forms of policy-making. A third question that arises is how the policy transfer method affects policy-making, particularly when compared to other policy processes (James & Lodge 2003).

James and Lodge (2003) argue that "lesson-drawing" and "policy transfer" are difficult to distinguish from other forms of policy-making. They maintain that researchers interested in conceptual, non-domestic or across-time influences in policy-making should not restrict themselves to the policy transfer framework, as there are other available approaches. The authors give two examples, the first of which is the institutional approach, explaining how policy-making is mediated by institutions. Institutionalism offers an answer to the question of who has power in coercive action, and why some actors are recipients, and some are not. Institutional analysis also offers an explanation of how organisational structures affect learning processes. A second alternative

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or supplementary explanatory model to policy transfer, according to James and Lodge, is the power of ideas in policy-making. The spread of ideas often includes networks of actors involved in learning and transfer, and the nature of the network—whether it is an advocacy coalition or an epistemic community—is important.

James and Lodge argue that developing clearer measures of "transfer" might help to develop the approach. Effort should also be made to validate whether transfer has occurred and to assess, as needed, the extent of non-transfer. One must note that James and Lodge's criticism is from 2003 when the OMC had just started as a policy learning format within the EU. The authors refer to the process of Europeanisation and the OMC, but it was for the purpose of estimating its effects.

Policy transfer can be a useful explanatory tool, but other explanatory models can also be useful, such as international cooperation, policy networks, advocacy coalitions and epistemic communities, which also develop and promote various policies and ideas (also Dolowitz & Marsh 2000, 21; Radaelli 1999) and present another way to study the phenomenon at hand. According to Enders (2004, 374), Europeanised policy responses in HE may also be an example of mutual adjustment. Governments continue to adopt their own national policies, but in so doing, they reflect the policy choices of other governments or perceived European developments. Bulmer et al. (2007, 5) add that in earlier periods of policy analysis, it was typical to look at policy convergence since national policy-makers tended to rely on signals from the international system. By adopting similar solutions, there appeared to be convergence. This approach, however, focuses primarily on policy outcomes more than on the actors and methods of the policy process. The policy transfer approach also identifies the external catalysts for change, key actors, reasons behind as well as different steps in the process whereby policy from one jurisdiction is shifted to another.

The utility of policy transfer

As described in Moisio (2014), Bulmer and Padgett's (2004) typology of various forms of governance and policy transfer may serve to explain the policy transfer forms in EU policy cooperation in HE (see Table 2).

Bulmer and colleagues (2007, 9) note that governance by negotiation amounts to policy transfer by consent, centred on the Council of the EU. Common rules and norms are agreed by the member states and thereby adopted by the EU. In the process, member states have the opportunity to "upload" their policy preferences to the supranational level. The Commission is the agenda-setter, and it "controls the access points at which policy ideas enter the EU system" (p. 55), as member states also try to influence the ideas adopted by the Commission for transfer. "Self-interested Member States can be expected to compete to shape EU norms according to domestic preferences and practices, thereby reducing the subsequent adaptation pressures" (p. 20). In a soft law sector such as education, as noted above, adaptation pressure is minimal, which may in part explain why Finland was active in the HE modernisation talks, seeking to direct the discussion in the Council to favour the purposes of national policy formation.

Table 2. Governance of education and policy transfer
(adopted from Bulmer and Padgett 2004; Bulmer et al. 2007, 25)

Mode of Governance	Institutional variables	Range of likely transfer outcomes	*Instrument* in education policy
Negotiation	Decision rules/Mode of negotiation: **QMV + problem solving** **Unanimity + bargaining**	Emulation-Synthesis Synthesis-Abortive	Recommendation of the EYC Resolution/conclusion of the EYC
Facilitation	Institutionalization: Treaty incorporation of objectives **Specificity of guidelines** **Quantifiable benchmarks** **Density of exchange networks**	Influence-Abortive	ET 2010 OMC

"Under facilitation sovereignty remains vested in national arenas, but is overlaid by interaction between national policy-makers *facilitated* by the EU" (p. 23). Facilitation as a mode of governance offers only soft and flexible means to persuade member states to reassess their policy practices; the new form of cooperation, the OMC, was a good example of such means. The role of the EU is to work as an enabler of exchange and a mediator between member states (p. 24). A low level of institutionalisation means that policy transfer is restricted to influence and that there is a relatively high incidence of abortive measures (p. 24). According to the Finnish experts interviewed for the study, this was the case with OMC in HE policy.

Policy transfer can be a useful explanatory tool, but it is clear that no theory can explain all outcomes. Other explanatory models can also be useful, such as international cooperation, policy networks, advocacy coalitions and epistemic communities, which also develop and promote various policies and ideas (Dolowitz & Marsh 2000, 21; Radaelli 1999) and could be another way of studying the phenomenon at hand. According to Enders (2004, 374), Europeanised policy responses in HE may also be an example of mutual adjustment; governments continue to adopt their own national policies, but

in so doing, they reflect the policy choices of other governments or perceived European developments. It is possible to conclude, however, that policy transfer can be useful when explaining the outcomes of the four categories of description here. Moreover, the results suggest that the theoretical development could be further improved by introducing the concepts of *interaction* and/or *policy spin*.

The outcome space below shows how the significance of EU cooperation arises according to the understandings of Finnish HE policy experts, from category D (irrelevance and resistance) to category A (change)—that is, from entirely voluntary cooperation (OMC) to semi-coercive negotiated transfer (the Lisbon Strategy implementation). The categories are different and separate, but their contents are mutually supportive. For instance, the notion of a new kind of interdependence in category A supports the understanding of a variety of influences on a member state from EU cooperation. Category C, in describing fusion, supports category A in characterising change in EU-level cooperation: other forms of cooperation (OECD and Bologna) were seen to be important, but the relevance of EU cooperation increased at the turn of the century. The understandings in category D of the irrelevance of the OMC and soft law can also be supported by category C, where the interviewees observed that the EU is only one form of international cooperation. Clearly, although they can be introduced separately, the categories are also interconnected.

Figure 1 presents the completed outcome space for the four results categories. The preliminary outcome space improved with the scale of policy transfer (according to Bulmer et al. 2007). EU HE policy cooperation does not reach the point of entirely coercive transfer, moving from completely voluntary policy transfer to semi-coercive policy transfer when connected with overall EU goals, such as the Lisbon Strategy. To date, there has been no direct imposition of implementation of EU HE policy; thus, the outcome space stops at semi-coercive transfer. Here, the term "to date" is of relevance, as the new EU2020 strategy and its follow-up, with the European semester and new financial regulation, may change the situation in the near future. This may be a theme for further research.

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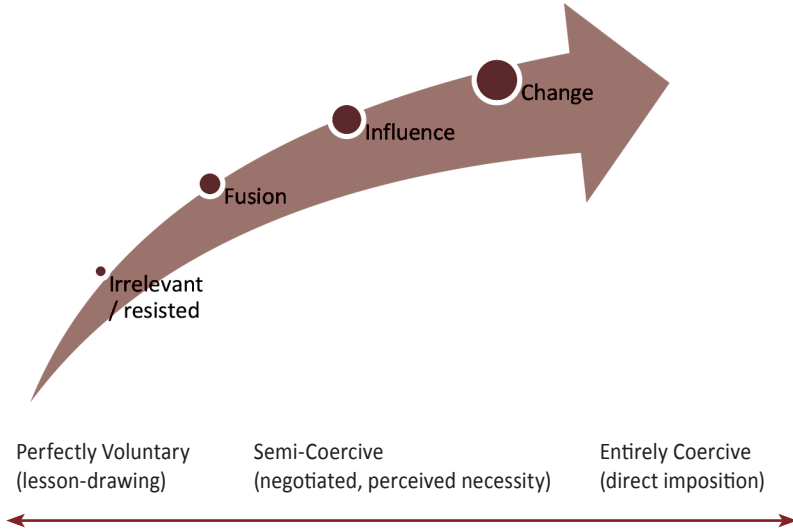
Figure 1. Outcome space: From voluntary to semi-coercive transfer

With reference to the scale of policy transfer (from Bulmer et al. 2007, 15), EU HE policy cooperation has changed from voluntary to semi-coercive policy transfer, but it has yet to become entirely coercive.

Conclusion

Effective policy analysis requires knowledge of how policy works. If reformers do not understand causation in public policy, they cannot assess whether or not their choices will work. A failure to understand decision-making procedures and the context within which they work often results in inappropriate choices when transforming methods of policy-making (John 1998, 10).

The purpose of this chapter was to describe how, through the transferability and functionality of transfer mechanisms, it is possible to study the effectiveness of policy cooperation. Policy transfer theory may help in understanding what is significant in EU cooperation and which methods of EU cooperation transfer

policies to the national level. In the post-2006 context of Finnish HE policy formation, there was a clear connection between EU-level and national-level decision-making. The theoretical framework offers an approach to combining the different findings and observations and can be used as an "overcoat" for the study, but theory alone cannot explain all possible results (Maxwell 1996, 33).

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A quadruple helix framework for university-led community innovation systems in Africa

Pascal Doh

Introduction

This chapter is an offshoot of a doctoral study supervised by Professor Holtta, which investigated the role of higher education in poverty reduction in Africa (Doh 2012). The study found the necessity of a university-led community innovation system (CIS), of a quadruple structure in complementing the lack and weaknesses of national university systems in most developing countries. Indeed, gone are the days when the university was an ivory tower, disconnected and distanced from the realities of its environment. Today, the university is undergoing a second revolution, which involves a third mission of economic development, including poverty reduction. This revolution is leading to a search for the most appropriate frameworks within which the university will perform and contribute most effectively. While the triple helix of the university, industry and government partnership, (Etzkowitz & Leydesdoff 1997) and the national innovation system (NIS) (Lundvall 1992; Lundvall et al. 2002) seem to be developing as the way to strengthen the role of universities in economic

development, developing and least-developed countries are generally lagging behind. Most African countries lack the appropriate frameworks to organise the systemic connection and role of their universities. Universities are often disconnected from their societies, local contexts and environments, either due to NIS that lack "systemness" (Doh 2012) or the sheer lack of frameworks. Whereas we will be portraying the NIS within which the triple helix operates as a starting point, this chapter presents the CIS as a framework that is likely to strengthen NIS in developing African countries because of its ability to more appropriately capture the local realities and innovations in these countries. This has been termed a university-led CIS of four helices.

The chapter is composed from a desk review of literature on different dimensions of national innovations and frameworks on how universities respond to the economic development needs of their immediate environment. The chapter draws analogies and most of its data from a qualitatively conducted study on the roles of the university in economic development and poverty reduction in Africa, specifically a case study of Cameroon (Doh 2012). The systemic perspective of this study was built on national innovation system theory and the institutional adaptation perspective on the concepts of the entrepreneurial university and the third mission as the means through which the university responds to such economic development commitments. The chapter (as per the study) is theory driven, whereby the theoretical and conceptual issues are important in propelling the analyses and conclusions (Marshall & Rossman 1999). In the chapter, two questions are raised to address the research gap in terms of the role of universities in NIS and of the absence of frameworks that appropriately address the weaknesses of Africa's innovation systems, such as: What is the university-led CIS, and (2) What factors and elements explain the relevance of the quadruple helix approach as a framework for CIS?

The community innovation system in the national innovation system

Muchie et al. (2011; 2003) summarise the CIS as a system's capacity to mobilise and use resources, organise knowledge and human capital training and deploy institutions, put in place incentives and regulations to carry out favourite experiments on activities and functions that are undertaken by citizens at the grassroots and local communities. In effect, this CIS is supposed to be there as a director of attention to local innovation. By the same token, the university-led CIS conveys how the university interacts in the CIS, how it is steering the processes leading to a responsive CIS and how it is interacting with grassroots community actors. This refers to how communities and their universities respond to the innovation challenges they face and how they are accommodated in their responses.

Doh (2012) situates the CIS as operating within a NIS, on a smaller geographical scale than the regional innovation system, to address the innovation needs and challenges of local communities. According to this perspective, the CIS is the means and framework reinforcing the effectiveness and responsiveness of the national and region innovation systems. Innovation is seen to refer to change, inventing something new as well as adding a new developmental stage to an existing product. An innovation system is, more or less, a system constituted of elements which interact in the production, diffusion and use of new and economically useful knowledge (Lundvall 1992).

Misleadingly, most of the literature on innovation systems has misconstrued these systems as science-based technological systems. These assumptions challenge perspectives on different innovations, especially those relating to developing countries, whose economies are mostly informal, with significant innovations taking place in grassroots communities. Innovation does not pertain only to "new to the world" innovation and could be the absorption of technology and competence. It could simply result from "doing, using and interacting-DUI" (see Chimnade et al. 2010, 3; Jensen, Johnson & Lorenz 2007). It is important to underscore the NIS scholars project as relevant for developing countries in the broad approach of the innovation system, rooted

in the activities of firms and the competences and capabilities of people, and not necessarily in terms of research and development (R&D), high tech and science-based industries (Lundvall et al. 2002). However this broad approach can be observed to have endless limits, with the elements and determinants of innovation difficult to define. The broad approach does not provide a place for the university. Doh (2012) postulates the triple helix as a starting point in conceiving a CIS since it is simpler and contains a leading role for universities. All the three actors in the triple helix are clearly defined. According to Doh (2012), university-led CIS are necessary to strengthen regional innovation systems. With the example of South Africa as an apparent leader in the innovation system approach to development in Africa (Netshiluvhi & Galada 2012), the regional innovation systems are still under development, that they are weak and that they seldom reflect a strong role for the university. The CIS concept, which is also taking shape in most of Africa, is still highly informal and does not enjoy national visibility (Netshiluvhi & Galada 2012). The emerging innovation systems do not articulate how the NIS is linked to communities at the local level. Finally, the sectoral innovation system approach (Brechi & Malerba 1997) has either been built on the formal science and technology-based approach of rich industrial countries, and not on the likes of social innovation in most developing countries.

The university-led community innovation system

It is possible to draw from the South African practices a geographical (regional) resource-driven approach, whereby the CIS is perceived from the perspective of a resource intensive economy in the region, which, if well nurtured, will lead to sustainable economic growth and social development (Netshiluvhi & Galada 2012). This dominant resource perspective is buttressed by the fact that very few of the regional innovation plans in South Africa have articulated the importance of the university. While the resource-based perspective cannot be completely ignored, Doh (2012) has maintained the importance of a knowledge-based approach, which is driven by the university. In fact, the figure

Elias Pekkola & Jussi Kivistö & Vuokko Kohtamäki & Yuzhuo Cai & Anu Lyytinen (Eds.)

depicting the CIS in Netshiluvhi and Galada (2012, 17) only identifies the government, parliament, ministries, provinces, councils, private sector, NGOs and community entrepreneurs as potential actors, without the university as a knowledge institution. Despite this weakness, what is common with the perspective adopted in Doh (2012) is the importance of involving all members of society in playing an active role in innovation, where especially the grassroots communities in the case of Africa are also responsible partners in the national innovation process, including all kinds of innovation, but especially social innovation. Social innovation has been defined by Netshiluvhi and Galada (2012) as any broad-based innovation (formal/informal, technological/non-technological) that is social, both in its ends and means in terms of existing and new ideas, products, services, processes and models that more effectively meet social needs on a sustainable basis. Within this social innovation perspective, the CIS can be targeted at solving and mitigating particular development challenges at the grassroots, such as food scarcity, social pathologies, tropical disease and land erosion.

Doh (2012, 192) has observed the innovation scholarship community as many analyse the role of the university in economic development as a fait accompli on the basis of macroeconomic theories, which seem to be built on the notion of the trickle-down effect of national innovation to the entire population, subsequently alleviating poverty. Such approaches fail to capture and systematically address the specific needs of socially inclusive and poverty-reducing innovations, including the distributional effects. Drawing on Altenburg (2009, 33–34), national innovation and economic policies may often be overly biased in addressing selective measures to deal with certain market failures and may end up with inappropriate conclusions. Doh (2012, 193) points out the phenomenon that poor developing countries operate on the premise that the poor in grassroots communities are only recipients of government planned activities because they are often considered ignorant, with nothing to offer. According to the Bertelsen and Muller (2003), paradoxically, it is the policymakers who are ignorant and usually know very little about these grassroots communities, for they are "highly knowledgeable and skilled and

certainly not ignorant as the public often thinks" (p. 23). The consequence of this unfortunate perception is that significant social and production potential in poor rural communities is often disregarded, with significant innovation and economic development potential abandoned. Scholars have argued on the importance of mainstreaming poor rural communities and their related technologies in the national innovations of Africa. This then forms the basis of CIS conceived here as a (formal) framework on how grassroots innovations, knowledge and technologies are harnessed and transformed into national innovations (see Muchie et al. 2003; Altenburg 2003, Nji 2004; Bertelsen & Muller 2003, 123).

A quadruple base of the community innovation system

Considering which schools of thought which of the schools of thought grants a conspicuous position to the university in national innovation (see 2.1), Doh (2012) projected a community university as an extra angle in the triple helix, whereby the first three angles which make up the triple helix—university, industry and government—relation are complemented by a fourth angle for the community, as follows:

(Doh 2012; 2017)

The above quadruple approach was adopted to construct a university-led CIS for several reasons. First, the other models and NIS scholarly community

(the case of Lundvall 1988; Nelson 1993) believe that it is either the firm or government play a leading role in national innovations (Sabato & Mackenzie 1982) but the triple helix centres on the leading role of universities. This is important to the community of higher education scholars, especially in developing countries where the university is a key knowledge institution. However, Doh (2012) goes further by suggesting that the triple helix is not sufficient for the development strategies of developing countries, in the sense that it focuses more on the university's role with "formally established industries", whereas industrial innovation and most of the economic activities in developing countries are highly informal (Gu 1999; Arocena & Sutz 1999). This weakness was demonstrated in Doh (2012), whereby universities in developing countries mostly go after formal and major industries. Doh (2012) highlights a gross lack of indicators such as budget lines, streams of income or memoranda of understanding in the universities in relation to activities with small and medium-sized enterprises (SMEs) or generally in the local communities, whereas the universities in developing country contexts are surrounded much more by SMEs. A quadruple helix involving a community angle with a leading role of universities was likely to be more appropriate for a CIS, especially in terms of social innovation. This requires an understanding of this adapted version of the triple helix to a quadruple helix that is similar but peculiar to those of other NIS scholars. Carayannis et al. (2009), for instance, have introduced the notion of "civil" society to the triple helix, which is related to the additional angle herein (the community). However the emphasis herein is on the local grassroots community and the role of the university as the main driver is peculiar.

Major actors of a university-led community innovation system

According to the preceding analysis, the community angle constituting a quadruple helix-based CIS becomes a full-blown sub "national" system with connections to the major actors such as the university, government, industry and the local community. Since this CIS is built from the triple helix, the first

three helices maintain roles similar to those of the triple helix, with connection to the local councils and communities:

Table 1. Expected roles of the major actors in the quadruple helix
(contextualised from the triple helix role analysis to a quadruple helix; Doh 2012, 126).

