

TRAINING FOR EXCELLENCE? DIVERSITY AND DIFFERENTIATION IN THE DOCTORATE IN COMMUNICATION SCIENCES IN SWITZERLAND

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1 Abstract

The doctorate has become a topic of interest for policy makers and society, and it faces increased diversity in requirements both from inside and outside academia. Doctoral degree holders embark for a large variety of future careers. In some national and disciplinary contexts, new forms of (professional) doctorates emerge. In this study, we look at a case where the doctorate is not officially differentiated: Communication sciences in Switzerland, a divergent and rural field, which is reflected also in the doctorate. Based on our analysis of regulations and interviews with doctoral students and supervisors, we identify four different models of the doctorate in this field: we call them externals, workers, multifunctionals and academics. We put them in the wider context of the doctorate, including disciplinary and linguistic diversity, but also individual characteristics of the participating actors. Some hypotheses on possible causes and effects are made.

1 The doctorate: serving different masters

Higher education systems have received increasing attention over the last decades, both in research as well as in policy discussion (see for example OECD 1987; Neave 1993; Enders 1999; Kivinen et al. 1999). Research and innovation, the production and transfer of knowledge are seen as main assets of a *knowledge society*, a nation's competitiveness depends on them. The number of students on all levels has increased, and so have requirements from society and economy towards higher education, its institutions and the academic profession.

In this picture, the doctorate stands at a particular, complex position: at the crossroads between higher education and society. Originally – and in some national settings still today – rather conceived as the moment of reproduction of the academic profession, it nowadays serves several masters. The doctorate is generally considered a *sine qua non* for an academic career, but doctoral degree holders embark for a large variety of future careers that go beyond the academic context. As the higher education system in general, it is also confronted with increasingly diverse requirements, both within the academic community – the academic profession being increasingly heterogeneous and fulfilling a wide range of requirements in teaching, research and community services – and from society and economy.

In the higher education literature, a possible answer to this variety of requirements is seen in adaptation through differentiation. Diversity in the higher education system is seen as answering the needs of society and individuals, but also of the higher education institutions themselves (Meek et al. 2000; van Vught 2007).

A differentiation process can also be observed in the doctorate. While disciplinary and national differences are widely acknowledged and not a new characteristic of this degree,

recently new forms of doctoral training are emerging, especially in the area of professional training. This official diversity, however, exists so far only in some countries and disciplines.

Given the variety of requirements from different stakeholders that are put on the doctorate, however, it is likely that differentiation in the doctorate occurs also in implicit ways, and thus also in contexts where officially only one type of doctoral degree exists. How this implicit diversity looks like, thus what models can be identified and how they interact with the context and its requirements are the central questions we address in this paper. In order to do so, we look at a specific case that is, itself, already characterised by a high degree of diversity: Communication sciences in Switzerland – a divergent, rural field with blurry boundaries in a country whose higher education system is characterised by a certain degree of autonomy on the regional level.

The paper is structured as follows: in the next section, the topic of diversity and differentiation is addressed. Section 3 presents the methodology and the sample of our study. In section 4, diversity in the doctorate in Swiss Communication sciences is addressed, while section 5 links this diversity to the broader context. We close this contribution with some hypotheses on possible causes and effects of differentiation and some concluding remarks.

2 Diversity and differentiation

Diversity – “the variety of entities within a system” (van Vught 2007: 2), thus a static situation at a specific moment in time) – and differentiation – the “process in which new entities in a system emerge” (van Vught 2007: 2) - of higher education systems are recurrent topics in the higher education literature, especially regarding steering and structure of higher education systems (see for example Huisman 1995; Meek et al. 1996; Meek et al. 2000). Differentiation and diversity are claimed to affect “nearly every aspect of higher education” (Meek et al. 2000: 1) and are generally seen as positive features of higher education systems, allowing to meet the needs and requirements from students, the higher education institutions, interest groups, labour market and society in general. Diversity is seen as connected to the higher education system’s management and structure on a governmental level. Market conditions are often introduced with the aim of enhancing diversity. Overall, however, there is no consensus neither whether marketisation really enhances diversity nor whether diversity in higher education systems is generally increasing or rather decreasing, thus whether a process of differentiation or of dedifferentiation is going on (Meek et al. 2000; Neave 2000; van Vught 2007).

Diversity can be observed on different levels. A first distinction to be made is the one between external and internal diversity of higher education systems, thus diversity between or within higher education institutions (van Vught 2007). Other types of diversity that are observed include systemic, structural, programmatic, procedural, reputational, constituential and values and climate diversity (Huisman 1995; van Vught 2007). Diversity can be institutionalised, but differentiation can also occur in an implicit way. Clark (1996: 22f.) characterises the situation where a national higher education system is officially unified and all institutions are declared to be alike, but trends as decentralization and differentiation of funding lead, in practice, to external diversity, with the concepts of “nominal integration” and “operational differentiation”.

When looking at the doctorate, an twofold situation emerges: the doctorate can be seen as an element of differentiation of higher education institutions – in Switzerland, for example, not all higher education institutions have the right to award doctoral degrees, thus it becomes a distinctive feature of certain types of institutions – but the doctorate itself is also subject to a broad range of requirements and developments, and thus characterised by diversity.

It is well known that the doctorate differs among disciplinary areas and national higher education systems (see for example Ben-David 1992; Burgess 1994; Clark 1995; Kivinen et al. 1999; Parry 2007; Powell and Green 2007). Recently, however, in some national and disciplinary contexts, new forms of doctorates start emerging (Scott et al. 2004; Green and Powell 2005; Kehm 2005; Boud and Tennant 2006; Metcalfe 2006), and thus diversity within

a field and national context is institutionalised on an official level. Examples include the Doctor of Engineering (EngD), the New Route PhD (a degree mainly for those planning a career in commerce or industry, where approximately 40 percent consists in formal coursework) or other forms of professional doctorates, for example in education or business administration in the United Kingdom (Taylor 2004) or executive doctorates in areas as education or management in the U.S. (Altbach 2004). Also in other countries, tendencies towards the implementation of professional doctorates and/or increased collaboration between the university and the industry sectors are observed (see for example Pechar (2004) on Austria, de Weert (2004) on the Netherlands). Besides this “diversity in the form of provision”, however, there is also “diversity within forms of provision” and diversity in the population of doctoral students (Boud and Tennant 2006: 294). Thus, besides the official distinction between types of doctorates, also the organisation of doctoral studies, for example the share of coursework, or the type of thesis to be written, vary.

These types of diversity are usually visible in official documents. In our study, we look at the doctorate from the point of view of the participating actors, the doctoral students and supervisors, and are interested in implicit forms of diversity and differentiation in the doctorate.

3 Methodology and sample

This study is based on a multi-method approach involving different data sources in order to look at diversity and differentiation from different perspectives. These include as background information an in-depth analysis of the social, institutional and cognitive structure of Communication sciences in Switzerland (Probst and Lepori 2007; Lepori and Probst 2008) which has shown a disciplinary and linguistic division of the field.

The focus in the paper at hand lies on the empirical part of the overall study interested directly in the doctorate. The doctorate is approached from the perspective of the institutions and of the participating actors. The institutional perspective is covered by an analysis of doctoral regulations of all Swiss universities currently training doctoral students in the field, while the individual perspective is analysed through interviews with doctoral students (41 individuals) and supervisors (14 individuals). These interviews include mainly qualitative information, but some quantitative data was retrieved as well.

The sample covers the diversity of the field, but also allows for some comparability by including doctoral students in similar situations (for example working at the same institute or chair or in similar working situations) as well as supervisors and doctoral students working together. In the sample of doctoral students (23 female and 18 male, average age 30.1 years), linguistic diversity is reflected: the first language is German or Swiss German for 21 doctoral students (one is bilingual with Swiss German and English), Italian in 15 cases, French in three and Spanish in two cases. 24 doctoral students have started their doctorate immediately after their first degree, the others between 2 and 15 years after the conclusion of their previous studies. The sample includes doctoral students in different stages of the doctorate, from those that have just taken the decision to do a doctorate and started it a few months before the interviews to those who had already handed in their final thesis. 23 doctoral students in the sample have their main study background (major) in Communication sciences, 8 have a minor in the field. Doctoral students in the sample cover a broad range of research topics, with only around one fourth of them working on the two topic areas that have been mentioned most: organisational communication and mass communication. Thus, the sample reflects both diversity in student population as well as diversity in the disciplinary field.

The 14 interviewed supervisors are employed at five different universities in all three linguistic regions. They supervise between 2 and 12 doctoral students each, for a total of 79 doctoral students. 52 of these supervised doctoral students are employed by the university where they are enrolled for the doctorate, usually in the same unit as their supervisor. Five of the 14 interviewed supervisors have a background (doctorate) in Communication sciences,

while others have their disciplinary backgrounds in social sciences, philosophy, economics, engineering, psychology and history.