Actor	Role (s)
1. The Government	Connecting the university to the local communities, designs university community innovation support programmes
	Connecting the local communities and universities to the industries
	Funding the connections
	Facilitating access to the markets
	Coordinating and regulating the interactions between the three
2. The University	Knowledge, skills creator and supplier to industries and society
	A physical environment for research and teaching on local innovations
	Transmitting and disseminating the knowledge to industries
	Integrating the community knowledge into R&D and science and technology
	Providing incentives for academics to interact and cooperate with local communities and industries
	Academics constantly seek to relate to the knowledge and innovations from local communities
	Academics design the projects, apply for funding and link the innovations to industry
3. Community (Council)	With local councils officials coordinating structures for local community innovations
	Connecting the local community to universities and industry
	Where the grassroots population is active in proposing its knowledge and innovations to universities
	Where councils are capable of linking innovations to the global market
	Where councils substitute the government as the designer and executor of national innovation policies and funder and regulator at the local level
4. Industry	Cooperating with universities
	Providing resources to stimulate interaction between universities and the grassroots population
	Providing feedback to universities
	Linking interactions and the products of local innovation to the market, society and the global knowledge economy

A few observations ought to be made from the above four actors of the quadruple helix. Although by deductive reasoning, CIS can be understood as the smaller spatial and local component of national and regional innovation systems, during the analyses, we found that the national government remains the major and largest actor in designing university-local community innovation activities, governing and regulating them. This suggests that an innovative entrepreneurial local community should reflect and translate the innovative capacity of a nation, the NIS and vice versa. Consequently, there was no obvious reason to alter the position of the government in the hierarchy of the four actors. In fact, innovation processes that take place at the local community level do not necessarily operate in a vacuum at the basic special units of the nation. They could be the results of system-wide innovation policy, structures, cultures and incentives. A second observation draws on the fact that the role of the university as a major actor and a knowledge, research and training institution does not change as much as in the triple helix. What changes is the importance of the innovative and entrepreneurial academics at the basic units of the university, who are likely to be involved in the informal processes and contacts with the local communities. They are also important in the identification of community knowledge and the development and transformation of these knowledge and technologies to economically useful knowledge. Drawn on Doh (2012), the (local) community actor(s) is understood as comprising a variety of sub-actors such as individuals with local grassroots knowledge, micro businesses and SMEs, councils, civic organisations and other development agents in the local communities. These are community-based organisations and social entrepreneurs that are active in innovation as well as in promoting local innovations and linking them to university actors. There is the need to highlight, within this community perspective, the importance of local councils as formal structures that could be charged with connecting grassroots community innovations to universities, industries and even the market. The observation was that the role of the council was not dramatically different from that of the government since local councils as governors and regulators of local innovations could be carriers to national

innovation policies, especially within more decentralised and autonomous politico-geographical entities.

Local councils can also be strategic in outsourcing funding from government and industries. In fact, there was also the thought about designing the local community councils as a separate main actor, leading to a *quintuple helix*, since it could be clearly distinguished from community-based individuals and organisations as well as social entrepreneurs that are active in the innovation processes. However, the council was retained as part of the local community on the grounds of every innovation system having a defined spatial and geographical connotation. Although the industry actor was altered from the triple helix to become the fourth and last actor, it remains the last important point for the actualisation and materialisation of economically useful knowledge from the communities. The industry is an important funder and provider of feedback. It links final innovations and products to the market.

The proactive African university in its community innovation system

The entrepreneurial university pathway and its limits

In a rhetorical question as to which type of university is relevant in the innovation system, Doh (2012) affirms an "entrepreneurial university" (Clark 1998; 2004) as embracing the "third mission" of economic development (Etzkowitz & Zhou 2008, 629) as the best institutional framework. These have been maintained for the CIS, essentially because of the same reasons. The entrepreneurial university frameworks implicitly stimulate external collaboration between the university and its external economic development environment. The entrepreneurial university is, according to Etzkowitz and Zhou (2008, 629), "*a means to promote economic growth*". Economic growth nowadays, especially with regard to developing countries, requires greater interaction and collaboration from universities (Etzkowitz & Zhou 2008; Etzkowitz et al. 2008; Clark 1998; 2004). Zhou and Peng (2008, 638) perceive

the entrepreneurial university as the best tool for indigenous innovation because of its stronger service function and influence on the economy. However, in two other articles, Doh (2016a; 2016b) highlights several contextual limitations of the entrepreneurial university in terms of developing countries. These are expounded below.

The entrepreneurial university framework views entrepreneurship merely as an institutional characteristic, not taking into consideration that entrepreneurship could be stimulated from an upper layer of the university and that entrepreneurship does exist in micro units (Azele 2008). As a result of system-wide policy designs and funding, Clark (1998) does not situate the entrepreneurial university within a systemic framework. The entrepreneurial university, even entrepreneurship education at the basic unit, could be related to a particular funding scheme or policy designed beyond the basic unit and beyond the university, and vice versa, where policies are designed on the basis of the entrepreneurship education practices at the basic unit. Moreover, although the entrepreneurial university might have viewed partnerships and activities with industries as a characteristic, it focuses more on the extra second and third stream income and funding dimension and not on the economic role as a trigger of the entrepreneurial university, as Ezkowitz and Zhou (2008) postulate. One of the fundamental weaknesses of the entrepreneurial university framework, as observed by Doh (2012), is that most of its related studies have concentrated on research and technological and applied institutions in high income and highly industrial environments. Meanwhile, its conceptual glasses can be applicable to universities of all types, from those with an intensive research tradition to comprehensive ones in all contexts (Gibb, Haskins & Robertson 2009). Also, it can be observed that entrepreneurship education strategies in many European universities have been developed separately from the institutional aspect. Doh (2016a; 2016b) argues for the necessity of a multilevel framework that connects the two dimensions. Lastly, the entrepreneurial university framework does not pay sufficient attention to scientist-led entrepreneurship. University professors are very important actors in the informal networking that grants business to the university and are more strategic in the CIS, in the

developing countries connecting the university to the grassroots population and in local innovations.

Entrepreneurial professors in community innovation

It is important to present a separate account of entrepreneurial professors in this subsection because the employment of the entrepreneurial university concept in the case study of higher education and poverty reduction strategies (Doh (2012) generally showed a weak institutional support system (e.g. no discretionary funding, poor understanding of entrepreneurship, etc.). However, despite the generally weak institutional framework in response to the entrepreneurial university pathways, some departments and professors continue to stand conspicuously and tall in interactions with an effective university-led CIS.

A principle example of this interaction in the case study of Cameroon, which, like most of Africa, is in the medical, pharmaceutical, chemical and life science fields. Respondent Number 16 (R16) (Doh 2012) of the University of Buea, Cameroon (Doh 12), was involved in pharmacological validation towards drug discovery. This entails meeting charlatan traditional doctors (most likely less educated) in order to acquire knowledge of certain medicinal plants which the doctor in the grassroot community claims cure certain diseases. R16 (the principal investigator) then conducts scientific research in the lab to validate whether the traditional medicinal plants actually cure what the (charlatan) traditional doctors claim that they cure, then examines prospects for drug discovery from the contents of the plants. In a well-structured NIS, which encompasses a CIS with appropriate incentives and an inclusive intellectual property regime, it could be possible for the traditional doctor to be integrated as part of the drug discovery. The cycle of the CIS is completed once the results of the potentials of the medicinal plants are affirmed, with patents and drugs put on the market, and the charlatan doctor, most often from a rural area, being part of the proceeds. Respondent R12, from the Physics Department, develops prototypes that can be used to electrify rural areas (R12). The respondent

believes that the micro hydroelectricity and wind turbine generation of electricity can help reduce cost and extend and improve the generative capacity in Cameroon. R18 does research and advocacy on gender, women and land ownership and believes that for women to contribute to poverty reduction, they must own factors of production in the society, one of which is land. The respondent argued that within the current dispensation, the customary laws have tended to disfavour women and that this is a major handicap to poverty reduction strategies. Other university departments in the case study were seen to provide continuing education, adult and lifelong learning to improve the analytic and innovative capacities of the grassroots population.

Drawback to the university in the innovation system

The first challenge—which was observed to undermine the role of the university in most of the national or community innovation systems in most African countries, for example, the case country Cameroon—is the absence of a NIS. Most innovation systems in Africa, like most developing countries, are marred by weak linkages and low levels of interaction between actors, elements and institutions. These weaknesses manifest in the form of lack of funding and lack of internal or interface structures to connect the university to the society and the market. For instance, the principal investigator (R16) above (Doh 2012) revealed that once he had done the pharmacological validation and obtained the results, it became very difficult, if not impossible, to go from there to develop products that could be taken to the market. The respondent observed that more capital was needed to carry out the formulation and registration of the product but that the "national environment just ignores" them at this point. This is exemplified below:

Our activities are handicapped by the fact that there is no structure, means and prospects to take us from scientific results to product development. We could have more direct relevance and impact on poverty with products in the markets if (1) we start manufacturing the drugs; (2) if those drugs get to be used; (3) if you start working with a particular medicinal plant and you can

demonstrate scientifically from the lab that the plant can generate income, you are directly impacting on poverty. Most often, our work does not go out of the laboratory, "nobody takes us out of the laboratory". (R16)

R12 (Doh 2012), who was producing prototypes of electrification for the community, believed that if the university researchers have the proper government or systems (institutional/financial) to support the country, then its citizens would be able to benefit more directly from what they were doing. Rural electrification, for instance, is one of the main developmental challenges of Cameroon (R12). The potentials of drug discovery for health and the national economy cannot be over-emphasised. Given a strong innovation system with interconnectedness and linkages, the results of electricity and drug discovery of the two respondents above would be taken over by the related ministerial departments in Cameroon for exploitation, sponsorship and commercialisation and dissemination. Respondent R12 argued that if there were sufficient funding and systemic support, their activities could be scaled up to help the national electricity corporation (SONEL) to produce power plants of a higher capacity instead of using smaller ones for rural areas

From the above example, it can be argued that the NIS, among others, can enhance the university's contribution in the CIS and, thus, poverty. Doh (2016) notes other weaknesses affecting the university in the NIS and CIS, such as the lack of a national strategic plan, insignificant systems culture for research and poor understanding by the population and politicians of the activities of universities. The low R&D potential of local firms and the country at large can also affect the performance of the university in the CIS. The absence of key facilitators to link universities' potential and results to potential users is a significant impediment. The low degree of networking and weak educational and analytic capacity of the grassroots population affect universities' interaction and connection with the local community; both academic and grassroots communities are likely to "speak different languages" and have different world views.

Conclusion

This chapter has demonstrated and presented elements of the aloofness of universities in developing countries to their grassroot communities as a huge limitation, both in the roles of the universities and in the economic development processes. This aloofness to the local community is a major weakness for developing countries' universities, such as those in Africa, because more than 70% of the countries' potential and activities are in the informal sector. A significant amount of the riches are in indigenous and grassroots knowledge and technology. The chapter has proposed the importance of a university-led community innovation built on the basis of a quadruple helix framework, composed of a coordinated relationship between the university, government, local community and industries. This implies a broadened innovation system to capture the rural community and articulate both the commercial and non-commercial and social aspects of innovation. Rather than focusing mostly in terms of the "rich" forms of innovations and becoming globally competitive, it is necessary to see innovation from the perspective of being locally adapted, embedded and socially inclusive. Within this quadruple helix approach, the university plays a lead role in scanning the environment and identifying convertible economically useful knowledge in its grassroots community. The university converts tacit and explicit knowledge from the local communities into innovation, then is passes this on to industry and products in the market. The government is, above all, coordinating, funding and linking the other three actors. Local councils become a very important constituted and organised body, which can substitute the government, and vice versa, as the coordinator, regulator and funder of innovation processes. It is important to note that the conceptualisation finds equally important the formal (established) industry as final end points, relevant for bringing the products of local innovation to market. Studies on formal policy approaches and frameworks that link the university to local community innovations, especially in Africa will yield very interesting results in terms of economic development and poverty reduction.

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The concept of the entrepreneurial university for analysing the organisational transformation of higher education institutions

Anu Lyytinen

Introduction

The term *entrepreneurial* has not traditionally been used in the context of European universities. Instead, the goals and values of business enterprises have been seen to exist in strong contradiction to the academic and cultural values of universities (e.g. Shattock 2010). Moreover, the special characteristics of higher education institutions (HEIs), universities in particular, have been illustrated by identifying how they differ from the peculiarities of business enterprises (Birnbaum 1988). Universities have traditionally been characterised as specific loosely-coupled professional organisations, which have decentralised internal authority and structures, and where central organisational policies, leadership and control have been weaker compared to business organisations (Birnbaum 1988; Bleiklie, Enders & Lepori 2017).

However, during the last few decades, the higher education sector has grown and diversified, and its social and economic significance has increased (e.g. Bleiklie, Enders & Lepori 2013). The policies of the European Union (EU)

and national governments emphasise the knowledge production and diffusion of universities as an engine of social and economic development (e.g. Shattock 2008). The EU's renewed agenda for higher education further notes that a wide cultural change is needed to support HEIs to become entrepreneurial actors (European Commission 2017). To support the active role of universities in society, national governments have aimed to reform universities to make them more efficient, responsive and business-like organisations in several European countries (e.g. Bleiklie et al. 2013; 2017; Chanphirun & van der Sijde 2014; Pinheiro & Stensaker 2013).

Since the 1990s, the transformation of universities and other HEIs in our knowledge-based society has been increasingly examined in higher education research. The conceptualisation of an entrepreneurial university has become one of the analytical tools of researchers to illustrate and analyse the transformation of HEIs in the current knowledge-based society (e.g. Chanphirun & van der Sijde 2014; Clark 1998, 2004; Etzkowitz 1983; Etzkowitz et al. 2008; Marginson & Considine 2000; Nelles & Vorley 2010).

The chapter aims to analyse how the concept of the entrepreneurial university describes the current transformation of universities. The chapter begins with a short historical overview of the entrepreneurial university concept: when and why the concept was introduced in higher education studies. It then introduces and illustrates different approaches to study the entrepreneurial transformation of universities, focusing especially on Burton Clark's (1998) conception of the entrepreneurial university. Finally, the chapter engages in a discussion and summary of the kinds of challenges and possibilities regarding the application of the concept to the higher education setting, especially in the context of European universities.

Foundations of the concept of the entrepreneurial university

Kerr (1963) coined the concept of *multiversity* to illustrate a vision of the future of universities, which consists of a diversified set of activities and is responsive to the different needs of society (see also Etzkowitz 2001). Although Kerr

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did not speak about entrepreneurialism or entrepreneurial universities, his idea regarding multiversity has widely been considered as a predecessor of the concept of the entrepreneurial university (see Etzkowitz 2001; Nelles & Vorley 2010).

Since the 1970s, academic research on the role of universities in innovation processes and as institutional actors in innovation systems has grown rapidly. This was related to the development of higher education and science policies, which pushed and encouraged HEIs to establish links with business and industry for efficient knowledge production at universities for use in several industrialised countries (Mowery & Sampat 2005). Etzkowitz (1983) was the first to use the concept of the entrepreneurial university in his article "Entrepreneurial Scientists and Entrepreneurial Universities in American Academic Science". He illustrated the entrepreneurial transformation of universities and science, primarily from economic and commercial viewpoints by analysing the efforts of university scientists in seeking and raising external funding, establishing scientific enterprises and in the commercial utilisation of academic science (Nelles & Vorley 2010).

Entrepreneurial orientation has been characteristic of American universities, in particular. However, changes in the environment and higher education reforms in the late 1980s and 1990s provided an impulse and backdrop for the idea of the entrepreneurial university in European countries (Rhoades 2017). Large-scale reforms have been carried out in several European countries to strengthen the entrepreneurial role of HEIs in socio-economic development. In practice, this has meant an extension of HEI research and teaching tasks by incorporating economic and social development as a university mission (the so-called third mission), e.g. in the form of marketable products and new knowledge-based companies (Etzkowitz et al. 2000; Nelles & Vorley 2010). This transition is called the "entrepreneurial turn" or "second academic revolution" in higher education and science studies; it has also offered a basis for developing the conceptual frames of entrepreneurial universities (Etzkowitz et al. 2000; 2008; Nelles & Vorley 2010). The scale of the changes has been compared to the "first academic revolution", which dates back to the

turn of 19th and 20th centuries, when research was integrated into the mission of universities along with teaching (Etzkowitz 2001).

Different perspectives on studying the entrepreneurial university transformation

Since the late 1990s, higher education researchers have made numerous attempts to understand and explain how higher education institutions change as part of the knowledge-based society (Miettinen & Tuunainen 2006, 16; Mowery & Sampat 2005). The triple helix relationship among universities, industry and government (Etzkowitz & Leydesdorff 1997), the entrepreneurial and enterprise university models (e.g. Clark 1998, 2004; Marginson & Considine 2000), the concept of academic capitalism (Slaughter & Leslie 1997; Slaughter & Rhoades 2004) as well as the Mode 1—Mode 2 thesis of changing knowledge production (Gibbons et al. 1994) are the best known and most influential attempts at redefining and describing the entrepreneurial turn of HEIs in the current knowledge-based society (see also Miettinen & Tuunainen 2006).

These concepts and models emphasise different approaches and foci to entrepreneurial transformation in the university context. The triple helix model—introduced by Etzkowitz and Leydesdorff (1997) in their book *Universities and the Global Knowledge Economy: A Triple Helix of University-Industry-Government Relations*—sees interactions among universities, industry and government as a seedbed for new innovations. The task of universities is to produce new knowledge, while industry is in charge of production and government of contractual relationships. However, the assumption of the triple helix model is that there has been transformation both internally within each of the helices as well as in the relationship among them. In the knowledge-based society, the role of universities has expanded and strengthened as entrepreneurs and promoters of innovation, alongside industry and government. A similar transformation is ongoing in industry and the government sector. The helixes influence each other, and in the next stage of

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the triple helix relationship, new kinds of trilateral networks and organisations will be created based on the interaction among the helixes (Etzkowitz 2003; Etzkowitz et al. 2008). Since the late 1990s, the triple helix model has been further developed and widely applied in the study of trilateral relationships in different geographical contexts and branches of science and business (e.g. Benner & Sandström 2000; Etzkowitz et al. 2008; Kaukonen & Nieminen 1999).

Slaughter and Leslie (1997) analysed the entrepreneurial university from the viewpoint of changes in academic labour in public universities in Australia, Canada, the United Kingdom and the United States in their well-known book *Politics, Policies and the Entrepreneurial University and Academic Capitalism*. The main concept of their study was *academic capitalism*, which they defined as the market and market-like behaviour of universities and academic staff in securing external funding. Market-like behaviour refers to competition for external funding, whereas market behaviour entails the for-profit activity of universities, such as patenting, spin-off companies or sales of services. The main arguments of Slaughter and Leslie were that academic work is changing in response to global markets and declining public funding and that academic capitalism was a consequence of that development. The changes vary among disciplines: disciplines that operate in closest proximity to markets benefit from academic capitalism more than others do, for example, through research funding directed to techno-science fields. This can lead to internal differentiation within universities (Slaughter & Leslie 1997; Slaughter & Rhoades 2004). Slaughter and Rhoades (2004) continued with the examination of academic capitalism with the later publication of *Academic Capitalism and the New Economy*, with the concept subsequently gaining wide application in the study of forms and varieties of academic capitalism in different countries.

Gibbons et al. (1994) analysed the entrepreneurial transformation of universities from the viewpoint of science and research in their well-known publication *The New Production of Knowledge: the Dynamics of Science and Research in Contemporary Societies*. Their main thesis was that the modes of knowledge production have changed: alongside traditional disciplinary-based

basic research, the significance of transdisciplinary and applied research has grown. Knowledge is increasingly produced in interaction among the actors representing different disciplines, including actors outside the academic community and in organisationally diversified contexts aiming at solving topical problems of society. The quality and impact of research is also being evaluated—in addition to being based on academic criteria and peer review—on the basis of the social impact of research.

Clark's (1998) study *Creating Entrepreneurial Universities: Organizational Pathways of Transformation* analysed entrepreneurial universities from the viewpoint of management and organisation. The next section of the chapter focuses on analysing the entrepreneurial university concept from the viewpoint of Clark's study. Clark's study has been chosen because it analyses the management and organisation of universities—universities as entrepreneurial organisations. In addition, his study has been widely considered as a pioneer on entrepreneurial universities (Shattock 2008). It has also had implications for university development in Europe (Rhoades 2017; Shattock 2008).

Burton Clark's study on entrepreneurial universities

Creating Entrepreneurial Universities: Organizational Pathways of Transformation focused on European universities[1] which were intentionally aimed at becoming more entrepreneurial (Clark 1998). By means of five case studies, Clark identified how universities had changed their organisation and practices to become more entrepreneurial. He was especially interested in whether there were common pathways to transformation.

Clark emphasised entrepreneurship as a characteristic of the social system, the higher education institution and its units, rather than as a characteristic of an individual academic, which had been the traditional conception of entrepreneurship. Accordingly, he saw collective entrepreneurial action and initiatives as the core impulse of transformation (Clark 1998; Shattock 2010).

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[1] University of Warwick, University of Twente, University of Strathclyde, University of Chalmers and University of Joensuu.

Second, Clark noted that he did not see entrepreneurialism as hard business-oriented and profit-seeking activity, but instead, he defined an entrepreneurial university as an institution that actively and wilfully builds its organisation, seeks a special organisational identity, innovates and takes risks in terms of how it carries out its activities. Thus, his conception of the entrepreneurial university was akin to that of being innovative. Clark did not see academic and collegial values as subordinate to managerial values, but he emphasised that an essential aspect is to seek balance between collegial and managerial values and goals.

Clark's approach was inductive, proceeding from practice to theory. As a result of the case studies, which were based on interviews, observations and analyses of documentary data, he summarised five organisational elements that he saw as important in transforming universities towards more entrepreneurial ways of action. These elements are *the strengthened steering core*, *the expanded developmental periphery*, *the diversified funding base*, *the stimulated academic heartland* and *the integrated entrepreneurial culture* (Clark 1998).

The strengthened steering core is essential because universities continuously encounter pressures to become quicker, more flexible and responsive in their reactions. According to Clark (1998), *the strengthened steering core* refers to an HEI's efforts to strengthen and systematise its managerial capacities. Although the strengthened steering core may assume different forms, it should include both central managerial and academic groups in order to reconcile managerial and traditional academic values. Moreover, it is administratively strong at all levels of organisation (Clark 1998; 2004).

The entrepreneurial university also actively crosses the traditional boundaries of the organisation to create linkages and collaboration with external stakeholders. The aim of this boundary-spanning is, for example, to mediate between academic departments and the external environment to promote new competencies, acquire information or generate income. Boundary-spanning typically takes the forms of administrative offices, new academic units and programmes, interdisciplinary research centres, teaching outreach, which tasks can include, e.g. supply of teaching and research services, knowledge and technology transfer, university-industry collaboration,

fundraising and alumni relations. Clark (1994; 2004) calls this *the expanded developmental periphery*.

When the government's core funding decreases, *diversifying funding base* becomes important in enhancing the self-regulative capacities of HEIs and creating opportunities for new initiatives. Clark divides this into second and third stream funding sources. Second stream funding sources refer to funding from governmental research councils (competitive research funding), while third stream funding means all other governmental funding sources, private organised sources as well as university-generated income, such as endowments, alumni fundraising and tuition fees. According to Clark, third stream funding sources represent real financial diversification (Clark 1998; 2004).

To initiate change, the ultimate question is how the academic units responsible for teaching and research and formed around disciplines or fields of education are oriented to change. *Academic heartlands* are places where academic values are most strongly rooted and where change often occurs last. Change requires new forms of knowledge production (applied research and development work) and diversification of funding sources to meet new social demands (Clark 1998; 2004).

As the integrative concept, Clark uses the *integrated entrepreneurial culture*, meaning that entrepreneurial universities also develop a work culture that embraces and is oriented to change. Transformation can start from an idea to a set of beliefs, which can later become university-wide culture (Clark 1998).

In his later publication, *Sustaining Change in Universities: Continuities in Case Studies and Concepts*, Clark (2004) expanded the case studies to countries and universities in Africa, Latin America, Australia and North America and further defined the transformation elements. The focus of the study was to analyse how elements of transformation become elements of sustainability. Clark summarised the dynamics of sustainability in three principles. According to him, organisational transformation elements become elements of sustainability when they combine into a basic organisational character. Second, the university keeps in motion by means of incremental, experimental

and gradual adjustment to changing demands and opportunities. Third, ambitious collegial will is essential for sustaining change. Clark's conclusion was that the capacity to carry on changing is essential for the entrepreneurial university (Clark 2004, 90–93).

Discussion and conclusion

This sub-chapter discusses and sums up how the concept and transformation elements of the entrepreneurial university (Clark 1998) illustrate the organisational transformation of European universities, what kinds of challenges and possibilities exist in applying the entrepreneurial university concept and its transformation elements to the university context.

It is important to note that the idea and concept of an entrepreneurial university originated from the United States, where the role of markets has traditionally been strong, the control of the state over universities low and where universities are more autonomous, which have, for their part, forced universities to become more entrepreneurial and responsive to the socio-economic environment (Ben-David 1968; Mowery & Sampat 2005). The emergence of entrepreneurial universities in the United States has also been a bottom-up phenomenon (Etzkowitz 2003). Conversely, European universities have a long tradition as public organisations; they have a public mission to offer services that produce benefits to the wider society (Jongbloed, Enders & Salerno 2008), values which are opposite to those of business enterprises, e.g. profit maximisation, commercialisation and the adoption of market principles (e.g. Shattock 2010). The role of the state has also been strong in steering European universities, and universities have been dependent on state funding. Moreover, Europe did not have the same entrepreneurial cultural traditions as those of the United States (Jongbloed et al. 2008).

However, Clark's book was published as the situation was gradually starting to change: the direct regulative role of the state was diminishing, and the autonomy of universities was increasing (Jongbloed et al. 2008; Shattock 2010). This changing relationship between the state and HEIs also directed the

focus of attention to the question of how universities as organisations respond to the new challenges (Rhoades 2017). According to Shattock (2010), Clark's book has had an impact, especially on the way in which EU and European universities ponder the appropriate balance between institutional autonomy and state control: the European Commission quickly adopted the ideas of the entrepreneurial university in its policy documents (e.g. CEC 2003; CEC 2005; CEC 2006). Similarly, the Organisation for Economic Co-operation and Development (OECD) devoted one conference to Clark's book in 2000 (Rhoades 2017). Thereafter, Clark's ideas have been applied in several ways, not least as a reference point in higher education reforms and change (Rhoades 2017).

During recent decades, several European countries have reformed their higher education systems in a way that emphasises entrepreneurial ways of action. According to Mora and Vieira (2009), the main change trends in university governance in European countries include increased institutional autonomy and diminished state regulation, the consequences of which have been, e.g. strengthened university leadership, greater accountability and more detailed quality assurance procedures. At the same time, the role of markets and co-operation with different stakeholders has grown. Universities have widely incorporated a third mission alongside their teaching and research tasks, and these university-society linkages are of a more institutional nature (Geuna & Muscio 2009). It can be said that the current funding instruments, such as strategic research programmes and government analysis, assessment and research activities in the Finnish context, also stimulate academics to conduct applied research and pay attention to the social impact of research. All of these change trends share commonalities with Clark's organisational transformation dimensions.

Clark's book gained a substantial amount of attention when it was published, and it has become a world renown and widely cited publication, which has also stimulated further studies by higher education researchers. Researchers have applied the entrepreneurial university concept to describe the different forms of transformation in the higher education sector (Rhoades

2017). Organisational transformation elements of the entrepreneurial university have been applied and further developed to studying and evaluating entrepreneurship and the entrepreneurial transformation of universities and universities of applied sciences in different countries (e.g. Shattock 2009; Gjerding et al. 2006; Marginson & Considine 2000; Lyytinen 2011).

Clark's organisational transformation elements of the entrepreneurial university can be criticised for being descriptive and overly simplified, having been derived from inductive analyses of a few cases. They also lack conceptual profundity and integration to theoretical traditions. However, Clark's main contribution is not theoretical, but practical. The strength of the book is that it has awakened discussion on university development at the European level and has impacted the policy and practices of HEIs (see also Shattock 2010). Another special contribution of Clark's approach was that he did not define and analyse the entrepreneurial university only from economic viewpoints, but also from academic standpoints, taking different dimensions of the university organisation into consideration, and by emphasising balance between managerial and academic values and goals, which fit European universities well. Second, Clark's new contribution was also the organisational viewpoint: he analysed entrepreneurialism as a characteristic of the organisation and social system rather than as a characteristic of an individual academic or discipline (Shattock 2010).

It can be said that Clark's idea of the entrepreneurial university is still topical in Europe, although the book was published 20 years ago. Rhoades (2017) has even argued that the impact of Clark's book has been stronger in Europe than in the United States. According to Shattock (2010), Clark's book has further legitimised the concept of the entrepreneurial in the university context (Shattock 2010). However, although the transformation elements do present challenges, which have been faced by European universities in one way or another, and describe well some of the main development trends in university governance, they cannot be straightforwardly and uncritically transferred to different country contexts and HEIs. Instead, each country is to find entrepreneurial ways of action that are appropriate to its HEI system and society.

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III
Scholarly Traditions Applied to
Understand Universities and Academic Work

The sociology of professions and the study of the academic profession

Elias Pekkola, Teresa Carvalho, Taru Siekkinen & Jan-Erik Johansson

Introduction

In this chapter, we will discuss the development of the literature on the sociology of professions. The sociology of professions is a wide research area. Sometimes called the theory of professions, it has a well-known and universally accepted corpus of literature that is often referenced by the scholarly community. Because professions are defined in their context and by their corresponding researchers, the literature and its interpretations have varied over time. In addition, the overall developments of the social sciences and related fields are well observable in the research on professions.

The remainder of this chapter is organised as follows. Section 2 will first provide a brief overview of the development of the research tradition on professions in the context of the development of the social sciences. In Section 3, we will briefly introduce the academic profession, as defined by profession theorists and higher education scholars. Section 4 will discuss the current research on academic professions. In conclusion, Section 4 will present

tentative research problems that could be approached using the framework of the theory of professions as well as the limitations of this approach.

The development of the theory of professions

The roots of studies on professions can be traced back to the late 19th and early 20th centuries. Like most fields of sociology, the role and impact of classic writers such as Marx, Weber and Durkheim have been crucial in the development of the sociology of professions. However, the sociology of professions as a distinctive field of study is said to be born in the latter half of the 20th century.

Many attempts have been made to summarise the development of the theory of professions (Adams 2015; Collins 1990; Dubar & Tripier 1998; Evetts 2003). Depending on the author, the development is divided into 3–5 stages. For simplicity, we will divide the theory's development in two phases: foundations and contemporary research. From the foundational literature, we distinguish two waves: functional and interactional research. We will also categorise contemporary research into systemic and organisational wawes. By dividing the development into these two phases and four waves, we lose certain variations in the literature, but at the same time, we increase the clarity of the typology. Thus, we hope to provide understandable information for readers unfamiliar with the research area.

In most literature reviews, the development of the sociology of professions is described as an independent trajectory. However, we consider that the sociology of professions was not developed in a vacuum. Consequently, we believe that it might ease readers' understanding of how the phases of the study of professions emerged, when it it's described in relation to the more generic developments of the social sciences. Thus, we will contextualise the development by providing insights into the development in other fields of the study of administration, management and work.

Foundations: Professions and power

The initial development of the foundations of the study of professions largely focused on the United States, particularly North America. The first classical studies on professions discussed their functions and traits in the context of occupations. The second major development, the interactionist tradition, shifted the emphasis to interactions between professions and their clientele, particularly in terms of analyses of power.

The functionalist research tradition is widely based on the seminal work of Parsons (1954) on the functions of societies. He discusses the functions of professions in contrast to bureaucracy and businesses or markets. In his studies, he emphasises the role of motivation and the values of professional work. In addition, many trait theoretical studies on professions were conducted during the 1940s and 1960s, which resemble management studies on manager traits. The idea was simply to distinguish professional work from other work and professionals from other employees. The following are some of the commonly cited characteristics of professions (see Goode 1957; Millersson 1964; Parsons 1954):

1) Shared ethical code, values and moral
2) Altruistic mission
3) Esoteric knowledge and intellectual supremacy
4) Intrinsic definition of qualifications, quality of work and new members
5) Organised union

Nevertheless, critiques by subsequent generations of professions researchers in the functionalist tradition laid the foundation and raised fundamental questions that are still relevant to researchers today. Implicitly, all professions researchers face the demarcation problem and distinguish professions from other occupations, although they criticise the simple and seemingly objective definition as positivistic.

In addition to the functionalist approach, interactional research is generally included in the group of classical theories in the sociology of professions. Researchers of the interactionist approach began with a critical perspective

of the functionalist analysis and methodological tradition of the Chicago School. The School emphasised the use of participant observations and life stories to analyse the professional practices of members of a professional group. By analysing these practices, the sociological problem in professions analyses shifted to strategies used by professionals to be recognised and socially legitimated in terms of possessing a monopoly over a specific task in the division of labour.

More practically, the interactionist wave can be called power and monopoly approaches. It is a part of the more generic changes in social science research throughout the 1960s and 1970s. The social sciences were politicised during those decades, particularly regarding the role of Marxist theory. The emphasis in professions research shifted from functions and traits to the work of professions, in general, and power relations between professionals and their clientele, in particular. Professions were seen in the context of the state machinery, representing the capitalist regime and socialising citizens. The question regarding the relationship among professions, knowledge and power has also been approached from several leftist (critical) angles (i.e. Grams, Althusser and, later, Hirsch). Although loud and popular, the Marxist approach was not the only framework used to analyse interactions between professionals and other parts of society. Another major school of thought at the time was the Weberian approach or the often-called neo-Weberian approach. It can also be termed the interactionist approach, regardless of its different intellectual roots and normative assumptions. Neo-Weberian researchers were interested in the power of professions and analysed society using Weberian concepts such as social closure, authority, monopoly, legitimacy and dominance. Weberian analyses emphasise market regulations by professions using authority, knowledge and regulations. Further, Foucauldian analyses of professions have often been mentioned under the interactionist label, although the golden age of this strand of research does not fit the chronological sequence of the tradition in its entirety.

Three authors were key in the development of research on the power of professions: Johnson (1972), Larson (1977) and Freidson (1974). Johnson

(1972) reflected on the power relations between professionals and their clients. Larson (1977), adopting a historical perspective relating to professional projects that professions have constructed with the development of capitalist societies or economies, sustained the notions of monopoly and social closure as fundamental in this relationship. Finally, Freidson (1974) stated that a profession could be interpreted as a form of organisation of the labour market on the basis of three fundamental elements that sustain its power: autonomy by controlling the nature of the work and how it is done; monopoly of an area of specialised knowledge, which sustains the autonomy, and credentialism (a form that assumes a gatekeeping role), which allows access to the profession only to those who possess occupational or institutional credentials.

Contemporary: Systems and organisations

During the period 1950–1970, with help from the classics of Western sociology, professions researchers laid a strong foundation for the study of professions and their influence in society. The next shift in studies occurred in the 1980s, when researchers' interest turned towards the system of professions and their organisations.

The third major research tradition can be called systemic. This tradition stems from systems theory, in particular, research on open systems and contingencies in the organisational environment. The main idea underpinning systems theoretic analyses is that society is a systemic apparatus in which all systems and subsystems are somehow connected, depending on the level of analysis. Organisations, or professions, cannot be analysed separately from other organisations. Analyses of a closed system in a stable environment were considered inadequate, and researchers began emphasising turbulent environments, openness of systems (i.e. contingencies and resources) and dynamic relations among various actors and professional groups.

In the sociology of professions, Abbot's (1988) study is particularly noteworthy, in which he describes the dynamics between different professions and their jurisdictions. In addition, he discusses how areas of expertise

(jurisdictions) are gained and maintained in ever-changing environments (technological, social and cultural) and that different professional groups have the authority and legitimacy to provide solutions to the same social problems across different time periods. He defines alcoholism (and the profession providing treatment for it) as changing from sin (priest) to criminal activity (lawyer), social problem (social worker) and, finally, illness (medical doctor). He further argues that there are no predefined areas of knowledge and professions and that they are dynamic and interrelated.

Markets and organisations are becoming increasingly important in the context of changing professions (Brint 1994). Professions are "both a type of organization and a type of status category" (Brint 1994, 23), and this aspect leads to emphases on the historical perspective; social organisation and status category both change and develop by nature. Evetts (2009; 2011) describes how changes in professionalism have been influenced by new public management: from occupational professionalism that emphasises, for instance, collegial authority, trust and autonomy to organisational professionalism that focuses on, for example, rational-legal forms of authority, hierarchical structures and managerialism. However, and interestingly, when organisational principles, strategies and methods affect occupational identities, structures and practices, the questions have to do with which aspects change and which ones remain to be constructed and controlled by professionals.

Thus, the fourth step in research can be called the organisational or managerial study of professions. Recent reviews of the sociological literature (Adams 2015; Brock & Saks 2015; Saks 2016) reveal that research attention has shifted to the various challenges faced by professional groups within organisations. This is a dominant trend in both the sociology and management literature on the theoretical perspectives of neo-Weberianism and neo-institutionalism (Brock & Saks 2015). Classical theorists defined tensions between professions, and their employer organisation (Freidson 2001), consequently evolving with neo-liberal and managerial tendencies. Further, a blurring of boundaries between professions and organisations and the growth of professional–managerial hybrids have been acknowledged. Hybridism

has been increasingly used to overcome the notion of professionalism and managerialism as opposite dimensions or distinct institutional logics (Bevort & Suddaby 2016; Carvalho 2014; Carvalho & Santiago 2015a; Noordegraaf 2015; Noordegraaf et al. 2015; Olakivi & Niska 2017). Simultaneous changes in how knowledge is produced and disseminated, along with higher education institutions losing their monopoly, question the relevance of scientific knowledge and credentialism in sustaining professional projects (Carvalho & Santiago 2016a).

Scholars and practitioners have been concerned about the disregard of professional principles by the spread of managerial influences. However, debates have moved beyond confrontation between the two principles of professionalism and managerialism to building more consensus-based ideas regarding how both principles could benefit each other in daily practices (Noordegraaf 2015). This new type of professionalism is a hybrid of professional and managerial principles. According to Noordegraaf (2015, 6, 12), hybrid professionalism is about professionals treating cases within a well-managed organisational context; it is "meaningfully managed professional work". Noordegraaf also describes the "beyond hybridity" model, which describes situations in which professionals consider organising to be an important task, that is, professionals deal with contradictions between professional and managerial principles, wherein organising becomes part of the job (Noordegraaf 2015).

There have been two key developments in the hybridisation of organisations. First, increased development in inter-organisational interactions has resulted in hybrid contracting arrangements between different organisations. Such arrangements require new ways of assessing risk and accountability, which raises the need for managerial skills to deal with assessing such risks and new accountability structures (Miller & Kurunmäki 2008). The second development can be observed between public and private organisations: the mixing of public policy goals and profit motives within public–private partnerships and state-owned organisations as well as privatisation, commissioning and contracting out arrangements, signified as part of the new public management

(NPM) doctrine, that demand increased awareness of business management practices among professional ranks (Johanson & Vakkuri 2017). In certain cases, strong professions have shown willingness to incorporate managerial knowledge into their professional practices, such as medical doctors in Finland compared to their counterparts in the United Kingdom (Kurunmäki et al. 2008). Theoretically, therefore, developments in hybridisation might erode the organisational control of professionals (see Noordegraaf 2007).

A fundamental change within the confines of a single organisation has been the adaptation of team-based organisations comprising multi-professional workgroups that combine the expertise of numerous occupational groups. Together with other developments in flexible specialisation and a decrease in the levels of hierarchy, new organisational forms work against occupational segregation between professional groups. Consequently, team-based organisation not only emphasises equality between types of expertise within the work group, but also decreases the possibilities of resorting to collegial decision-making within a single professional group (Janhonen & Johanson 2011). Overstating the influence of new organisational practices on the control of professional work is unnecessary, as professional status is protected by extra-organisational guarantees in educational requirements that are stipulated in legislation and protected by the professional group itself. The fundamental change brought about by the new organisational order is that professional groups are less able to insulate themselves from interactions with, and the influence of, other occupational groups that do not allow professional closure.