4 Diversity in the Swiss Communication doctorate

Communication sciences can be described as a divergent and rural (Becher and Trowler 2001) field with close links to neighbouring fields of study (see Probst and Lepori 2007; Lepori and Probst 2008). The field covers basic and applied topics, and research projects are often mandated by external partners. Many interesting job opportunities for graduates as well as doctoral degree holders are outside academia, for example in the media sector, or in communication departments of private companies and public administration. To do a doctorate in Communication sciences is also a possibility to reflect professional practices – and so there are doctoral students with several years of professional experience alongside people just having received their first university degree.

In the Swiss highly diversified higher education system (see Perellon 2003), official differentiation of the doctorate through the introduction of doctorates more oriented towards professional training would be a paradox: as professional training is seen as one of the main tasks of the universities of applied sciences, and the allowance to award doctoral degrees is a differentiating feature of universities, to implement professional doctorates would mean to undermine distinctive features of the system. So there is no explicit differentiation in the doctorate, but given the universities' autonomy, there is no common model either. Coordination among the universities is done by consensus, through the Rector's Conference CRUS (Conférence des Recteurs des Universités Suisses). The CRUS recently has passed a common position paper on the doctorate, which, however, also underlines the individual responsibility of the universities. Common objectives include the development of scientific competence, of disciplinary, interdisciplinary, methodological and transversal knowledge and skills and socialisation and networking of doctoral students and other researchers (CRUS 2008), and thus remain on a rather general level and underline external diversity.

In this study, we look at operational differentiation, at implicit diversity in the doctorate in this highly diversified context. When analysing diversity and differentiation, a first question to take into account are the dimensions to analyse. Huisman (2000) underlines the importance of selecting the variables according to the aims of a study, but also according to practical considerations such as the availability and relevance of data. There is no unique measure of diversity and differentiation.

As the doctorate is a period that prepares for future roles, a socialisation process, we decided to take the integration of doctoral students both in an organisational and in a scientific context as dimensions for classifying the doctorate. This proved to be a viable solution also when analysing the data at hand. The two dimensions were constructed as follows:

Regarding *organisational integration*, a distinction between internal and external doctoral students was made – between those doctoral students who are employed by a higher education institution and those who are not, and thus are working for another organisation, doing their doctorate on a scholarship, or living on private resources. The sample – 6 externals, 35 internals – reflects the general situation in Switzerland, where most doctoral students are employed by higher education institutions.

Integration in the scientific community was measured through active participation in it (which showed also to be connected to the doctoral students' feelings of belonging to a scientific community): the number of conference presentations and publications was counted. As doctoral students are in different years of their doctorate, this number was divided by the years, thus a measure of scientific output per year emerged. Doctoral students were then grouped into four groups according to output per year: *inactives* with no scientific output at all (13 doctoral students), *slightly actives* with a medium of less than one output per year (9 doctoral students, 7 of them with a maximum of one output every two years), *actives* with

one to less than two outputs per year (10 doctoral students), and *very actives* with two and more papers and/or presentations per year (9 doctoral students).

These dimensions allowed to group doctoral students in four categories: *externals* (6 doctoral students), not employed by the university and mostly *inactive* (one of them is slightly active); *workers* (8), employed by a higher education institution and *inactive*; *multifunctionals* (18), employed by a higher education institution and *slightly active* or *active*; and *academics* (9), *very active* in the scientific community and employed by a higher education institution. There are no external doctoral students in the sample that are *active* or *very active* participants in a scientific community.

Table 1 gives an overview on the four models and their basic characteristics. Some comments on the single categories and some characteristics follow below. These models are descriptions of typical situations – obviously, every single case shows its own specificities that are not covered by such a broad characterisation.

	Externals (n=6)	Workers (n=8)	Multifunctionals (n=18)	Academics (n=9)
<i>employment situation</i>	external	internal; main tasks in teaching (3), research (3), or research and teaching (2)	internal; main tasks in research and teaching (11) or teaching (6), 1 staff	internal; main tasks in research and teaching (4), teaching (3) and research (2)
<i>scientific output per year</i>	inactives (0 publ/conf per year) or slightly actives (<1, one individual)	inactives (0)	slightly actives (<1) and actives (1-<2)	very actives (2+)
<i>local or international output</i>	n/a	n/a	9 local, 6 international, 3 local and international	7 local and international, 1 local, 1 international
<i>language of publications</i>	n/a	n/a	English (11), local language and English (4), local language (3)	English and local language or mother tongue (8), English (1)
<i>language of dissertation</i>	local language	local language (1 English)	local language (10: German, Italian or French) or English (7), 1 undecided	local language (5, all German) or English (4)
<i>co-authorship</i>	n/a	n/a	12 have co-authors, only in a few cases supervisors	all have co-authors, most often including supervisor
<i>stay abroad (done/planned)</i>	1 done	1 planned	6 planned, 3 done	2 done, 1 considers possibility
<i>contacts to other researchers</i>	most often internal; external contacts to professors of previous university	most often at home university, residential and visiting researchers	most often internal at home university (residential and visiting), some also external	most often external contacts