It is premature to define the current school of thought in the sociology of professions. However, there have been at least two attempts to define recent research. Some researchers argue that Western societies have faced so many fundamental changes that the concept of profession is hollowing out, for which changes in the labour and educational structures in Western societies are mainly responsible. In many Western societies, higher education has been massified for several decades, becoming a universal phenomenon. It also means that poorly paid jobs have become knowledge intensive. Currently, there are several "precarious" occupations that are independent of time or

space, often requiring a highly skilled workforce and individual commitment, and that have become part of the identity of workers. The old professions are becoming more middle-class and female dominated and losing their traditional foundations, that has been based on elite and male domination. Some professional occupations are still more elite than others, but their power is defined though methods that are different from those adopted by traditional professionals. Conversely, for similar reasons, some researchers suggest that the study of professions has made a full loop and that researchers are beginning to question what professionals are and how they can be distinguished from other groups. Table 1 summarises the development of the sociology of professions and its implications for research.

Table 1. Development of research into professions

Phase	Research objective	Questions	Phenomena
Functional 1940–1960	Societal functions of professions Traits of professions	What is a profession? How are professions defined?	Altruist missions
Interactional 1960–1980	Power of professions Professions and the objective of work	What do professions do in relation to other groups? How do they use power?	Relation between professions and clients
Systemic 1980–1990	System of professions Professionalisation	How do professions interact? How do professions evolve, develop and maintain?	Relations and demarcation of professions
Organisational 1990–2010	Professionals managed internally and by organisations Changing occupational professionalism, organisational professionalism, hybrid professionalism	How do managerial principles change occupational professionalism? How can professionals be well managed inside organisations?	Relationship and tensions between occupational and managerial principles, values and practices Professionals working in organisations.
2010– to date	Fundamental changes in Western societies, production and the role of knowledge; managerialism causing the hollowing out of professionalism Professions–organisations relations, beyond hybridity Closing the circle and going back to basics		

Other conceptual dimensions and definitions

The chronological typology of theory development is a one-dimensional approach to the sociology of professions. There are other important dimensions that one should be aware of when reading the literature on professions. These include contextual (geographical or cultural), historical (chronological) and conceptual (substantive) dimensions.

Contextual dimension

As is well known, context matters in the study of governance, power, work and societies. In the study of public administration, the most important contextual dichotomy can be made between continental and Anglo-American societies and administrative (legal) culture and traditions. In this tradition, even basic terms such as the state, public, policy and law are variously understood. While reading and applying the literature, these differences must be carefully considered, and this holds true for the study of professions.

In Anglo-American (mainstream) studies on professions, the assumption of a strong civil society is crucial. The role of professions in Anglo-American societies is often considered a counterbalancing force between the state and citizens acting in the markets. Professions are considered actors who define themselves and their working environment. In the continental tradition, professions are often strictly connected to the state and professionals, who are often civil servants. Here, profession is often defined in the context of the public sector. As Bertilsson (1990) explains, the role of markets differs between these two traditions:

In the one (liberal) case, we speak of professions regulating the markets and, in turn, being regulated by the markets; and in the other (welfare) case, [we] speak of professions regulating the law and in turn, being regulated by the law. In the first case, an important device to allocate social goods is by means of the supply and demand by markets and in the other case, by means of law. One could speak of these two mechanisms as monetization and juridification, respectively.

In the past few decades, we have been able to observe the convergence of political systems and the hegemony of certain (OECD-led) neoliberal policies. However, the NPM critique often offers a rather simplistic picture of the resemblance of the challenges, problems and tendencies facing public administrations in different countries. The variation in administrative cultures remains wide, and the differences are significant. Nevertheless, in the global tendencies of developing professional services, the differences are still deeply rooted in the culture and practices of the professions. Thus, the Anglo–American literature cannot be applied directly to the continental reality.

Historical dimension

Professions can be approached from historical perspectives, as practiced by many scholars as they sought to derive their own typologies of professions. Elliot probably provided the most famous approach in the 1970s. According to Elliot, professions can be divided into three distinctive groups. The first group is the so-called "status" or "traditional professions" that are linked directly to societal power (e.g. priests and officers and, more recently, lawyers and medical doctors). This group of professions has evolved as a process of transforming feudal estates under the control of a central power, with help from university education. The second group of "new" professions are the so-called "occupational professions" that have emerged to meet societal needs, such as social workers and accountants. The third group are educational professions that are part of the occupational system and, at the same time, an integral part of the educational system which lays the foundation for the occupational system (e.g. professors and teachers).

Brante (2010) further developed this historical analysis of professions. Accordingly, professions can be classified into six groups on the basis of the context of state and governance development. His typology is described in Table 2, which shows that while the state is developing, it needs new types of professions to implement its policies and to control new areas of reality. It also provides an opportunity to consider the development of the academic

profession alongside this more generic development, as well as the role of universities in the professional game and in government.

Table 2. Development of professions
(adapted from Brante 2010)

	Pragmatic organisation	Professional prototype	Essence (command of...)
Nation state (1550 →)	State bureaucracy, army	State servant (e.g. military and civil)	Social order and cultural identity
Aesthetic state (1750→)	Cultural institutions	Architect, artist	Symbolic expressions
Industrial state (1850 →)	Factory	Engineer	Non-social environment
Welfare state (1935 →)	People-processing (service) organisations	Physician, teacher	Normality (social environment)
Neoliberal state (1985→)	Stock market or private company	Consultant	Investments
International state or supranational (1990 →)	Supranational organisation	Supranational servant	Social order and cultural identity

Conceptual dimension

In the study of professions, two concepts are of utmost importance: professionalism and professionalisation (Evetts 2013). The study of professionalism addresses professionals' values, norms, discourses and identities. The study of professionalisation examines the societal role of professions. Research on professionalisation has three dimensions:

1) Power relations between professionals and clients
2) Relationships between professions and other occupational groups
3) Relationships between professions, government and other societal groups.

The academic profession as a profession

The study of the academic profession has been both attached to and disconnected from that of professions. There are two main approaches to describing the

development of the study of the academic profession. First, we approach it from the viewpoint of the literature on the sociology of professions, and second, we describe the applications of the sociology of professions and related studies on the academic profession in the context of higher education (higher education studies). We will first provide a brief overview of the literature on the academic profession in the sociology of professions. Next, and more importantly, we will describe the study of the academic profession on the basis of the tradition of higher education studies.

The academic profession is considered a "basic" profession alongside status and traditional professions. It is considered a component of educational professions because its members are part of the educational system. However, professors differ from school teachers because they also educate teachers and conduct research. Furthermore, drawing on the Humboldtian tradition, academics are expected to perform the dual role of producers (researchers) and disseminators (teachers) of knowledge. It appears that the classical theories in the sociology of professions tend to focus more on the first role, which can be attributed to the relevance of science and scientific knowledge to modern societies.

Irrespective of the consensus that the academic profession (professors) is a profession, there are two main reasons that the study of the academic profession, especially its theoretical development, remains underdeveloped (Pekkola 2014). First, the basic problem is that classical texts are often empirically interested in other professions such as that of medical doctors. This creates a situation in which the academic profession has a differentiated role, that is, it is described as a supporting profession that connects professionals to the system of knowledge. In practice, this means that most established professions writers recognise the academic profession but do not study it. Goode (1969) offers one of the best illustrations of the topic: "Precisely because of the temptation to analyse the academics in length is strong, I shall stifle and simply locate the problem" (p. 306).

Second is the lack of critical studies on the academic profession. In fact, professors themselves are unwilling to criticise their own profession and are

expected to control scientific knowledge. This possibly explain why literature users of coercive and degenerating power in the academic world are generally managers, politicians and markets and not professors. Given these limitations in theory development, the study of the academic profession remains variously uninstitutionalised.

There are at least three approaches to the study of the academic profession in the context of higher education studies. The first and most narrow way of delimiting the study of the academic profession is to focus on studies published in forums of higher education studies, which explicitly refer to the theory of professions. This would entail only a minor difference (publication outlet) between studies on the academic profession in higher education studies and the tradition of the sociology of professions. The second and broader method of defining the study of the academic profession is to consider all studies that explicitly define profession, professionalisation or professionalism as their study object, regardless of the theoretical underpinnings. The third, universal approach is to include all studies on academics, academic work and career and division of academic labour under the umbrella of academic profession (see Table 3).

Table 3. Approaches to the study of the academic profession

Approach	Type of studies
Sociology of professions	Academics as object of the study of professions
Narrow	Theory of professions applied to the field of higher education studies
Broad	Themes of the sociology of professions studied using concepts of higher education studies
Universal	Academic profession as an object of study of higher education

However, none of these definitions is established or commonly used. Thus, when reading the higher education literature on the academic profession, one can expect to encounter everything from the serious sociology of professions (in its multiple variations and rich traditions) to descriptive studies on the well-being or attitude of university teachers and researchers. Unfortunately,

the latter is more often the case. In the next section, we will adopt the broad, though not universal, approach to describe the study of the academic profession in the field of higher education. We begin with basic questions on different theory traditions (see Table 4).

Table 4. Development of research into the academic profession

Tradition	Questions for higher education researchers
Functional	What is the academic profession?
	How can the academic profession be defined?
Interactional	What is the role of the academic profession for clients and 'lower' professional groups?
	How does the academic profession use power?
Systemic	How does the academic profession interact?
	How has the academic profession evolved, developed and maintained?
Organisational	Is the academic profession losing its occupational values and becoming more organisational?
	How is the academic profession balancing between its occupational and organisational values and demands?
	Is the academic profession becoming more organisational, and what are the other occupational values?

Foundational

As previously mentioned, the question relating to the academic profession is a tricky one. The academic profession is closely connected to other professions (and sometimes, it is almost impossible to separate). It has a disintegrated knowledge base (disciplinary fragmentation), and it is career-vice fragmented (professors/others) and mission-vice fragmented (teacher/researcher). Clark (1987a) described this basic problem well in a classic text of the study of the academic profession(s). His book on the academic profession in the United States, *Small Worlds—Different Worlds* concludes with the slogan "the one and the many", which suggests a possibility for the common in the fragmented world of academicians. Becher (1987b), the other founding father of higher education studies, describes the same challenge using the following metaphor:

> *The occupants of a space shuttle approaching earth will see, from a few hundred miles, a uniform and undifferentiated sphere. As the distance reduces, land masses can be distinguished from oceans, cloudless from cloud-covered areas. Nearing touchdown, the visibility of the whole planet gives place to a localized but much more detailed view, which may well include coastlines and mountain ranges, forests and lakes, and later, rivers, roads, railway tracks, houses, gardens, trees, and traffic. After landing, the perspective is still more bounded and more detailed—the kind of outlook we ordinarily see as we go about our everyday business. At each successive stage, there is a trade-off between comprehensiveness and specificity. To see the whole is to see it in breadth, but without access to the particular; to see the part is to see it in depth, but without the general overview.*

Adopting a functionalist perspective, Ben-David (1972) maintains that academics could be considered as part of a profession since they have features in common with other professional groups: (i) a higher education degree as a prerequisite to access the profession, (ii) a monopoly in the performance of certain roles in the division of labour, (iii) control over new admissions into the profession and (iv) a professional body controlling its members' conduct. However, he sees discretionary freedom as more relevant. The guarantee of intellectual autonomy was assumed to be essential for the academic profession, since it was also considered necessary to promote science development.

In fact, the reluctance of certain higher education researchers in associating academics with a profession is related to the notion of autonomy, or academic freedom, and the community of scientists. For instance, while Neave (2009; 2015; Neave & Roades 1987) prefers the term "academic estate", Kogan, Moses and El-Khawas (1994) refer to it as an "academic community".

The academic profession is internally heterogeneous and comprises three dimensions of diversity (Teichler 2010). The first is the academic discipline, that is, every discipline has its own culture (e.g. Becher 1989; Välimaa 1998). Second, there are career stages, whereby an academic career is formed through different stages, starting from a PhD student and ending with the position of a professor; the distinctions between the stages are significant and are
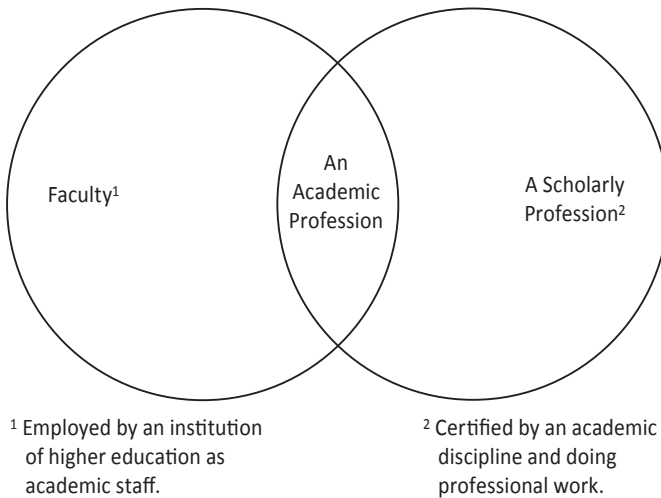
exemplified e.g. in different recruitment practices and privileges they enjoy (e.g. Siekkinen, Pekkola & Kivistö 2016). Finally, there is the institutional type: in research-oriented universities, academics must record significant achievements, specifically in research. Despite these differences, the academic profession also shares common characteristics (Höhle & Teichler 2013), for example, the prolonged process of learning and maturation; senior researchers who have accumulated years of work experience after attaining a PhD degree are considered full members of the academic profession. Further, academic careers are highly selective; in every upper career stage, there are fewer positions available. In addition, members of the academic profession enjoy a high level of autonomy.

However, the point of departure for analyses of the academic profession is simply the existence of a profession independent (above) of disciplines that have the following qualities: shared ethical codes, values and morals, altruistic missions, esoteric knowledge, intellectual supremacy, intrinsic definition of qualifications, quality of work and new members and organised unions. Often, the starting point that exemplifies this unity is Perkin's (1969) idea that the academic profession is key in educating all other professions, implying that education is the main function of the academic profession, which has been the case historically. Nevertheless, there are also classical texts such as Weber's (1919) *Science as Vocation*. In the scholarly work, the point of reference in arguments regarding unity is often in relation to epistemological similarity.

Research ethics, followed by academic freedom, is a value that can be considered common to the academic profession. Often, in the context of the academic profession, Merton's (1973) norms (i.e. universalism, communism, disinterestedness and organised scepticism), formulated in his famous book *The Sociology of Science*, are cited as one of the foundations of the academic profession. The third argument regarding the unity of the profession is to refer to the more organisational or institutional values of academic work. Here, Clark (1983) is often referenced when discussing the basic values and common foundation of academic professions. According to Clark, the basic values are social justice, competence, liberty and loyalty. They are seen as the

arguments (or even assumptions or axioms) that are most important to the study of higher education and academic work as a distinctive field and, thus, are rarely questioned.

A well-known definition of academic profession emerged in the 1970s. It is based on the placement of the academic profession somewhere between the scholarly (researchers) profession and faculty (teachers) within the same organisation (university) (Light 1974). Figure 1 is a simplified diagram of the two sides of the academic profession. A member of the profession must possess both scientific qualifications and an institutional position, which are often, but not always, connected to the university's function of teaching. Generic definitions of the academic profession are rare and, thus, Light's definition remains most-often cited.

Faculty[1]

An Academic Profession

A Scholarly Profession[2]

[1] Employed by an institution of higher education as academic staff.

[2] Certified by an academic discipline and doing professional work.

Figure 1. Two sides of the academic profession
(Light 1974)

However, there are limited precise definitions and descriptions of traits and functions amidst a significant number of studies describing the characteristics of the academic profession. Two most important quantitative studies are

those by Carnegie on the academic profession (Boyer, Altbach & Whitelaw 1994) and its successor on changing academic professions (Kogan & Teichler 2007). These two international surveys have produced a voluminous amount of publications: the academic profession survey alone has produced several hundred peer-reviewed articles (Cummings & Teichler 2015). However, theory development has been rather modest.

The study of the academic profession as a group that uses power that delimits or disempowers other groups has been limited. In higher education studies, one is unlikely to find many book chapters and articles critically analysing the use of power by academicians over students or other academicians. However, research on the power (and its misuse) of professors in the context of PhD students, researchers and lecturers are not common. One of the first examples of such a study is the "bible" of higher education studies: Clarks' (1983) *The Higher Education System*. In this volume, Clark describes the arbitrary rule by superiors over the subordinates in the context of professional (professorial) power in universities and professors' collegial authority as a form of Weberian traditional authority that is based on beliefs and not on rational and legal reasoning.

More recently, studies adopting this interactional approach have adopted the perspective of transformation in higher education institutions, particularly accounting for the processes of massification and competition in higher education systems. The increasing presence of "non-traditional" students in post-graduate courses and, more specifically, PhD programmes has propelled researchers to question and analyse supervision experience and, in particular, the relevance of power relations between students and supervisors (Apple 2002; Bartlett & Mercer 2000; Chiang 2009; Delamont, Parry & Atkinson 1998; Guerin & Green 2015; Morley, Leonard & David 2002), the specific nature of supervision work (Halse & Malfroy 2010) and its impact on academics' identity (Crossouard & Pryor 2008; Halse 2011). There is also an almost parallel literature on inequality within the professoriate. Here, studies on gender equality assume particular relevance, although other dimensions, such

as race, class and sexuality, are also considered important (for a comprehensive review, see Muzzin & Martimianakis 2016).

Contemporary

The systemic approach is more common in the study of the academic profession and has been especially popular in research on university—society relations and the role of universities. In these studies, the profession and professional organisation (university) are sometimes confused. In higher education studies, the academic profession often equals the entire university or academic staff, rendering "interactionist" research rather difficult. Presumably, the best-known tradition under this approach is the study of academic capitalism. Slaughter and Leslie (1997) have studied academic work and communities in the context of resource dependency theory, arguing that the academic profession relies not only on state bureaucracy, but also on state-led substitute markets. In these markets, the profession competes more openly with other professions (e.g. consultants, think tanks and industries) than before.

To this effect, Peters, Marginson and Murphy's (2009) book *Creative Economy* reflects on the manner in which technological changes in society promote transformations in the roles of academics, thus raising questions on the effects of changes in how knowledge is produced and disseminated in contemporary societies. Some authors assume the apparent substitution of mode-1 with mode-2 knowledge as a process of de-professionalisation (Welch 1998), even if others have a more positive perspective (Marginson 2009), noting that academics can use creativity to maintain autonomy and academic freedom.

The dominant presence of accountability and quality assurance processes, which demand professional know-how from managers, also questions power relations between academic and non-academic staff (Marini, Videira & Carvalho 2016; Gornitzka & Larsen, 2004), the changing boundaries between the two groups (Akkerman & Bakker 2011; Farndale & Hope-Hailey 2009; Shelley 2010; Verbaan & Cox 2014; Whitchurch 2008) and how professional

identity is being transformed within this process (Graham 2013; Nelson & Irwin 2014; Whitchurch & Gordon 2010).

In adopting a boarder perspective, other studies have compared changes under new public management and managerialism in at least two sub-sectors, with higher education and health being more common areas of analysis (Carvalho & Bruckmann 2014; Carvalho & Santiago 2016b; Lounsbury, Pinheiro, Ramirez, Vrangbæk & Byrkjeflot 2016). Within the same trend, changes in the academic profession have been compared with those in the health professions (Carvalho & Santiago 2015b).

Other dimensions in academic profession studies

The development of the academic profession is often described in the context of the development of universities, indicating that the academic profession is largely an organisational profession. While it is difficult to describe the global development of the academic profession, it is futile to detail national developments for international readers. Nevertheless, we will provide a short description of the developments on the basis of Brante's (2010) classification (see Table 5).

The academic profession was conceived before the time of nation states. Universities were developed in the 12th century in the city-states of Italy and in loose European empires at the time. The two best-known models of early universities were the Bologna and Paris models; one was run by students, while the other was professor-centred. Bologna, a well-known and the oldest student-run university, was transferred to a city-state and master-driven model in the 13th century, where professors became salaried professionals. This meant that as early as the 13th century, universities in southern and northern Europe as well as in England were profession-centred and closely connected to the state (and churches). However, these developments occurred before the modern state came into being (which was crucial for the development of the academic profession). It integrated the profession with the societal elite and power structure, and universities were developed as professional bureaucracies.

Because of its dual role, the academic profession has been part of the development of the state and other professions, while continuing to independently develop and expand. In fact, it has served as an important instrument for the state to control the content and legitimisation of the knowledge needed to build the state, economy and society. The group has been controlling degrees, which play a key role in the receipt of societal positions of power. Table 5 describes the development of the academic profession and universities in the context of state development.

Table 5. Development of the academic profession
(adapted from Brante 2010)

	Development of universities	Role of academic profession
Pre-state (1100→)	Establishment of student- and professor-run universities	Educating estates, transferring societal power from estates to state and knowledge from church to state
Nation state (1550 →)	Establishment of national universities	
Aesthetic state (1750→)	Establishment of art schools	Socialising national symbols, controlling identity
Industrial state (1850 →)	Establishment of technical institutions and business schools	Educating national industrialists, building national wealth
Welfare state (1935 →)	Mushrooming of social science-oriented institutions	Educating welfare professionals and planners, creating standard supporting productivity
Neoliberal state (1985→)	New role of universities (third mission)	Educating all, building national competitiveness
International state or supranational (1990 →)	Establishment of European universities, chairs and centres	Educating the European elite, transferring national powers to European level

The development described above is more inclined towards the continental context than Anglo-American society. As previously mentioned, the differences between these two traditions ought to be acknowledged in the

study of professions. These differences are evident in the role of the academic profession and its relation to the state, the organisation of universities and the idea of a university as a whole. Table 6 presents some of the major differences relevant to the study of the academic profession.

Table 6. Differences in university traditions

	Anglo-American	**Continental**
Universities	Charity	Public agencies
Professors	Free professionals	Civil servants
Organisation and hierarchy	Collegial Department	Bureaucracy Chair
Idea	Newman (liberal)	Humboldt (professional)
Connection to markets	Tight	Symbolic
Relation to the state	Funding	Legislation and funding

Conclusions

The study of the academic profession has long adopted the concepts of the sociology of professions. However, while this research has been descriptive, it lacks theoretical rigour. A key challenge in the study of the academic profession in relation to the concepts of the theory of professions remains fundamental: researchers study their own profession. This has several implicit and explicit impacts:

1) Research is unlikely to question the societal role and importance (**altruistic mission**) of the academic profession
2) Studies are unlikely to objectively examine academics in relation to university organisations, students and other professions (**power**).

Other challenges include the role of the academic profession in the theory of professions as a legitimate scientific branch of occupational professions. This makes it difficult to study the academic profession in comparison to an independent profession. Many researchers have questioned whether the

academic profession is a profession or a group of professions. However, from a historical perspective, it is fairly clear that the academic profession plays an important role in transferring societal power from estates and families to the state and privileged occupational groups.

The application of the theory of professions remains underdeveloped, despite the large number of publications related to the academic profession in recent years. In particular, critical research on the societal role of academicians and their use of power remains untouched. Thus, we encourage researchers, especially those placed outside of academia, to study the academic profession and work.

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Information on efficiency as an aspect of self-regulation in university departments

Timo Näppilä

Introduction

Birnbaum (1988) defines the academic organisation and its leadership within the context of a cybernetic institution. Birnbaum's theoretical model was based on a dynamic and nonlinear open system and first-order cybernetic regulatory processes. The main idea of cybernetic regulation is based on constructing dynamic loops in which the element of a system affects the environment, which in turn affects the system. This interactive dynamic between a system and its environment may lead to an amplifying or stabilising process. The process begins when some change in the external or internal environment leads to an organisational response that alters the value of some variable. If that variable is being monitored by some formal or informal group (a sensing unit), and if that change of value moves it beyond acceptable limits, the group will attempt to influence the administration (or some other controlling unit) to change the organisation's response until the variable moves back into an acceptable range.

In the Finnish context, Hölttä (see Hölttä 1995; Hölttä & Nuotio 1995; Hölttä & Karjalainen 1997) has also studied both Birnbaum's cybernetic institutional management model and self-regulation. According to Hölttä and

Karjalainen (1997), the system of the flexible workload of university teachers was based on the idea of creating stabilising, self-correcting cybernetic control loops into the management system. The most important issue in creating self-regulating control loops is that this information – which is usually most confidential and sensitive to individuals – is fed back to academic departments and heads of departments, with no involvement from administrators in its interpretation.

My doctoral dissertation (Näppilä 2012) examined the theoretical information on efficiency as part of researcher's and teacher's self-regulation in university departments. Successful self-regulation requires information on efficiency, in other words, the optimal use of resources. This kind of information is information for researchers and teachers, not for their managers or administrators. It is also important to know what skills, values, technologies and knowledge individual researchers and teachers will undertake in their work. I utilised new theoretical assumptions from systems theories (autopoiesis, self-organisation) and second-order cybernetics. My contribution to the existing theory was that individual self-regulation with information on efficiency was taken into account. This theoretical modification will help in re-thinking the ideas of self-regulation at universities.

The cybernetics of academic organisation and leadership

According to Birnbaum (1988), open systems are dynamic and nonlinear. System parts are themselves systems; they constantly change as they interact with themselves and with the environment, and the system evolves over time. Both people and colleges exist as part of an open system. They interact with other elements of those systems and the environment in which they are imbedded. Structural (rules, regulations, structures) and social (interaction of individuals in groups) controls are organisational feedback loops which are sensitive to selected factors in the environment. Negative feedback loops provide information that something is wrong. They allow systems to sense

when some important variable is outside its acceptable limits (that is, outside the organisation's constraint set) and attempt to correct it.

A thermostat is an example of a self-correcting, cybernetic control system with a feedback loop. It turns the furnace on when the temperature of the environment falls below the pre-set limit and turns it off when the temperature returns to the desired level. This keeps the temperature within an acceptable range. The cybernetic process is depicted as a causal loop. The process begins when some change in the external or internal environment leads to an organisational response that alters the value of some variable. If that variable is being monitored by some formal or informal group (a sensing unit), and that change of value moves it beyond acceptable limits, the group will attempt to influence the administration (or some other controlling unit) to change the organisation's response until the variable moves back into an acceptable range (Birnbaum 1988).

According to Birnbaum (1988), in a cybernetic system, an organisation's subsystems respond to the limited number of inputs (students, money and knowledge) to monitor their operation and make corrections and adjustments as necessary; organisational responses are not based on measuring or improving their output (educated students, knowledge and skilled labour). This is possible when systems create feedback loops that tell them when thing are going wrong. Systems receive several and different kinds of inputs from the environment, transforming them in some way, and then return them to the environment. Outputs do not disappear (as they do in closed systems) but return to the environment, where they may again become inputs (alumni).

The main idea behind cybernetic regulation is based on constructing dynamic loops in which the element of a system affects the environment, which in turn affects the system. This interactive dynamic between a system and its environment may lead to an amplifying or stabilising process (Birnbaum 1988, 47–51). Cybernetic systems can function effectively only if environmental disturbances are sensed and negative feedback is then generated by organisational subunits that monitor these data (1988, 197). If the increase in the cause variable increases the value of the affected variable, which in turn

increases the value of the original cause variable, the process is called positive feedback. The target of university management in this system setting is the opposite: to introduce self-correcting or stabilising processes. If one element or sub-system is unbalanced by an external impulse, the built-in mechanisms of the system stabilise it and balance returns between the system elements and the sub-system. This is called negative feedback (1988, 181–183).

The open systems view suggests that we should always organise with the environment in mind (see Morgan 1998, 42). The organisation is typically viewed as an open system in constant interaction with its environment, transforming inputs into outputs as a means of creating the conditions necessary for survival. Changes in the environment are viewed as presenting challenges, to which the organisation must respond (1998, 215). Thus, to self-regulate, learning systems must be able to sense, monitor and scan significant aspects of their environment, relate this information to the operating norms that guide system behaviour, detect significant deviations from these norms and initiate corrective action when discrepancies are detected (1998, 77). Regarding the cybernetics of observed systems we may consider to be first-order cybernetics, the observer enters the system by stipulating the system's purpose. We may call this a "first-order stipulation" (von Foerster 1979, 2).

Creating self-regulating control loops and information systems

The University of Joensuu initiated a management reform in the late 1980s as a response to the new national higher education steering policy and reform of the public sector. The university was also driven to find its competitive advantage as a result of the increased competition for funding within the education sector as well as to attract motivated students and excellent personnel. The initial solution was characterised by a radical decentralisation of decision-making and responsibility to academic departments. Real executive power was also transferred to individual academic leaders, especially to the rector and heads of departments from the collegial councils, which were seen to be too slow and inefficient in the new environment (see Hölttä & Karjalainen 1997).

According to Hölttä and Karjalainen (1997), the system of flexible workload of university teachers was based on the idea of creating stabilising, self-correcting cybernetic control loops into the management system and building black boxes of hierarchical order at different levels of the organisation, while respecting disciplinary values and diversity of leadership cultures in an academic organisation. The most important issue in creating self-regulating control loops is that this information—which is usually most confidential and sensitive to individuals—is fed back to academic departments and heads of departments, with no involvement from administrators in its interpretation.

The confidentiality of information production has been seen as essential because costs and outcomes can be assessed only within the department. Sometimes, high unit costs are deliberate and are a consequence of planning. For example, a teacher may be developing a new course and prepares supplementary material for students, or the study module in basic education may be offered only to a small number of students who might later require a certain specialisation at the post-graduate level. No expertise exists outside the department to interpret this detailed cost and output information (Hölttä & Karjalainen 1997).

Information system

The system produces information about the allocation of labour costs, even individual teachers and different institutional functions, and—within education—different study modules. This information is available in the system, which is aggregated at each organisational level, but the logic of hierarchical black boxes is followed. The most detailed information concerning individuals is available at the level of basic units only, and aggregated information on the whole department and teacher categories—professors, associate professors, lecturers, etc.—is produced for the use of deans of faculties and the rector of the university (Hölttä & Karjalainen 1997, 232–233).

The integrated structure of the information systems allows a combination of output information with cost information. For each study module or

course, the number of students who passed, as well as credits performed, can be combined with the corresponding cost information, and the system calculates the unit costs for any desired level of aggregation—from a single module and individual to the level of the educational function and the university. This information is aimed especially at encouraging self-evaluation within departments as well as the assessment of costs and outcomes so as to support the next planning cycle within the departments (Hölttä & Karjalainen 1997, 232–233).

Policy barriers to individual learning processes and autonomy

In general, budgets and other management controls often maintain single-loop learning by monitoring expenditures, sales, profits and other indicators of performance to ensure that organisational activities remain within established limits. Especially bureaucratised organisations have fundamental organising principles that actually obstruct the learning process. Bureaucratisation tends to create fragmented patterns of thought and action. Situations in which policies and operating standards are challenged tend to be exceptions rather than the rule. Under these circumstances, single-loop learning systems are reinforced and may actually serve to keep an organisation on the wrong course (Morgan 1998, 79–81).

Within the Finnish higher education system, several barriers and policies worked to prevent the autonomy of university units and their academics, including external (Ministry of Education) and internal (heads of departments, deans and rectors) controlling and steering (output-oriented degrees, publications, funding principles) and external and internal (managerial) supervision and (administrative) bureaucracy (personnel liability to practice cost accounting, to monitor their working hours and to report their performances) (see Kuoppala, Näppilä, & Hölttä 2010).

Theoretical assumptions of new cybernetics and system theories

Autopoiesis

An autopoietic system "grows" and maintains itself by reference to itself. It uses a self-referential circular process in a system of continuous self-making (Glanville 2008; Maturana & Varela 1980). "I" is the shortest self-referential loop. One creates oneself by creating oneself. "I" is the operator, who is the result of the operation (von Foerster 2003, 304). An autopoietic system is stable through its (dynamic) ability to keep on making itself anew (Glanville 2008). The basic goal of an organism's behaviour is to maintain its own organisation, its identity, which enables the system to emerge (Brier 2008).

According to von Glasersfeld (2002, based on Maturanas work), autopoietic systems are closed homeostatic systems with no input or output. The term "closure" is intended to indicate that the equilibrium of the autopoietic system may be perturbed from the outside, but there is no input or output of "information"; its actions are in the service of its homeostasis (inner equilibrium). Cognition as a process is constitutively linked to the organisation and structure of the cognising agent. What a cognitive organism comes to know is necessarily shaped by the concepts it has constructed (von Glasersfeld 2002, 13–14).

The theory of autopoiesis accepts that systems can be recognised as having "environments", but insists that relations with any environment are internally determined (Maturana & Varela 1980). A living system responds to its environment in ways determined by its autopoiesis. It constructs its environment through the domain of interactions made possible by its autopoietic organisation. A living system operates within the boundaries of an organisation that closes in on itself and leaves the world on the outside (see Vanderstraeten 2001, 299).

Self-organising

"Intelligence organizes the world by organizing itself" (Piaget 1937, 311) and intelligence evolves (Morgan 1998, 86). According to Prigogine (1980; Prigogine & Stengers 1984), the self-organising system is in a constant state of chaos and order, i.e. it alternates between consecutive overlapping cycles of chaos and order and order and chaos. After organising itself and being driven into chaos, it re-organises and subsequently comes under threat and is driven into disorder, etc. In systems that are capable of self-organisation, entropy is necessary and indispensable. Entropy introduces uncertainty, imbalance and confusion into the system, and it is this very instability that gives the system its capacity for self-organisation (Glandsdorff & Prigogine 1971). It is the self-questioning ability that underpins the activities of the system that enables it to learn ("double-loop" learning) and self-organise (see Morgan 1998, 78–79).

Concerning dynamic, self-organising systems, Kauffman (1995; 2000) emphasises spontaneous and diversified networks, self-selection, self-oriented activity, self-interest and build-in purpose. According to Kauffman, living systems (autonomous agents) live on the edge-of-chaos. To renew themselves, these autonomous agents actively seek new opportunities and try to utilise these opportunities. Spontaneous and diversified networks will create possibilities for self-renewal. This self-interest should be balanced with the environment. Otherwise, spontaneous cooperation with the environment would be impossible.

Second-order cybernetics

In comparison to second-order cybernetics, first-order cybernetics may be seen as a limited case whereby the link from observed to observer is sufficiently weakened (or ignored). Under such circumstances, we assume that the observer simply observes what is going on, neutrally and unmoved, instead of changing behaviour in response to the observed. In second-order cybernetics, circularity becomes central, and a subject becomes its own object (or subject!). Control is circular, and the controller and controlled are roles determined by

an observer. Second-order cybernetics is developed when the understandings developed in cybernetics are applied to the subject itself, thus enhancing the subject. Self-reference is at the heart of second-order cybernetics and brings with it autonomy and identity (Glanville 2008).

The constructivist theory of knowing, one of the cornerstones of second-order cybernetics can be briefly summarised in the principle: Knowledge is the result of a cognitive agent's active construction. Its purpose is not the representation of an external reality, but the generation and maintenance of the organism's equilibrium. The value of knowledge cannot be tested by comparison with such an independent reality, but must be established by its viability in the world of experience (von Glasersfeld 2002).

In a "second-order stipulation", the observer enters the system by stipulating his own purpose. Social cybernetics must be a form of second-order cybernetics so that the observer who enters the system shall be allowed to stipulate his own purpose: he is autonomous. If we fail to do so, someone else will determine a purpose for us. Moreover, if we fail to do so, we shall provide excuses for those who want to transfer responsibility for their own actions to another. Finally, if we fail to recognise everyone's autonomy, we may turn into a society that attempts to honour commitments and forgets about its responsibilities (von Foerster 1979).

Information on efficiency as an aspect of self-regulation

Self-regulation

Contact with the environment is regulated by the autopoietic system; the system determines when, what and through what channels energy or matter is exchanged with the environment (Maturana & Varela 1980). For example, the nervous system is organised (or organises itself) so that it computes a stable reality. This postulate stipulates "autonomy", that is "self-regulation", for every living organism. "Autonomy" becomes synonymous with the "regulation of

regulation". This is precisely what the doubly closed, recursively computing torus does: it regulates its own regulation (see von Foerster 2003, 244).

Information

The environment contains no information; the environment is as it is (von Foerster 1984, 263). From the autopoietic perspective, systems are informationally closed. No information crosses the boundary separating the system from its environment. This radically alters the idea of the cybernetic feedback loop, for the loop no longer functions to connect a system to its environment (see Vanderstraeten 2001, 299). The relation between a thinking organism and its environment is only very rarely explicable in terms of direct causal links (see von Glasersfeld 2002, 6). Information and meaning in their broadest sense arise only from those self-organised systems which we call living, and which have a practical and historical relationship with the domain of the living (Brier 2008).

Cybernetic epistemology is, in essence, constructivist: knowledge cannot be passively absorbed from the environment; it must be actively constructed by the system itself. The environment does not instruct or "in-form" the system. The environment did not instruct the organism about how to build the model: the organism had to find out for itself (Heylighen & Joslyn 2001, 21). Furthermore, the inner state of the organism, its particular cognitive structures, its individual mental focus and interests, including its goals, had to be taken into account (von Glasersfeld 2002, 6).

When information is considered in a systemic context, it refers more to an "event" than to a "fact". Information changes the state of the system. Information is more of an experience than a fact. Information is the basic unit of an event in a system: this is not just data referring to facts, but information that affects people on a personal level. Only if information causes reactions (i.e. changes the state of the system) will it become a process element. Information is always information for a system (Luhmann 1995, 67, 69).

Efficiency

The problem of efficiency is to determine, at all levels of analysis, the cost of any particular element of performance and the contribution which that element of performance makes towards accomplishing the objectives. When these costs and contributions are known, the element of performance can be combined in such a way as to achieve maximum reduction. The problem of efficiency is to find the maximum of the production function, with the constraint that total expenditure is fixed (Simon 1997, 263–264). The theory should also say something about the technology that underlines the firm's production function, the motivations that govern the decisions of managers and employees or the processes that lead to maximising decisions (1997, 20).

According to Birnbaum (1988) teaching, research and services are each performed with the use of different technologies. Raw materials that need to be worked on differ, and they affect the technologies employed. The people applying the technology at the various institutions differ in terms of their preparation and skills. Institutions allocate their work effort differently (1988, 44–45). The technology of university production (of learning and scholarship) is unclear and highly idiosyncratic to the institution, the department and the individual professor (see Johnstone 2009).

Actual problems, as they present to the administrator, are always concerned with relative efficiencies, and no measure of absolute efficiency is ever needed. The theory does not require a numerical measure of efficiency, but merely a comparison of more or less between efficiencies of two alternative possibilities. Under these circumstances, the definitions of efficiency as a ratio of output to input and as a ratio of the actual to the maximum possible amount to the same thing (Simon 1997, 258). If two results can be obtained with the same expenditure, the greater result is to be preferred. Two expenditures of different magnitude can, in general, be compared only if they are translated into opportunity costs, that is, if they are expressed in terms of alternative results (p. 259). According to Simon (1997, 261), the work pace of workers cannot be considered as a valuationally neutral element—or else we would be led to the conclusion that a "speed-up" would always be eminently desirable.

If cost is measured in monetary terms, then the wages of employees cannot be considered as a valuationally neutral element, but must be included among the values to be appraised in the decision.

Perhaps the simplest method of approach is to consider the single member of the administrative organisation and ask what the limits are in terms of the quantity and quality of his output. These limits include (a) limits on his ability to perform and (b) limits on his ability to make correct decisions. To the extent that these limits are removed, the administrative organisation approaches its goal on high efficiency. Administrative theory must be interested in the factors that determine the skills, values and knowledge with which the organisational member undertakes his work. These are the "limits" to rationality, with which the principles of administration must deal (Simon 1997, 45–46).