<i>plans for the future (academic or non-academic)</i>	2 undecided, 2 non-academic, 2 would like to combine academic and non-academic	4 undecided, 2 non-academic, 1 academic, 1 would like to combine both	8 academic, 5 undecided, 5 non-academic	5 academic (2 of them would like to add also some non-academic parts), 4 undecided
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Table 1: Models and their characteristics

4.1 Four models

Externals

One thing most *externals* refer to is that they do not feel like being part of a local academic community or organisation, they rather feel excluded. They also are not part of a broader scientific community – they rarely participate in conferences, and only one external in the sample has done publications so far. All his publications, however, are single-authored, thus there is no visible collaboration with other researchers. This is also mentioned in the interviews: *externals* tell that they would like to do publications, but that it's hard to do so without guidance. They have to discover themselves where they could publish, which conferences they could attend; and they are not encouraged to do so. Equally, information does not naturally flow: one doctoral student in the sample for example told that he found out coincidentally that his supervisor was about to have a sabbatical. The challenges *externals* encounters were also mentioned by supervisors, some of them even clearly stating that they prefer to work with internal doctoral students. One supervisor called it a “two-tiered society”, where internal doctoral students are clearly privileged.

In the sample, there are two distinct situations of *externals*: those who started their doctorate as *externals*, and those who left their job at the university during the doctorate. The latter was the case for two doctoral students who were not satisfied with the situation at the university, and also decided that their future career will be outside the academic environment, and thus found another type of employment. Doctoral students who are *externals* from the beginning on report that they would like to be more integrated in the university, and they tell that they have tried to find a position at the university, but did not succeed yet. One doctoral student with a scholarship for the doctorate reported that he¹ is doing some work for the university from time to time – and it seems that he feels much less lost than the others.

Workers

Workers are doctoral students who do not have publications or presentations at conferences. Doctoral students in this group do not actively participate in the scientific community, but they do not seem to look for it either.

Regarding *workers*, there is a methodological problem caused by the chosen dimensions and the diversity in the sample: *workers* are by definition doctoral students without scientific output. In our sample, we find three doctoral students in this model that are still in their first year of doctorate; they might become active later on, and thus probably change model. One doctoral student in this model is in the second year, three are in their fourth year and one is in the sixth year of doctorate.

Multifunctionals

The largest group in our sample is formed by the *multifunctionals*: doctoral students that are employed by a university, strongly integrated locally and providing a lot of institutional work, but that participate also, to a certain extent, in a broader scientific community. Several doctoral students in this group are employed, at least partially, on research projects that provide synergies with their doctorate.

One could say that *multifunctionals* are those doctoral students where an implicit contract between university and doctoral student is fulfilled: the university receives workforce that

¹ In order to enhance anonymity, I use the male form for all individuals in the sample

guarantees its functioning, and doctoral students receive funding of their livelihood and training. They have the chance to prepare themselves for their future career in- or outside academia, and enjoy at least a certain extent of participation in a scientific community.

Academics

This fourth category consists of doctoral students that are highly integrated in an international scientific community. Contemporaneously, they are also integrated at the institutional level, some of them, however, less intensively than most of the *multifunctionals* and *workers*.

What characterises *academics* is a combination of local and international integration. Their local integration consists both in organisational integration – they participate in research and/or teaching activities – and in scientific integration – they publish together with collaborators and their supervisor –, while their international integration consists often in participation in a specialised scientific community.

4.2 Some comments on characteristics

Regarding the *employment situation*, it is interesting to note that *multifunctionals* most often fulfil tasks in both research and teaching, and nearly all of them include teaching assistantship in their daily work. *Workers* with main tasks only in research are all in the first or second year of their doctorate.