Re-thinking the theoretical assumptions of self-regulation at universities

Researchers and teachers regulate their own regulation. Control is circular and controller and controlled are roles determined by an individual researcher and teacher. Researchers and teachers are autonomous. Their actions are in the service of their inner equilibrium. Moreover, contacts with different kinds of environments are regulated by researchers and teachers. They will respond to their environments in ways determined by their autopoiesis. To be renewed themselves, researchers and teachers actively seek new opportunities and try to utilise these opportunities. Essential features include self-selection, self-oriented activity, self-interest and build-in purpose. To self-regulate, the individual inner equilibrium, interest and evolution of researchers and teachers, including their goals, have to be taken into account.

Successful self-regulation needs information on efficiency, in other words, optimal use of resources. It is also important to know what skills, values, technologies and knowledge individual researchers and teachers will undertake in their work. Researchers and teachers in universities need information on their resources and an effective use of these resources. They

need this kind of information to control their actions, to create order and to observe their performance. This kind of information on efficiency is defined through its impact. Information changes the states of researchers and teachers. Information is an experience, information that affects researchers and teachers on a personal level. It is only when this kind of information on efficiency causes reactions that it becomes a process element. This kind of information on efficiency is information for researchers and teachers.

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Understanding academic leadership using the four-frame model

Johanna Vuori

Introduction

Is your university a well-oiled machine or a factory where employees are considered resources in the production system, which can be engineered to produce the most efficient output under the plans and control of a hierarchical management? Or can your university be compared to a family, in which nurturing mothers and fathers try to ensure that everyone can use their personal strengths for the benefit of all? Or perhaps it can be likened to a jungle, in which different groups and alliances compete with each other to advance their own agenda and win the maximum amount of scarce resources? Or do the staff of your university, in a similar fashion to people in a temple, strive towards a greater purpose that is meaningful to everyone?

Bolman and Deal (1984; 1991; 2008) use these four metaphors—a machine, a family, a jungle and a temple—to illustrate four fundamentally different approaches to looking at organisations. They call these approaches frames, which are cognitive frameworks that help us direct our attention to what we consider important. They influence our perception of what we see, what we hear, how we distinguish problems, how we interpret events and what kind

of information we are willing to collect to support our thinking and pave the way for the actions we are about to take. However, frames also act as cognitive blinders, for while they help us see and hear certain issues, they also blind us from seeing and hearing other signs and opportunities.

In this chapter, the four-frame model and the concepts of reframing and multi-framing will be introduced. The review is based on Bolman and Deal's bestselling book *Reframing Organisations—Artistry, Choice and Leadership*, which was originally published in 1984 as *Modern Approaches to Understanding and Managing Organisations* and is now in its fifth edition.

Following an introduction of the main concepts of Bolman and Deal's model, a short overview of the research and the critique on the four-frame model will be provided. A reader interested in the original references for this research can consult Bolman (2017) or Vuori (2011, 81–90). The conclusion section evaluates the merits and challenges of utilising the four-frame model in the study of academic leadership.

The four frames

To help readers capture the essence of the concept of frame, Bolman and Deal (1984; 1991; 2008) offer many synonyms, referring to them as *windows*, *filters*, *prisms*, *perspectives*, *orientations*, *mindshapes* and *lenses*. According to Bolman and Deal, frames are key to understanding leadership because frames direct what leaders think and how they will behave. Bolman and Deal describe four distinct leadership frames: structural, human resource, political and symbolic.

The structural frame approaches an organisation as a hierarchical system operating with a predetermined chain of command, well-established rules, procedures, and processes. Central concepts of the structural frame involve prioritising, rules, policies, goals, roles, technology, environment and orderly decisions. The main leadership tasks within the structural frame include ensuring that goals are reached, results are obtained and that the organisational structure is attuned to accomplishing tasks. Moreover, a leader with this frame focuses on efficiency, planning, control and decision-making. Seeing the

organisation through the metaphor of a machine symbolises this leadership frame.

The human resource frame echoes a leadership orientation which holds that human and organisational needs should be aligned to get results. The strategy to make change is created through collective action. Leaders who use this frame attempt to encourage staff to participate in decision-making. Moreover, a leader using this frame is willing to invest time and effort on employee needs, motivating and helping them reach their goals. Key concepts within this leadership frame include building consensus, solving problems, teams, needs, skills, relationships, loyalty and commitment. Seeing the organisation through the metaphor of a family symbolises this leadership orientation.

The political frame differs from the orientations described above, as the concepts of power, conflict, competition and organisational politics are placed front and centre. In this frame, organisations are seen as consisting of competing groups that manoeuvre with the aim of gaining power to control the allocation of scarce resources. A leader within this frame tries to advance her or his own agenda by building constantly changing coalitions. Through bargaining, negotiating, influencing and analysing competing groups' strategies and stakeholder moves, a leader using this frame tries to advance her or his interests. The metaphor of a jungle illustrates the orientation of a leader with a political-frame approach to the organisation.

A leader with a symbolic frame perceives the organisation as a cultural system of shared meanings. It is the leader's job to act as a catalyst or facilitator to build and maintain a culture based on shared meanings. By bonding people through organisational culture and using stories, artefacts, rituals and ceremonies, the leader within this frame tries to direct the proceedings on a path that leads to the organisational vision. Central concepts within this frame include meaning, culture, rituals, stories and heroes. Therefore, the metaphor that is congruent with this leadership frame is a temple.

Bolman and Deal (1984) reveal that they came up with the model while planning a course on organisational theory for Harvard University and decided to incorporate different schools of organisational theory into a coherent theory

that would satisfy them both. Thus, the structural frame in Bolman and Deal's model incorporates the ideas of rationalist systems theories. Conversely, the human resource frame builds on the ideas of the human research school of organisational theory, while the political frame reflects the ideas posited by the political school of organisational theory. The symbolic school of organisational theory, particularly the work of Cohen and March (1974), constitutes the basis of Bolman and Deal's definition of the symbolic leadership frame.

Therefore, rather than regarding the four-frame model as a theory, it should be considered an incorporation of central schools of organisational thought. Bolman and Deal also acknowledge the influence of Morgan's (1986) *Images of Organisation* and Goffman's (1986) *Frame Analysis* in their thinking. However, the work of Bolman and Deal (1984) has had a profound impact on two classic books on higher education: Birnbaum's (1988) *How Colleges Work* and Bergquist's (1992) *The Four Cultures of the Academy* (for a comparison of these three, see Vuori 2011, 72–81). Moreover, Bolman and Gallos (2011) wrote the book *Reframing Academic Leadership*, in which they discuss the application of the four-frame model in a higher education context.

Frames direct what leaders see

Bolman and Deal (1984; 1991; 2008) argue that frames influence leaders' decisions regarding which organisational behaviours to focus on, which questions to raise, which alternatives to consider, what is perceived to be a problem and what courses of action should be taken to solve that problem. Frames influence, for example, how a leader approaches an employee whose work has gone downhill lately. A leader with a structural frame might regard this as employee underachievement and, through this frame, try to solve the problem by setting more pronounced performance targets and accelerating the reporting and control cycles. Conversely, a leader with a human resource frame might perceive the issue as a motivational problem and attempt to increase time spent with the employee to discuss her or his personal issues and aspirations. A leader with a political frame might interpret the situation as a sign of the

employee having a hidden agenda and possibly advancing competing interests. Therefore, the politically-oriented leader might be willing to analyse possible scenarios, weigh how important the input of the employee should be and make decisions to move, or not, based on that analysis. A leader with a symbolic frame, instead, might be prone to seeking ways to highlight the purpose and meaning of the employee's and organisation's work.

Thus, for example, depending on the frame, a leader in an academic organisation might react in very different ways to student complaints about a lecturer's teaching quality. A leader with a structural frame might undertake actions to see whether the curriculum has been adhered to; a leader with a human resource frame might encourage teaching in teams; a leader with a political frame might have the courage to wait patiently; and a leader with a symbolic frame could, for example, arrange an event at which alumni speak about the value of the education they obtained from that institution.

Reframing and multi-framing to avoid freezing

According to Bolman and Deal (1984; 1991; 2008), frames, while directing the attention of leaders to certain signals in the organisation, can also box in leaders so that they end up responding only in ways that are congruent with their chosen frames. Leaders wind up shaping situations to fit their orientations, even when the approach does not work, leaving them stuck with a limited solution kit to handle emerging problems. To avoid this kind of freezing of the mind, Bolman and Deal suggest that leaders practice breaking away from their existing frames and try to see their organisations through a different kind of lens. **Reframing** refers to the leader's ability to shift between different frames, whereas **multi-framing** in Bolman and Deal's vocabulary means a leader's competence in using different frames simultaneously. They suggest that multi-framing makes leadership more effective because it allows leaders to detect more signals in their environment, provide a variety of interpretations to complex events and choose between different alternatives in their problem-solving kit. They further suggest that through multi-framing, leaders are better-equipped

to balance the often-conflicting and complex demands of different interest groups in the organisation's internal and external environments.

When multi-framing, a leader accepts the view that organisations are ambiguous—full of conflicts and colliding interests—acknowledging that most organisational problems are ill-defined and that several solutions are available. When multi-framing, a leader takes the view that most often, management control of events and actions is an illusion, yet decisions must be made (Bolman & Deal 2008).

With the four-frame model, Bolman and Deal also take a stand on a long-running debate over where management and leadership begin and end. While the traditional division separates management from leadership by distinguishing between the concern for tasks and the concern for people, Bolman and Deal (1991) argue that managerial effectiveness refers to the use of structural and human resource frames, whereas leadership effectiveness depends on the use of political and symbolic frames. Both are needed, so the ability to use all four frames is a sign of an effective leader, particularly when leading change.

Research using the four-frame model

Bolman and Deal's four-frame model has been used to study leadership in a variety of contexts. In addition to studies in higher education leadership (e.g. Bensimon 1989; Kezar, Eckel, Contreras-McGavin & Quaye 2008; McArdle 2013), it has been applied in the field of school management (e.g. Hellsten, Noonan, Preston & Prytula 2013; Thompson 2000), and within non-profit (Heimovics, Herman & Jurkiewicz Coughlin 1993; 1995) and business organisations (Bolman & Deal 1991; Seyal, Yussof, Mohammad & Rahman 2012). To explore whether leaders in the research samples can reframe and multi-frame, i.e. use one, two, three or four different leadership frames, both quantitative (e.g. Mosser & Walls 2002; Turley, 2004) and qualitative research methods (e.g. Heimovics et al. 1993; Tan, Fatt Hee & Yan Piaw 2015) have been applied. Research designs have also included settings in which researchers have

combined the leaders' self-evaluation of their frame usage with the assessment of the frame use, as perceived by the leaders' colleagues or subordinates (e.g. Scott 1999), as well as settings in which research combines qualitative and quantitative methods (e.g. McArdle 2013).

Bolman and Deal (1991) themselves have conducted cross-sectional studies using their four-frame model and have concluded that in a higher education context, multi-framing seems to be essential, whereas in their comparison group of companies, managerial effectiveness was primarily connected with the use of structural frames. Moreover, in this research, Bolman and Deal have shown that contrary to the beliefs of many management-development professionals, the political frame in all samples was a better predictor of leadership effectiveness than the human resource frame.

Other research within higher education has been conducted among college presidents, university athletic directors, department chairs and programme directors of different disciplines and professional fields (Vuori 2011, 81–88). The lion's share of these studies involved dissertations for PhD or EdD degrees at US universities, which primarily used survey instruments, while qualitative exploration of frame usage by academic leaders has been less common.

Critique

The research that builds on the four-frame model belongs to the constructivist paradigm of leadership research, which holds significantly different assumptions on leadership research than the positivist paradigm. Positivism aims to discover universal truths that can be generalised so that predictions can be made based on research findings. Positivist leadership researchers study, for example, the leadership traits and behaviours that effective leaders possess and exhibit. Constructivist research rejects the search for universal truths and builds on assumptions that reality is constructed through individual interpretations. Constructivist leadership research sees leadership as a social construct that emerges through interaction and people's own meaning-creating processes. One stream of constructivist leadership research focuses on leaders'

cognitive processes, while a sub-stream—in which four-frame research situates itself within this research approach—concentrates on the mental models of leaders and followers.

Thus, the critique posed against the application of Bolman and Deal's four-frame research should be posed within a constructivist paradigm, inquiring into whether the model can provide insight into the mental processes of leaders. In particular, in a higher education setting, can the model guide a researcher towards discovering something profound in the context of academic organisation and leadership?

The criticism of Bolman and Deal's model first expresses a very valid concern over whether the route from a leader's thoughts to actions is as simple as the model presumes, or whether this is just evangelist, wishful thinking. Alternatively, might it be that the organisation-specific practices and procedures, in fact, narrow the choice of leaders' mental maps and alternatives regarding possible actions? A second point of criticism that has been raised is whether the leadership frames can be voluntarily chosen and learned, and if so, whether multi-framing would lead to thinking that is overly complex. A third point of concern has been whether the four frames suggested by Bolman and Deal represent male-dominant leadership thinking and suppress the female voice in leadership (see review of the critique in Vuori 2011, 88–90).

Research has contradicted the second and third points of criticism by showing that even after two years, participants who were trained to use the four frames and became acquainted with the concepts of reframing and multi-framing were of the opinion that they had a positive effect on their leadership (Dunford & Palmer 1995). Furthermore, research has found no differences between the male and female uses of frames (Bolman & Deal 1991; Thompson 2000). However, the first point of criticism on questioning whether the thinking of a leader affects the actions that will be undertaken is a critical-concern issue on which each researcher using the four-frame model needs to take a stand.

Bolman and Deal's own answer to this challenge involved developing a survey instrument that combined a leader's self-assessment with a survey of

the leader's followers or colleagues so that they could provide evidence of the leader's performance. Another option, and perhaps one that is more congruent with the constructivist paradigm, is to approach the dualism of managerial thought and action in the light of Weick's (1995) ideas about sensemaking as an effort to connect beliefs and actions. Weick argues that beliefs and actions are intertwined: "To believe is to initiate actions capable of lending substance to the belief" (p. 134; see also Birnbaum 1988).

Therefore, if a constructivist-oriented researcher of academia aims to study the sensemaking of academic leaders, Bolman and Deal's four-frame model might be of use, particularly if one abandons the survey instrument and applies qualitative research methods to concentrate on listening in order to discover how the informants themselves find meaning in their work, as opposed to the survey instrument, in which respondents are forced to choose from pre-defined categories.

Conclusions

Despite having been introduced as early as 1984, the four-model paradigm has the potential to shed light on the complexities of challenges in higher education organisations. With its structural and human resource frames, the model poignantly covers the two sides of the global management script (Meyer 2002; Vuori 2015), which refers to shared ideas about management and organisations that travel around the world and result in the creation of similar management structures in both the private and public sectors—higher education being no exception. The global management script defines what legitimate managers do in efficient organisations and emphasises both rational management and employee empowerment.

The structural frame illustrates the mental map of a leader who is surrounded by the overtly rational, managerialist ethos of making higher education more efficient and more accountable through management. It places managers in the roles of rational agents who aim to control uncertainties in their environment. These managerialist-driven tendencies to create corporate-

like management practices have hit some higher education systems and sectors harder than others. For example, it is difficult to imagine such managers at Finnish universities of applied sciences, who would not have encountered these pressures, nor needed to act on them. The structural frame legitimises their search for increased rationality, with more developed ways to attack irrationality in their environment (Vuori 2011).

In addition to echoing the need for rational management, the standardised script for modern management sets demands for management to empower employees. Organisations are expected to engage their employees and encourage them to participate in organisational affairs. This quest for a more employee-driven, collegial culture may co-exist, even in higher education organisations that are run with overtly managerialist principles and that have no history of shared governance (Vuori 2015). Bolman and Deal's human resource frame captures the essence of this quest. Moreover, the concept of reframing helps in understanding that both managerialism and collegialism may exist in parallel in a modern university and that an academic leader must have the competence to shift back and forth between the use of structural and human resource frames to survive the conflicting demands set by both.

However, in its complexity, an academic organisation has characteristics that are not so evident in other organisations. The political and symbolic leadership frames provide openings for understanding the work of an academic manager in the loosely coupled, yet mission-driven higher education organisation. For this reason, the four-frame model and the multi-framing concept have the potential to provide insights for a constructivist-oriented leadership researcher who aims to make sense of the many undercurrents, complexities and ambiguities of an academic organisation.

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University autonomy
From past to present

Vuokko Kohtamäki & Elizabeth Balbachevsky

Introduction

Universities everywhere have always valued and prided themselves of their autonomy. Universities, accompanied by their autonomy, originate from various economic, historical, legal and political systems and developments, which have evolved in different phases. University autonomy is frequently seen as having emerged from the Medieval and Aristotelian University, a place renowned for the creation and transmission of knowledge. The word autonomy originates from two Greek words: autos (self) and nomos (law). According to the Oxford Dictionary, autonomy is the capacity of an agent to be independent and self-controlled. This agent can be an individual, organisation, community or society. The concept of autonomy is examined in various disciplines (political science, philosophy, education, law, etc.), and its interpretations vary on the basis of the disciplinary context applied. In this chapter, we will use the concept of autonomy in its empirical and theoretical constructs in the field of higher education research.

Autonomy as a phenomenon is complex, multi-dimensional and is both a context- and time-related issue. Different meanings attached to the same word

can be confusing, however, the meanings and interpretations of autonomy vary in time and different higher education policy contexts. Higher education studies have been interested in university autonomy for the last 30 years. This time span is short when one takes into account that universities have existed for hundreds of years. The University of Bologna, the first European university, has been in existence since 1088. Most autonomy studies have empirically considered the legal, political and financial relationships between state authorities and universities in different national contexts. Moreover, there are only a few international comparative studies on university autonomy. For many studies, one common trait regarding the recent university reforms taking place in different countries in Europe is their efforts to ensure (and strength) university autonomy, arguing that one important feature of the traditional model of university governance was its lack of institutional autonomy (e.g. Surcock 2015).

In this chapter, we will show how the current developments of autonomy are increasingly framed by reforms linked to the elements of new public management (NPM). In the NPM ideology, autonomy is seen as an option for universities to serve market-driven governance mechanisms to boost the efficiency and effectiveness of university operations. It is important to note that emerging societal expectations on universities do not evolve separately from their autonomy.

In this chapter, we will analyse university autonomy by discussing the concept from four perspectives. First, we introduce the traditional model of autonomy, linked to the ideals of the modern university. Second, we discuss how the concept of autonomy shifts when taken as a component of market-driven tools to enhance socio-economic development. Third, we consider autonomy as a relationship and how it may emerge in the interaction between universities and their environment. Fourth, we introduce the prevalent status and frames of university autonomy in Finland and in the state of São Paulo, Brazil, for readers to engage in their own reflections of these country examples. These countries were selected because the authors of this chapter know the country contexts and their higher education systems.

The traditional model of university governance and autonomy

In the context of the traditional model of university governance, governments have held university affairs at arm's length. Usually, the government sustained strict control over all administrative and budgetary decisions. As part of the civil service, universities were supposed to abide by the regulations governing the operation of the bureaucratic machine. Decisions related to the size of the staff, opening (or closing) of academic positions and even the rules structuring academic careers were all under the strict control of government officials. In many countries, even the infrastructure, including buildings, were considered government property, and decisions regarding reforms, maintenance and new expansions were negotiated, case by case, with authorities and high-level bureaucrats (Bleiklie & Kogan 2007).