A distinction between *multifunctionals* and *academics* applies when looking at the range of their scientific output: while the former are most often active either on a local level (thus publishing in journals published in the same linguistic area and participating in conferences in this area) or on an international level, the latter often combine both levels and thus tend to be active in more than one linguistic community of reference. This is reflected also in the *language of publications*. The distinction, however, might also be influenced by the fact that *multifunctionals* have, by definition, less publications than *academics*. Three *academics* show an interesting pattern when looking more closely at the publication channels: at the local level, they are active in the field of Communication sciences, thus publishing in general Communication sciences journals, such as the journal of the Swiss Association of Communication and Media Research, while on the international level, they refer to a more specialised community, presenting at specialised conferences and publishing in more focussed journals.

Regarding the *language of the dissertation*, it comes clear that those who do not actively participate in a scientific community tend to write their doctoral thesis in the local language. Doctoral students intending to write their dissertation in English also have publications in English, but not all doctoral students with publications in English write their dissertation in this language. Here, too, an interesting distinction applies: Among the *academics*, for those five doctoral students writing their dissertation in the local language, the local language is German: a language with a large community in Communication sciences. Among the ten *multifunctionals* writing in the local language, this local language is German only in four cases, while in 5 it's Italian, in one French.

Around two third of the *multifunctionals* and all *academics* have co-authors at least for some of their publications. While among the *multifunctionals* only in a few cases the supervisor is among the co-authors, all but two *academics* publish together with their supervisor. The two exceptions are particular cases: one of them is doing his doctorate at another university than where he is employed, and the other one is employed simultaneously in a research laboratory of a company and by the university, and thus has publications with the head of the research laboratory.

A possibility for broadening one's scientific community is found in stays abroad. In Switzerland, the National Science Foundation grants "fellowships for prospective researchers" with which doctoral students can stay at another research institute for a period between 6 and 24 months. Several supervisors and doctoral students in the sample refer to this possibility. Stays abroad are most common among *multifunctionals*: half of them has

been on a stay abroad or plans to do so during the doctorate. Among the *academics*, only two have been abroad for a certain period, and one considers it a possibility for the final phase of his doctorate. Out of the remaining six *academics*, one regularly stays at other places for shorter visits, while the remaining five all have done their undergraduate studies at another university than where they are doing their doctorate, most often not in Switzerland. One of the *externals* has spent a period at another university – he, however, has a scholarship from his government (another European country) for doing his doctorate, and thus instead of staying all the time at the same place he spent some months in again another European country.

There are also other possibilities for contacts with senior researchers – for example at the home university, or at conferences and summer schools. Some doctoral students also report that they directly contacted researchers in the field and got an answer. One supervisor underlines that this is one of the advantages of being a doctoral student: the role allows to get in contact with senior researchers, who usually are supportive and interested in the doctoral student's projects and questions. Among all groups of doctoral students, contacts with other senior researchers besides the supervisor are frequent – in each group, only two doctoral students did not report of any such contacts. Among the *externals*, *workers* and *multifunctionals*, however, these contacts are most often at the home university, with residential or visiting researchers, while *academics* tend to have more external contacts.

Overall, some internal and external diversity in the doctorate is visible. It is now interesting to understand how these models interact with the wider context of the doctorate, but also with individual characteristics of the participating actors.

5 The models in the wider context

Given the methodology and sample of the study, our data does not allow making causal assumptions, for example whether doctoral students from one linguistic region are more likely to be found in a specific model or to what extent the meaning the individuals attribute to the doctorate influences on their situation and to what extent the situation shapes the attributed meaning. This should be kept in mind when reading the following paragraphs presenting some observations on the links between the models and the broader context as well as the individual dimension.

5.1 *Disciplinary, linguistic, institutional and organisational diversity*

At first sight, disciplinary, linguistic and institutional factors do not seem to have an influence on the situation of the doctoral student. In all four models, doctoral students from different places and linguistic regions, and with different research topics are found. When looking more closely at the data, however, some details appear.

In the normative context of the Swiss Communication doctorate, regional differences and current trends visible in the international discussion emerge: in the French speaking part of Switzerland, the doctorate includes the preliminary phase of the DEA, while in the German speaking part, doctorates are generally rather under-regulated. In the only Italian-speaking university yearly reports, an element that is also part of the Italian doctorate, are requested; thus, on a normative level there is some procedural diversity between the linguistic regions.

Regarding the organisational setting of the doctorate, a general trend towards the implementation of organised training is visible in the regulations (for example mandatory coursework, limited duration), but also in the interviews – supervisors from one place for example say that their university is currently discussing on the introduction of doctoral schools. At some places, doctoral schools are already established, at different levels: in Basel, there is a graduate school funded by the Swiss National Science Foundation (a so-called ProDoc) that includes two doctoral students in the sample, in Geneva, all doctoral students in Communication sciences, and thus three in the sample, are part of a graduate school at the departmental level, and in Lugano, three doctoral students from one institute report that they have an internal graduate school. Between the interviews with doctoral

students and those with supervisors, two more ProDocs in the field have been granted and are by now established, including institutes from Lugano and Zurich.

Participation in a graduate school, however, seems to have only limited influence on the model of doctorate: Doctoral students that are part of doctoral schools are mostly found among the *multifunctionals*, but also among the *externals*, and one among the *workers*. No one of the *academics* is part of a doctoral school – two of them, however, are working at the university of St. Gallen, where doctoral studies are however more similar to the U.S. model, with a clear structure of training and intermediary reports, than elsewhere. Overall, it seems that, rather than being used for differentiating the doctorate and its output, the introduction of doctoral school like structures occurs as an answer to organisational challenges, for example high numbers of doctoral students, or based on a certain external pressure.

One clear institutional difference appears regarding the language of publications and of the doctoral thesis: all doctoral students publishing only or mainly in English and those intending to write their doctoral thesis in English are enrolled at the universities of Lugano and St. Gallen – the two universities with the highest degree of English language publications also among the professors, as came clear in our analysis of the field of Communication sciences in Switzerland (Probst and Lepori 2007; Lepori and Probst 2008). The prevalence of the English language in Lugano and its absence in the German speaking part of Switzerland (with the exception of the more business-oriented university of St. Gallen) might, however, also be linked to the fact that there is a big German speaking community in the field, while the importance of the Italian language in Communication sciences is rather limited.

Doctoral students working in the area of technology tend to be employed on externally funded research projects, which entail also synergies with their doctorate. This is, however, non linked to the type of doctorate – with the exception of *externals*, doctoral students with technology-related projects are found in all groups.

Overall, contextual factors as the linguistic or thematic area seem to play a rather limited role in the shaping of the doctoral experience.

5.2 Individual characteristics

From the analysis of the interviews, it seems that more than on general disciplinary or linguistic characteristics, the form of the doctorate is connected to the individual situation, individual characteristics and representations of the participating individuals.

Meaning attributed to the doctorate

From the interviews with doctoral students, it seems that a good share of them has started a doctorate without really knowing what they were on to, with just some fuzzy ideas in mind about what expected them. Also, only one of the doctoral students clearly stated that he decided to do a doctorate because he wished to pursue an academic career. In more than a third of the cases, the supervisor had some influence on the decision to do a doctorate, or by encouraging the student to do so or by putting the idea in his head.

During the doctorate, the conception of what a doctorate is assumes shape – shape that, however, can also change. Doctoral students often refer to the doctorate as a learning experience, as a period of time they can spend on something they are interested in, as a personal challenge. Difficulties, moments of frustration and conflicts are also addressed, but generally it is seen as a positive experience. Interestingly, the doctorate as a degree is usually addressed only in a second moment. This is probably also a mechanism of self-protection: several doctoral students state that they hope, but are not convinced, that their degree will be useful on the labour market outside academia, some even fear that it will be a negative asset. This perception is generally different among supervisors: most supervisors state that a doctoral degree is a *sine qua non* for an academic career, but also useful outside academia, especially in the Swiss context (something underlined especially by supervisors from Italy, where the doctorate has virtually no value outside academia).

Plans for the future seem to be linked with the type of doctorate: People aiming at an academic career are found mainly among *academics* and *multifunctionals*. Only one of the *workers* wishes an academic career – at the moment of the interview he was rather at the beginning of his doctorate. One of the *externals* states that he would like to stay in the academic environment, but that, given his missing participation in the scientific community, he sees hardly any possibility for a scientific career, and thus would like to work rather in administrative roles. There are no *academics* that clearly prefer a non-academic career.

Thus, overall it seems that people with plans for an academic future are rather found among those that also actively participate in an academic community already during the doctorate. Now one could think that those who are not participating in an academic community do not aim at an academic career because they see that they will not be in a position to do so when finishing their doctorate, and therefore probably are unhappy about their decision to do a doctorate. This, however, does not seem to hold true. When asked whether they would again decide for doing a doctorate, a vast majority of the respondents answers with yes, among them also people clearly aiming at a non academic career. Thus, also among the doctoral students, the doctorate is perceived as something that allows and is useful both for a future career inside and outside academia.