In spite of all these significant constraints, universities have always proudly sustained the idea of being autonomous institutions. In what sense could we understand this autonomy? What components and particular dynamics characterise traditional university autonomy? First, university autonomy, in its traditional sense, is usually adjectivised by the noun academic. In this sense, autonomy should be taken as a synonym for academic independence. It means that no matter how strict the bureaucratic controls posed by the state over a university, it could still be regarded as independent as long as the decisions regarding the contents of academic life stay in the hands of the academic body itself. From this perspective, the day-to-day life of the university as an organisation could be constrained by the rules posed by the state bureaucracy. Its autonomy "is accomplished by securing the individual freedom of the scholar" (Nybom 2007, 915). In this sense, assuring that academically relevant decisions remain in the hands of the Academic Senate is sufficient to sustain institutional autonomy. The key features of this institutional arrangement are collegiality and disciplinarity. Together, these two aspects of academic life assure that key decisions that are relevant for reproducing the institutional logics of the university preserve academic authority. In this sense, inside the university, actors share norms and objectives, and its internal factors govern university dynamics (Olsen 2007, loc. 453). Autonomy is assured, despite the

fact that the government bureaucracy takes the key decisions regarding the material reproduction of the university as an organisation.

From an organisational perspective, the traditional university, as described above, functions as an arena whose primary role is to coordinate, control and make compatible the norms and values that are formulated and shaped outside the organisation. Under this perspective, autonomy supposes that organisational rules, authority and stakeholders recognise that what an academic does is "legitimately guided by external interests, values, norms and standards rather than by an internally generated organisational policy" (Brunsson & Sahlin-Andersson 2000, 734).

It is this condition of the university as an arena which enables the traditional university to become a place par excellence in the development of science and the consolidation of the Republic of Science (Polanyi 2000). Crane (1972), with her pioneer study about knowledge circulation inside research networks, provided the first research evidence regarding the crucial role played by these networks in organising and qualifying the outputs of academic work. One of her findings, which has never been contested in the literature, states that academic work, when done inside a weak or loose network, loses quality and relevance. Without the support of a strong "invisible college", knowledge production cannot experience the cumulative pattern of growth. Under these circumstances, knowledge production revolves in a circular pattern, revisiting old questions without successfully adding new insight or evidence.

The traditional university, regardless of its mode of organisation (Humboldtian, Napoleonic, Anglo-Saxon, American, etc.), has always operated as a hybrid institution of governance, an arena (Benz 2007). In this organisational architecture, two different sets of norms overlap: the one produced by the local organisation and the other produced by the wider networks linking peers from the same field across different universities. When these two logics clash, it is the former that is expected to abide by the latter, assuring that the larger interests of the science community prevail. In this sense, therefore, academics have always perceived themselves as both members of a faculty from a specific university and members of a wider community of

peers, and have felt more committed to their discipline than to their university (Altbach 1996).

From traditional governance to managerial autonomy policies

The end of the 1980s saw common traits in the successive waves of reform experienced by universities in different countries. They all emphasised university actorhood (Krücken, Blümel & Kloke 2009) and reinforced the role of institutional leaders and managers, while at the same time supporting institutional differentiation and profiling. According to Brunsson and Sahlin-Andersson (2000), the organisational reforms came in packages. To be (re-) constructed as an organisation, an entity should acquire (or reinforce) the characteristics that are at the core of the organisation's profile. It should gain a particular identity—which means emphasising its autonomy and establishing boundaries that will allow it to command its resources and set goals. Second, it must build (or reinforce) an internal hierarchy to sustain the implementation of more coherent institutional policies, necessary to fulfil the goals benchmarked by the particular entity. Finally, it should reinforce a particular rationality, required to establish priorities and guide actions. Thus, the reforms signified a new the concept of autonomy. Under the new assumption, autonomy means that the organisation can control resources and boundaries, commanding opportunities relating to entering or exiting the organisation (Brunsson & Sahlin-Andersson 2000, 723).

Autonomy is always relational, since it is produced through the relationship between one agent and other agents (internal or external ones). Nowadays, autonomous universities as organisations are thought to have their future strategies in their own hands, what is called actorhood (see above), which constitutes part of the responsibility of institutional leadership and managers. Recent university autonomy policies have increasingly focused on the managerial type of autonomy, which implies that autonomy is understood as an external incentive given to universities to respond to various external stakeholders. While given to universities, it is targeted at reforming autonomy

at the institutional level. The autonomy of a university does not mean operating and allocating resources without accountability mechanisms. According to De Kruif (2010, 480) "Autonomisation is a process in which managerial responsibility is transferred from bureaucratic hierarchy to managers that can be held accountable for the responsibilities attributed". Expectations regarding the positive influence of managerial autonomy policies are very strong everywhere.

The following motivations to recent university autonomation policies can be identified as:

- Enhancing capacity to operate in a competitive environment
- Enhancing responsiveness to diverse external demands
- Enhancing flexibility to respond to changing needs
- Enhancing revenue diversification
- Enhancing efficiency in the use of resources
- Improving the performance of universities
- Improving the sustainability of universities

Autonomy is used instrumentally to enable universities to (independently) operate in various environments. Musselin (2007), following Brunsson and Sahlin-Andersson (2000), argues that these policy changes could be summarised as a process of dampening the character of the university as an arena (or agent, if one looks from the point of view of the government) and reconstructing it as an organisation. This process ends up giving each university a unique identity (profile) that will support it to operate in a more competitive—market-like—environment.

Universities also operate in a global context, and their autonomisation is driven by NPM ideals, supranational organisations (EU, OECD), international league tables of universities and the competition for reputation and prestige between universities (Shattock 2014). Supra-national organisations pay considerable attention to maximising the socio-economic potential of universities. Autonomisation is a powerful public policy, which is changing the relationships between public service providers, society and the state. The following statement exemplifies the European Commission's (2006,

5) standpoint: "Universities will not become innovative and responsive to change unless they are given real autonomy". This statement shows that higher education policy documents discuss autonomy in a one-dimensional manner and as an externally provided incentive.

As pointed out above, autonomisation is an example of practices which began to strengthen as part of NPM. NPM reforms move the emphasis on governance and management practices from university inputs to outputs and outcomes (Pollit 2006; Verhoest, Roness, Verschuere, Rubecksen & MacCarthaigh 2010). From this follows the development and introduction of modern financial management systems and management practices in universities (Christensen 2011). They engender changes in the academic working environment and a shift towards new management and leadership structures and practices, professional management of teaching and research, profiling, performance and results orientation and accountability requirements, all of which are defined by an increasing orientation towards progress.

In organisational studies, autonomy is mainly considered as a relationship between a university and the state. However, other external actors, and universities themselves, can also be influential in relation to autonomy. The relationship between university and government (state) or other external organisations can be approached using, for example, resource dependence theory, principal agent theory or new institutional theory. These theoretical approaches to analysing the phenomenon of autonomy provide frames for understanding the relationships between two organisations in which autonomy and its various dimensions take their shape.

Kohtamäki (2009, see also Christensen 2011; Enders, Boer & Weyer 2013), using resource dependence theory, found that dimensions of organisational-level autonomy take their shape as legal, formal and real autonomy. Legal autonomy refers to regulative environments and whether universities under these stipulations exist and have autonomy to act as legally independent entities in relation to other legally independent entities. The 2010 Finnish university reform re-defined the frameworks of the new legal autonomy of universities by granting them independent legal status. It is worth noting that legal contexts

are country-specific and that legal systems vary. Formal autonomy is based on other formal boundaries, such as performance budgeting, performance funding and performance agreements (Herbst 2007), and can be shaped through other formal steering mechanisms by other agents. Real autonomy is experienced by university agents in the course of using certain aspects within autonomy in accomplishing university practices (Kohtamäki 2009; Enders et al. 2013). Actual autonomy is also a result of actions taken by a university to expand autonomy through fundraising activities, increasing incomes from research, consultancy or other professional or income-related activities. Legal, formal and real autonomy reflect current developments in university autonomy, all of which can be seen as manifestations of university autonomy under the frames of managerial autonomy policies, including ex-ante and/or ex-post restrictions and re-interpretations of such autonomy inside individual universities.

The composition of the university-wide income and expenditure structures is reflective of the institutional financial environment. It is also an operating environment for university academics to accomplish their teaching, research and third mission activities. Inside the university, the unit level income or expenditure structures do not necessarily reflect the university level financial structures. For academics, the resource, regulative and operational environment in which they work is their own academic unit, but it has linkages with the university level environment.

While universities typically have three funding streams: 1) basic funding (state), 2) tuition fees and 3) project funding, the composition of their funding environments, autonomy and accountability relationships and manifestations of autonomy are much more complex than described above. Depending on the shares of the three funding sources and the volume of academic activities under each stream, university autonomy has various forms, and there is no single notion of university autonomy. Moreover, the various operating environments in which teaching and research occur are not identical. A stronger regional and community role for higher education obviously provides new linkages and elements to the logics of university environments.

University autonomy in Finland and São Paulo, Brazil

This section provides two empirical examples of the frames of university autonomy from two countries: Finland and the state of São Paulo, Brazil. The Finnish Universities Act of 2009 outlines new frameworks for university autonomy. Before this, the financial autonomy of universities was extended at the beginning of 1990s when the then form of governmental funding was changed from line-item funding to block grant funding. It was a significant milestone from the point of view of universities and their strict governmental control. Block grant funding provided a way towards a performance-based steering system. Three-year performance agreements between universities and the Ministry of Education were launched in 1995. They have been applied since then, but nowadays, performance agreements are signed for a four-year period. The latest Finnish university autonomy reform (2010) was recently externally evaluated, and this chapter introduces some findings of the impacts. The pre-reform traditional university governance model was regarded as weak in terms of taking new university level strategic initiatives and making large-scale strategic decisions.

The findings of the university evaluation addressed clear signs of increasing managerialism, the new emphasis given to research management and a division between teaching and research activities. After the reform, university staff (both academic and administrative) had fewer opportunities to take part in decision-making. Decision-making is concentrated in the hands of individual managers (the rector and deans as the most powerful actors), who are dominating because the composition of new governing boards has changed radically. From the perspective of staff members, there are informal ways to influence the new governance structures. University research has increasingly developed on the basis of new research profiles. Financial dependence on state funding has continued, since the main funding body is the state, and a new funding formula provides strong incentives to follow the national funding formula inside the institutions (Ministry of Education and Culture 2016). Finnish universities are undergoing a major cultural change due to university reform, whose wider impacts remain to be seen.

In the 1980s, when Finnish state universities were under strict state control, the state government of São Paulo in Brazil made a major step to grant autonomy to its public universities, relinquishing itself from university control. This kind of withdrawal from policy-making authority/prerogatives is unknown to Finland. In February of 1989, the three São Paulo public universities reached a situation of unrestricted autonomy with regard to their finances and personnel.[1] From that year on, the three universities belonging to the state level government had guaranteed access to eight per cent of a major state revenue,[2] a tax applied to all commercial or service transactions occurring inside the state territory. Since then, these resources have been transferred to university administrations, with no strings attached.

The autonomy granted to the São Paulo state universities resulted from more than a decade of dissatisfaction with the unpredictability of their annual budget. This was due to the terms (subjective and politically-bounded) on which their individual funding was negotiated with the state governor. Such discontent united the academic staff and employee unions from the three universities, as well as student movements, in aggressive strikes. Indeed, the governor's decision to grant autonomy was made against the backdrop of one of these demonstrations. Thus, from the perspective of the unions and university authorities, achieving autonomy represented the fulfilment of a protracted aspiration. From the point of view of the government, the agreement was

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1   In Brazil, the federative arrangement allows state (provincial) governments to organise their own higher education systems that run parallel with the federal system and the private system. State universities have sole responsibility for the state level government and are not subject to the Ministry of Education's regulations or evaluation (as is the case of federal and private universities). The state of São Paulo, the richest and most dynamic economy in Brazil, created three universities, beginning in 1934 with the University of São Paulo (USP). The second, the University of Campinas (Unicamp), was created in the early 1960s, and the State University of São Paulo (UNESP) was formed in 1976, initially from the merging of 14 colleges scattered around the state territory. These three universities are considered among the best universities in Brazil, with strong commitments to graduate education and research.

2   This proportion was raised to 9.0% in 1990 and 9.6% in 1994, after further intense strikes within the universities. It has been frozen since then, but state revenues have increased in all these years. Therefore, the universities never lacked support for their expenses.

a price to pay in order to stop the increasing political costs created by the constant attritions between universities and government, usually escalated by the intense media coverage.

In this experience, autonomy was not an instrument of higher education (HE) policy, established inside a framework of negotiations between universities, government and other stakeholders. It can be better described as an abdication of such policies. Since then, whatever state level embryonic HE policy that does emerge is produced by the interaction between the State of São Paulo Council of Universities Rectors (CRUESP, created at the time of the autonomy decree) and the Unions' Forum, which congregates the three academic staff teams and the three employee unions from the three universities (Fórum das Seis).

In São Paulo's experience, the three universities preserved their former mode of governance, and the concept of the arena could still be employed to describe the way these universities organised their internal dynamics. Academic and financial autonomy produced some degree of actorhood for the universities, and it is possible to trace how each of the three universities differentiated and sought to define their profile by reinforcing specific traits. Nevertheless, the lack of a strong external policy framework means that inside each university, the academic logic remains predominant. All three universities preserved the federative arrangement that entitles a high degree of academic (and financial) autonomy for their disciplinary sub-units (faculties and schools), and inside each of these sub-unities, departmental units are influential players. In this kind of environment, interdisciplinary research and learning did not evolve as much as one would expect, and undergraduate and graduate education tends to develop on the backdrop of particular fads emerging from each disciplinary culture.

Conclusions

Autonomy is a relational concept in the university context, and it is a central hallmark of university organisations. It is worth noting that the idea of the

university is constantly evolving, and its purposes are viewed and understood in various ways. While the first medieval European universities had the right to admit/confer academic merits that entitled the recipient to undertake teaching, nowadays, the focus is increasingly on universities' societal impacts. Initially, the idea of university autonomy was to protect academic freedom from harmful external influence. The current trends aim to establish and expand links between academics and the external environment to a maximum. Bringing external expertise into universities is also favourable, and interaction with society is valued as one of the missions of universities. The visible and measurable external impacts of universities have a strong performance orientation, together with financial incentives. The changes listed above have implied several organisational reforms, institutional and intra-organisational mergers and new professional orientations in management and leadership in order to achieve performance objectives set for academic work. Academics are eager to protect their academic autonomy and collegialism. Tensions between managerial autonomy policy and academic values and standards are evident because organisational and individual goals do not frequently coincide.

University autonomy reform aimed at granting universities greater autonomy is one of the most frequently applied HE policy reforms in Europe, influencing the future of universities. Autonomy takes accounts of the progress of and competition between universities. There is no single definition of university autonomy that could be universally applicable to different HE systems or different types of higher education institutions (HEIs). Increasing volumes of HE students and the costs of HE force governments to pay attention to the role of universities in society. For national HE policy purposes, the idea of autonomy is to serve the purposes of public policy. The recent developments in HE policies, for example, in Europe, are typically reforms aimed at enhancing the autonomy of HEIs. Policies directed towards reinforcing autonomy do not evolve in isolation from other governance and management trends. Autonomisation is an example of changing practices which began to strengthen as part of the NPM orientation. NPM-oriented reforms reflect private sector practices by moving the emphasis in governance

and management from university inputs to outputs. New managerial practices evolve together with strong financial incentive structures. Nevertheless, autonomy can be produced under alternative policy frameworks, as the São Paulo experience exemplifies. In all cases, the larger the scope of the autonomy, the greater the degree of actorhood the institution experiences. Autonomy is always interpreted and reformulated inside universities, and not outside universities.

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The advent of managerialism in the Ethiopian higher education system and organisational responses through the lens of neo-institutional and resource dependence theories

Yohannes Mehari

Introduction

This chapter analyses the advent of managerialism in the university context. The quest for efficiency, accountability and transparency, which are the results of changes in the external environment, have forced universities to adopt organisational strategies and management structures that are most commonly found in business organisations (see Birnbaum 2001; de Boer, Enders & Leisyte 2007; Tahar, Niemeyer & Boutellier 2011). This development has brought enormous pressures to universities in their efforts to balance the pressures and requirements of business management tools (BMTs) with the internal values, beliefs, norms and practices of universities. At the core of the process of adopting externally-driven BMTs are the perceptions and responses of universities and their academic units to these tools. For this purpose, the chapter explores the Ethiopian higher education governance reform, with a special focus on the advent of "managerialism" as a radical organisational

change tool to ensuring efficiency, effectiveness and accountability in higher education institutions (HEIs). In doing so, it seeks to discuss how Ethiopian public universities and academic units perceive the advent of managerialism in higher education management and how they respond to such pressures and requirements by taking one public university as a case study.

The organisational perception and responses of universities to external pressures are analysed through the lens of resource dependence and neo-institutional theories. In the organisational studies literature, various theories have been developed and used to understand the adoption of a range of reforms and the responses of universities vis-à-vis environmental pressures (see Bastedo & Bowman 2011; Csizmadia, Enders & Westerheijden 2008; Gornitzka 1999; Kirby-Harris 2003; Reale & Seeber 2011; Siegel 2006). Two theories that are most applicable in this case are resource dependence theory (Pfeffer & Salancik 1978) and neo-institutional theory (DiMaggio & Powel 1991). The chapter also seeks to demonstrate how the two theories are used in studying organisational responses to governmental reforms in higher education. The data for the study was taken from the author's dissertation. It is a qualitative study, which relies on semi-structured interviews with 18 university leaders and members of the academic community as well as documents collected from the national and institutional levels.

However, before discussing the theoretical perspectives in detail, it is imperative to first discuss what kinds of changes have been taking place globally in the governance of higher education systems in relation to the advent of new public management (NPM) and managerialism as solutions to the perceived crises of universities. Further, it is also necessary to briefly address why these changes have occurred globally and in the African and Ethiopian higher education system in particular.

Managerialism in higher education institutions

Several studies in higher education research have witnessed growing changes in the higher education system policy framework of many countries over

the past few decades (see de Boer, Enders & Leisyte 2007; Hölttä 1995; Temple 2011). The drivers for change might take various forms at various times, but many agree on some fundamental elements, including but not limited to globalisation, demographic change and the advent of NPM and managerialism in reforming the public sector, in general, by incorporating business management models (e.g. Hood 1991; Pollitt 1993) and HEIs in particular (Temple 2011). The pressures on universities to strengthen central leadership, as opposed to the age-old collegial structure, by involving external stakeholders on boards and in top-down decision-making processes are seen as the growing influence of NPM and managerialism in the governance structure of universities (Carvalho & Bruckmann 2014; Enders, de Boer & Leisyte 2008). In other words, the reform measures in universities, which are influenced by NPM and managerialism, reflect the idea that "universities should be treated and reformed like any other public organisations" (Christensen 2011, 503), and as a result "universities have been put in a situation, in which they have to show that they are worth government's investments" (Hölttä 1995, 15).

The increasing move to instil business values and practices in university management and leadership as solutions to ensuring effectiveness, efficiency and accountability, however, have been under fierce criticism by higher education researchers (see Adcroft & Willis 2005; Birnbaum 2001; Bryson 2004; Larsen & Gornitzka 1995; Stensaker 1998; Temple 2005). Their central argument is that universities are special organisations with their own organisational culture, shaped by the requirements of very specialised professional knowledge and academic freedom (Clark 1983). They further argue that the advent of managerialism disregards traditional values and practices, thus altering the nature of higher education (Birnbaum 2001). Therefore, any attempt to reform universities with business management models are both incompatible and prone to resistance from academia, and at worst, they are likely to fail, without achieving their objective, as promised by those who mandated the reforms (see Christiensen 2011; Teelken 2012).

Despite these criticisms and forms of resistance, research shows that many universities around the world "have adopted organisational strategies,

structures, technologies, management structures and values that are commonly found in the private sector" (Teelken 2012, 271). The central question, however, remains whether universities are responding to these external pressures to improve their effectiveness and efficiency, as proposed by policy-makers, or are complying with the requirements to ensure their survival and legitimacy, as accentuated by both resource dependence and neo-institutional theories.