It is also interesting to compare the doctoral students' plans for the future with what their supervisors state about future careers of doctoral degree holders. When asked about the concrete situation of their doctoral students, two supervisors state that their experience shows that most of their doctoral students will go outside academia in the future. I have interviewed three doctoral students of one of them, and they all see their future outside academia. In the other case, the only interviewed doctoral student was undecided at the moment of the interview. Two supervisors considering an academic career the main reason for doing a doctorate plus two other supervisors observe that most of their doctoral students end up in an academic career. In total, five doctoral students supervised by these four supervisors have been interviewed – three of them prefer an academic career, one would like to combine both and one clearly states that he prefers to leave the academic environment. The remaining eight supervisors report that among their doctoral students – both past and current – both types of careers are frequent, which is also reflected in the answers of the doctoral students. Thus, it seems that at least to a certain extent the perceptions of the supervisors and their doctoral students match.

Supervision

Research supervision is “at the heart of the doctoral process” (Burgess 1994: 6). Thus, the supervisor is seen as having an important role in the doctorate. This is generally recognised in our interviews – however, there are also situations where explicit or implicit conflicts between doctoral students and supervisors emerge. This is the case when the role a doctoral student attributes to a supervisor does not match with the supervisor's perception – or with his possibilities, as is shown by the example of two supervisors in the sample stating that their supervision is scarce because they don't have the resources (time and money) to improve it.

The types of relationship between doctoral students and supervisors vary. This is visible both in the accounts of doctoral students and supervisors. There are supervisors who tell that they guide their doctoral students very closely, they plan the doctorates step by step and seem to have it always under control, while others see the responsibility for the doctorate mainly with the doctoral student, who should therefore act independently. There are many middle ways between these two extremes. When talking about the German word for supervisor, *Doktorvater*, one supervisor said:

Doktorvater – let's call it like that kiddingly, I don't share this diction too much because it's a little paternalistic. [...] For the younger [doctoral students] yes, I am somewhat still Doktorvater, then I become a senior colleague [...] but in the end I am a colleague, neither more nor less.

But also the doctoral students' ideas about the role of the supervisor vary. They range from those who wish very close guidance to those who see themselves as rather independent and

the supervisor rather in a formal role. Conflicts and criticism emerge where the two perceptions differ too much.

It seems that among *academics*, colleague-like supervision is frequent. This is also expressed in publications co-authored by doctoral students and supervisors. Collaboration is usually strong, and often regards also projects besides the doctorate, but strongly linked to it. However, there are also exceptions – there is one *academic* in the sample who meets his supervisor only twice a year for collaborative meetings with other doctoral students. In this case, however, the doctoral student already worked on research projects for several years before starting the doctorate. He also states that, from what he has done before, he rather feels like a senior researcher, and that people he meets at conferences are often astonished when he says that he does not yet have the formal qualification, the doctoral degree.

As *workers* often work as assistants in the area of teaching, they usually have regular meetings with their supervisor, who is most often also their boss. These meetings, however, often concern work-related things and not the doctorate. When they concern the doctorate, however, they only regard the doctorate as such and are not about a broader integration of the doctoral student in a scientific community, thus for example about publications, conference participations or networking.

Some of the interviewed doctoral students have the same supervisor, which allows comparing their situations. One clear example is given by a situation of three doctoral students working with the same supervisor, all originally employed by his institute. Two of them have left the institute and are now employed outside. From their accounts, it seems that there were some problems at the institute, mainly regarding work overload and restricted resources, and that supervision does not meet their expectations. All three doctoral students (the third is a *worker*) see their future outside academia. The supervisor himself states that his supervision is not ideal, for lack of resources. Also in other cases, doctoral students of the same supervisor tend to be in similar situations. Only in the case of one supervisor, the three interviewed doctoral students are part of three different groups – a *worker*, a *multifunctional* and an *academic*. This supervisor, however, states that according to him a doctorate should prepare for different types of careers. Additionally, the worker (who was in an early phase of his doctorate) informed us soon after the interview that he had decided to abandon the doctorate. Even though it seems that supervisors tend to supervise doctoral students in similar situations, also individual differences appear – for example in the quality of supervision perceived by doctoral students, or in the frequency of supervision meetings.

6 Some hypotheses about crucial moments and decisions

This analysis shows that the doctorate in Communication sciences in Switzerland indeed, as hypothesised, shows some diversity. Our data does not allow making assumptions about causes and effects, but, however, some observations regarding possible influences emerge. Some of them are presented in this section.