Managerialism in the Ethiopian higher education policy framework

The provision of higher education in Africa had been predominantly carried out by public institutions in which governments played leading roles in funding, steering and setting the rules of the game in which HEIs operate. However, massive expansions, coupled by meagre financial resources, not to mention the influence of international organisations such as the World Bank and the International Monetary Fund (IMF) through structural adjustment programmes, forced African governments to introduce multiple reform measures driven by the concept of NPM to the higher education sector (Moja 2004; Zeleza 2004). These internal and external forces have accelerated the corporatisation of university management, the commercialisation of learning and the commodification of knowledge (Zeleza 2004). The specific reform measures might take various forms in various African countries, but they all centre on restructuring the leadership and management practices of universities through market-friendly reforms, such as BMTs, to enable universities to effectively and efficiently respond to national and international development challenges (Varghese 2013).

As is the case in many African countries, following the massive expansion, the policy framework of the Ethiopian higher education system has also undergone radical change over the past two decades. With a mission to realise a comprehensive "state transformation" and "total system overhaul", and in line with recommendations by the World Bank, the Ethiopian government has embarked on multiple public governance reforms since the early 1990s

(Ashcroft 2010; Saint 2004). Since 2008, the reforms have been targeted at ensuring effective management and governance and a cost-effective, efficient and results-oriented system of management by implementing BMTs as a means for radical organisational change.

Some of the major and popular BMTs in the Ethiopian higher education context of reform initiatives are business process reengineering (BPR) and the balanced scorecard (BSC). Both the BPR and BSC reforms advocate for effectiveness and efficiency in the work processes of an organisation. BPR questions the status quo of an organisation by "disregarding all existing structures and procedures and inventing completely new ways of accomplishing work" (Hammer & Champy 1993, 33). In the realm of higher education, BPR targets the transformation of the core-processes, structures and cultures of an organisation, placing the institutional mission before disciplinary priorities, avoiding unnecessary programmes, re-examining and redefining long-held assumptions, finding new ways of measuring performance and reorganising the internal reward structure of universities (Birnbaum 2001). Moreover, despite the fact that BSC is not a radical organisational tool, it shares the basic aspects of BPR, such as effectiveness and efficiency of performance, by focusing on the strategic alignment of organisational goals with the national goals of the country.

The government has been exerting mounting pressures on universities to become more innovative, dynamic, responsive, results-oriented, effective and efficient in order to play an important role in transforming the country (Tilaye 2010). Despite strong resistance from academia, almost all public universities have been engaged in the development and implementation of BPR and BSC since 2008 (Kahsay 2012). Moreover, as establishing an integrated planning and performance management system is one of the basic requirements of BPR, the BSC has been found to be a complementary tool for the kind of radical organisational changes envisaged by BPR (Tilaye 2010).

Therefore, a closer look at Ethiopian higher education research shows that there are no scholarly studies supported by sound empirical evidence that comprehensively show how public HEIs in Ethiopia perceived and responded

to the implementation of BMTs. Furthermore, despite the need felt by Ethiopian scholars to study these phenomena, it seems that the issues have not been comprehensively studied using relevant theoretical perspectives that have been proven to be important in higher education research. Therefore, this chapter presents how these externally initiated BMTs have been adopted and how universities and basic academic units (BAUs) perceived and responded to them through the lens of resource dependence and neo-institutional theories.

Employing resource dependence and neo-institutional theories to understanding the organisational responses of universities to external pressures

This section provides the theoretical base for analysing organisational responses to government-initiated reforms. The focus of attention is to understand the ways in which organisations perceived and responded to new institutional environment requirements, demands, expectations and pressures at the university and BAU levels. Organisations of higher education are commonly understood as both technical systems, where the exchange of resources, inputs and outputs are essential for survival, and as social systems, characterised by incorporating actors and relationships where they are constructed and shaped by cultural systems embodying symbolically-mediated meanings (Scott & Christensen 1995a; Scott & Davis 2007). This implies that "every organization exists in a specific physical, technological, cultural, and social environment to which it must adapt" (Scott & Davis 2007, 19). Thus, the organisational response of universities and their BAUs to institutional pressures is here explored through a combination of resource dependence (Pfeffer & Salancik 1978) and neo-institutional (DiMaggio & Powell 1991) theories, which advocate the use of resources and social norms, respectively, as tools of organisational survival.

Several studies show that these theories provide distinct but complementary explanations regarding why and how organisations respond to institutional pressures (Gornitzka 1999; Greening & Gray 1994; Oliver 1991). Both theories are based on the common assumption that the survival of an organisation

largely depends on its responsiveness to external pressures, demands and requirements (Hrebeniak & Joyce 1985; Pfeffer & Salancik 1978). However, these theories also exhibit important differences. For example, for resource dependence theory, the foci are the ability to make strategic choices and the adaptive capability to guarantee a constant flow of resources that are important for the survival of the organisation (Pfeffer & Salancik 1978). Nevertheless, neo-institutional theory places more emphasis on the role of intuitional pressures, such as the myths, beliefs, norms, values, rules and procedures that influence the behaviour of an organisation (DiMaggio & Powell 1991).

Resource dependence theory in HEIs

Despite the fact that major organisational theories, namely resource dependence theory (Pfeffer & Salancik 1974; 1978), the garbage can model (Cohen & March 1986), the loose coupling concept (Weick 1976) and many insights about institutional theory (Meyer & Rowan 1978; Thornton 2004), are built on educational organisations in general and HEIs in particular (Cai & Mehari 2015), the use of resource dependence theory in higher education research mainly came to the fore in the 1990s (e.g. Goedegebuure 1992; Huisman 1995; Gornitzka 1999). It is a popular theory in the social science disciplines. It is specifically aimed at explaining organisation-environment relations, and it depends on a particular view of inter- and intra-organisational interactions (Pfeffer & Salancik 1978). Resource dependence theory is constructed to explain how organisations respond strategically and make active choices to manage their dependency on those parts of their task environment that possess important resources.

Resource dependence theory has three major assumptions. First, it starts from the very basic assumption that every organisational action is primarily guided by securing its survival. Second, the more organisations are dependent on the resources of a particular supplier, the more vulnerable they will be to following the rules and regulations of that resource provider. Conversely, when dependency is low, it is normal to expect an organisation to resist pressures coming from the environment. Third, this dependency on environmental

factors, however, does not necessarily mean that organisations are always passively vulnerable to the environment; rather, organisations can respond to and manipulate their environment to fit their capabilities (Patterson 2004) and set strategic choices regarding how to manage external environmental pressures (Rhoades 1992) by protecting, safeguarding or increasing the resources that they need to improve their performance, decrease uncertainty and survive (Pfeffer & Salancik 1978).

As resource dependence theory postulates an organisation's need to do more than adapt internally in order to be competitive (Bess & Dee 2008, 149), HEIs should thus be in a position to establish strategic relationships with various other organisations that control vital resources. For instance, there are some strategies or techniques that organisations, including HEIs, normally use to address dependencies (Pfeffer & Salancik 1978) and that ultimately enable them to develop the power to resist direct influences from the environment (Bess & Dee 2008). These techniques, which are visible in HEIs, are *dependency reduction*, *external linkages* and *the enactment of a new environment* (Bess & Dee 2008, 149).

Neo-institutional theory in HEIs

Since the seminal work of Meyer and Rowan (1977), institutional theory has become a popular explanatory tool in organisational studies. Even though the emergence of institutional theory dates to the 1940s, having gained popularity since the 1980s, it only gained the attention of higher education researchers in the 1990s. Since then, it has shown steady growth in its application to institutional analysis in higher education research (Cai & Mehari 2015). The use of neo-institutional theory in higher education research has largely focused on understanding policy and management issues, with a special focus on environmental and organisational relationships, isomorphism and institutionalisation (Cai & Mehari 2015).

Institutional theory "is not usually regarded as a theory of organizational change, but as usually an explanation of the similarity ("isomorphism") and stability of organizational arrangements in a given population or field of

organizations" (Greenwood & Hinings 1996, 1023). However, it incorporates important elements that provide a clear model of change aimed at linking organisational context and intra-organisational dynamics (Greenwood & Hinings 1996). Despite the fact that institutional theory has taken on a variety of forms (DiMaggio & Powell 1991; Scott 1987), its central concern remains the manner in which organisations exist and function in an environment dominated by rules, taken-for-granted assumptions, myths and norms that are considered to be appropriate and acceptable organisational practices and behaviours (DiMaggio & Powell 1991; Meyer & Rowan 1977; Oliver 1991; Scott 1987).

A plethora of studies within neo-institutional theory emphasise the survival value of organisational conformity to institutional environments (e.g. see DiMaggio & Powell 1991; Scott 1987; Tolbert & Zucker 1983). For organisations to survive and be socially accepted, they have to conform ceremonially in an institutionalised environment to rationalised myths composed of accepted cultural rules. In other words, failure to respond in accordance with norms and expectations may lead to conflict and illegitimacy (Diogo, Carvalho & Amaral 2015). This implies that an organisation's adoption and implementation of reforms or programmes which are supposed to bring organisational change are significantly determined by the extent to which the measure to be adopted is institutionalised, be it by law or gradual legitimation (Tolbert & Zucker 1983).

Therefore, the use of resource dependence and neo-institutional theories in examining the adoption of BMTs by the case university and its BAUs is premised on the assumption that the effects of the reform tools are conditioned by perceptions from the university and its BAUs regarding external pressures; the extent to which the university is subjected to external pressures, the capability of the university and its BAUs to respond to the perceived pressures; the levels of structural integration of the introduced BMTs with the core values, norms, practices and policies of the university and its BAUs as well as the extent of institutionalisation of the new programmes and intervention activities.

According to Oliver (1991), the institutional environmental pressures corresponding with the resource dependence and neo-institutional theories, including the organisational responses, can be analysed in light of their *cause*, *content*, *constituents*, *control* and *context*. Therefore, this study expects the organisational response of Mekelle University (MU) and its BAUs to BMT reforms to depend on their perceptions of external factors: why MU and its BAUs are being pressured (*cause*), who is exerting the pressures (*constituents*), what the pressures consist of or what MU and its BAUs are expected to perform (*content*), how and by what means are the pressures being exerted (*control*) and the environmental condition of MU and its BAUs where the pressures are exerted (*context*). The combination of both theories might thus shed light on how organisational responses to external pressures are conditioned by the existing objective resource dependency and the way HEIs perceive their institutional environments as well as how they act to control and avoid dependencies to ensure institutional autonomy (Gornitzka 1999; Maassen & Gornitzka 1999).

Findings and discussion

One of the central features of the resource dependence and neo-institutional theories is the impact of the relationship between the external environment and the organisation in shaping organisational responses to pressures from the technical and institutional environments (see Gornitzka 1999; Oliver 1991; Siegel 2006). As a result, two types of environments were found to be important in this study, namely the technical and institutional environments that are embedded in resource dependence and neo-institutional theories, respectively, in shaping the perception of the respondents in the adoption of BMT processes in the case university and its BAUs. The technical environment refers to the quest for efficiency and competition as critical factors for the survival of the university. This means that the need for sustainable financial resources, materials and markets are expected to dictate the responses of the case university and its BAUs to external environmental pressures. Moreover,

an institutional environment was conceptualised as the constellation of BMT-related rules, regulations, pressures, demands, requirements and expectations that mainly emanate from the external environment, in this case, the government and other major stakeholders.

The study shows that as the reform processes of public HEIs in Ethiopia are dictated by the government; the Ethiopian government plays a strong role in both the technical and institutional environments. The role of the government in the technical environment was largely exhibited as the major, if not the sole, entity in funding the case university on one hand, and as the main consumer of the university's products and services on the other hand. Therefore, all respondents shared the view that this gave the government the leverage to force universities to implement whatever reforms it deemed important, with no room for deviation. The study also revealed that in the institutional environment, the government and its subsidiary bodies were formally and informally involved in setting the rules of the game, which included stipulating the laws, rules, structures and management processes and organisational cultures inside the university, which guided the adoption of the BMTs.

For instance, the case study results showed that that there were notable negative perceptions about the relevance of BMTs to the MU university context and its BAUs. Three important factors were identified as possible sources of these negative perceptions by the members of the university towards the BMTs. These were the mismatch between the nature of the BMTs and the basic characteristics of the university, the source of and approach to implementing the reform tools and the means of institutionalising them. The respondents shared the view that despite the fact that there seemed to be a need inside MU to transform the university by introducing self-initiated reforms, all the BMTs were initiated by the government and were sent to the university as obligatory reform tools to be implemented at any cost. Moreover, the evidence showed that the approaches taken to institutionalise the reform tools at all levels of the university were guided more by a coercive process than by normative tools.

Therefore, the common view amongst the respondents was that the adoption of the BMTs was not guided by the need for financial stability, but rather for reasons of legitimacy. This result may be explained by the fact that the funding mechanism of the Ethiopian higher education system is not performance based. Documents showed that public universities in Ethiopia are fully funded by the government and that the funding scheme is not explicitly designed by the performance of universities over the year, but mainly by the number of students, academic programmes and academic and administrative staff they have. This means that all public universities, irrespective of their efficiency and effectiveness, are "financially stable" and do not have to compete with each other to secure funding from the government.

Moreover, as BMTs are largely perceived by the academic community as inappropriate to the university's values and norms, and coupled with the coercive approach of implementation, MU and its BAUs symbolically complied with the reform tools in order to ensure survival and legitimacy, not to improve efficiency and effectiveness, as envisaged by those who mandated the implementation of the tools. This corroborates the position that the conformity of an organisation to institutional rules and requirements is affected by coercive, normative and mimetic processes (DiMaggio & Powell 1983) and that compliance is undertaken for pragmatic reasons or the active agency of the organisation (Kondra & Hinings 1998; Oliver 1991). This means that organisational strategies to comply with new institutional rules and requirements are not necessarily selected or undertaken only for issues of efficiency, but also for increasing their legitimacy, resources and capacity for survival (DiMaggio & Powell 1991; Meyer & Rowan 1977) as well as to protect the university's inside core (Diogo et al. 2015).

Finally, this study indicates that most of the interventions and programmes created by the university following the adoption of BMTs are not structurally integrated with the values, norms, practices and policies of the university and its BAUs. In other words, the results demonstrate that there is little evidence to support the government and the university's claims that the adoption of these

BMTs brought about radical organisational changes to the work processes of the university and its BAUs.

Conclusion

In general, therefore, it seems that the leadership of the case university is at a crossroads, keeping the right balance between the values and norms of academics and external pressures to adopt BMTs as tools for radical organisational change, in general, and as instruments for efficiency and effectiveness in particular. Therefore, the study recommends that major academic reform initiatives should be internally driven rather than exogenously imposed. The university should have meaningful institutional autonomy to assess its internal and external situations and to come up with relevant reform agendas that take into account its basic characteristics and the external environmental demands.

Moreover, it can be safely concluded that the use of resource dependence and neo-institutional theories in studying organisational responses to external pressures, in general, and the relationship between the technical and institutional environment in shaping the perception and responses of HEIs towards external pressures, in particular, is indeed important. However, the context of the study should be taken seriously when using resource dependence and neo-institutional theories, in general, and resource dependence theory, in particular. In other words, in some national higher education systems (especially in developing countries where universities are completely dependent on government funding; where universities do not necessarily have to be efficient and effective to influence government decisions in the funding allocation process and where universities do not have to compete with other universities to secure their annual budget), resource dependency theory should largely be used in explaining power relationships or interest coalitions between the government and universities rather than in terms of "efficiency" and "financial" factors in studying the impact of institutional and technical environments in higher education reforms.

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Closing words:
Theory, methodology and the future of higher education research

As an interdisciplinary field of study, higher education research is still underdeveloped in terms of theoretical matureness and rigour. For this reason, in their editorial introduction note to the first volume of "Theory and Method in Higher Education Research" (2013), Jeroen Huisman and Malcolm Tight emphasised that higher education research still should make greater use of theoretical insights and frameworks from the social sciences. But at the same time, especially experienced higher education researchers should not only settle for "borrowing" theories from social sciences (and other disciplines) without an explicit aim to "return" new frameworks, models, approaches or theories, which could be utilised and tested beyond the context of higher education. Actually, this would be the way how early research in higher education contributed, for instance, the field organisational studies. Major developments in organisation studies, like resource dependence theory, the "garbage can" decision-making model, and the idea of a "loosely coupled" organisation structure emerged from the research conducted in the context of schools and universities (Bastedo 2012; Kivistö & Pekkola 2017).

As has been pointed out by Kivistö and Pekkola (2017), the future of higher education research is directed by approaches, methods, and the general orientation selected by the contemporary higher education researchers. As a junior researchers, doctoral graduates and their dissertations play an important role in shaping the field. By applying new models, theories and methodologies (or old models, theories or methodologies in a new way) they contribute the field of study in various ways. These contributions will benefit not only higher education research community, but also other fields and disciplines by offering insights on the adaptability of the borrowed models or methodologies in the new context of application.

As a compilation of various theoretical and methodological approaches to higher education, this book has offered a demonstration of how a range of methodological choices, theoretical approaches and conceptualisations from other disciplines can be successfully applied and utilised in the context of higher education. We hope that giving closer attention on issues of theory and method, already at the stage of writing doctoral dissertations, will also in the future guarantee the vitality of higher education research as an interdisciplinary field of study.

The Editors

Elias Pekkola & Jussi Kivistö & Vuokko Kohtamäki & Yuzhuo Cai & Anu Lyytinen (Eds.)

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Elias Pekkola & Jussi Kivistö & Vuokko Kohtamäki &
Yuzhuo Cai & Anu Lyytinen (Eds.)

Authors

Dr. James Anyan, postdoctoral researcher, University of Helsinki

Prof. Elizabeth Balbachevsky, associate professor, University of São Paulo (USP)

Dr. Yuzhuo Cai, docent, University lecturer, University of Tampere

Dr. Teresa Carvalho, assistant professor, University of Aveiro and CIPES (Center for Research in Higher Education Policies)

Dr. Pascal Doh, post-doctoral researcher, University of Turku

Prof. Jan-Erik Johanson, University of Tampere

Prof. Jussi Kivistö, University of Tampere

Dr. Vuokko Kohtamäki, docent, university lecturer, University of Tampere

Dr. Anu Lyytinen, university lecturer, University of Tampere

Dr. Yohannes Mehari, university instructor, project manager, University of Tampere

Dr. Johanna Moisio, executive director, The Finnish Union of University Researchers and Teachers

Dr. Timo Näppilä, postdoctoral researcher, Lempäälä

Dr. Terhi Nokkala, docent, senior researcher, University of Jyväskylä

Dr. Elias Pekkola, docent, professor (act.), University of Tampere

Dr. Taina Saarinen, docent, senior researcher, University of Jyväskylä

Ms. Taru Siekkinen, researcher, University of Jyväskylä

Dr. Johanna Vuori, docent, principal lecturer, Haaga-Helia University of Applied Sciences

Elias Pekkola & Jussi Kivistö & Vuokko Kohtamäki &
Yuzhuo Cai & Anu Lyytinen (Eds.)

This book focuses on how methodological choices, theoretical approaches and conceptualisation can lead the work of researchers interested in higher education. As a reader compiled of independent chapters, the book is particularly aimed at PhD students in the field of higher education administration. It provides examples on the application of selected mainstream theory traditions in the social sciences and management studies to the context of higher education.

The book consists of three parts: I Methodological Approaches – examples for early career researchers; II Conceptual Approaches Utilised to Understanding University Transformation; and III Scholarly Traditions Applied to Understand Universities and Academic Work.

The book is a tribute to Professor Emeritus Seppo Hölttä due to his commitment to the development of the field of higher education administration and his indefatigable work in the management and transformation of higher education. The lead authors of the chapters are PhD graduates influenced by the academic heritage of Professor Hölttä.