Doctoral students often start their doctorate without a clear idea, neither about the process nor about the use of a doctorate. Rather often, they slip into a doctorate because they are offered the possibility to do so, and in a few cases the assistant position (which entails doing a doctorate) is even chosen because no other positions are available. Doctoral students build an idea about what a doctorate is during the process – and it seems that this idea is, at least to a certain extent, also shaped by the situation of the doctoral student and by his supervisor's perception of the doctorate. Our data shows that perceptions of doctoral students and their supervisors, for example regarding plans for the future, often match. As doctoral students usually do not have any previous experience of doing a doctorate and know about it only by hearsay, it seems likely that the person that is co-responsible for the process, the supervisor, shapes the doctoral student's perception of it.

Supervision seems to be a critical element in the doctoral process. There is, however, no agreement on what ideal supervision is. It seems that supervision is judged as good by the doctoral student when the supervisor corresponds to the role the doctoral student expects

him to have – this expected role, however, varies from close supervision to nearly not existing supervision. How supervision looks like seems to depend heavily on the supervisor's perception of good supervision – which, also, varies from close guidance to a situation where the responsibility is seen with the student. A few supervisors are self-critical about their supervision – most often they wish to have more time to dedicate to their doctoral students' projects.

Given the importance of supervision, the selection of the “right” supervisor seems to be a crucial moment. Our interviews show, however, that this selection often happens rather by chance or based on content-related aspects, but not regarding supervision as such (see also Rose (2003) and Bell-Ellison & Dedrick (2008) on the “Ideal Mentor Scale”): often, supervisors approach possible candidates because they have an assistant position to fill (and thus the selection criteria probably include rather the competencies and abilities for being an assistant than for doing a doctorate), and thus recruit doctoral students among graduates. In other cases, doctoral students approach the professor; this happens on the basis of job announcements (again for assistant positions) or because the doctoral student has a clear idea about a topic for a doctorate and thus looks for a professor that works in this area.

The supervisor also seems to play a significant role regarding the entry into a scientific community – he often acts as a gatekeeper, for example by offering contacts to his own network and by putting some pressure on the doctoral students to participate in conferences. When a supervisor does not fulfil this role, two situations occur: either the doctoral student does not enter a scientific community at all, or he becomes proactive and tries to find other ways to enter the community – for example through other contacts at the home university, or by contacting people from other institutions. Doctoral students' experiences show that other senior researchers are generally open to their requests.

Also regarding supervision in general in some cases other senior researchers play an important role. When supervision through the official supervisor is scarce, some doctoral students fill the gap through contacts with other researchers – most often at the home university, but sometimes also abroad, for example during stays at other places. This leads to situations of informal supervision – and not always the official supervisor is completely informed about it. One doctoral student referred to this situation when telling that during a doctorate, “you learn to manage your supervisor”.

Participation in a scientific community seems to be influenced by the doctoral student's and the supervisor's perception of the doctorate. While some supervisors clearly ask their doctoral students to actively participate in the scientific community – sometimes with clear requirements per year of doctorate – others state that, at least in their field, it is possible to contribute to the community's discussion, and thus to publish and present at conferences, only once a doctoral student has finished his dissertation. Also, for some doctoral students participation in the scientific community seems to be part of their perception of how a doctorate should be done – be it because they see this from other doctoral students, or because it is part of their job description – while others seem not even to consider the possibility of presenting or writing a paper. Some state that they will do so once they have finished their thesis, because they first wish to finish it and see it as waste of time to write papers or because they think that only then they will be able to do so. *Externals* often miss the support from their supervisor or the integration in a local community that would facilitate active participation in the broader scientific community, also for very simple reasons as the availability of information on conferences and journals or the encouragement by the direct environment.

Thus, the integration into an organisational context, most easily obtained through employment at a higher education institution, seems to be crucial also for integration in a broader scientific community – there are no *externals* in our sample that participate actively in a scientific community. On the other hand, integration into an organisational environment can also hinder participation in a scientific community when it gets too strong: there are

doctoral students that report that they are too much overloaded with their work and thus do not have time to be more active participants in a scientific community as well.

Doctoral students' plans for the future are shaped and change during the doctorate. It is only during the doctorate that they get an insight into the academic profession – and are either attracted by it, or decide that they rather prefer a career outside. Their perception of their possibilities to pursue an academic career also seem to influence this decision – overall, doctoral students are aware that there are more doctoral degree holders than academic positions available. Some, however, clearly state from a rather early moment on that they want to do a doctorate because they need the title for their career outside academia. Their aim is to finish the doctorate as quickly as possible, and the importance of integration into a scientific community is minimal.

Several doctoral students and supervisors state that plans for the future should shape the doctoral process – and that for those wishing to stay in the academic context it is worthwhile to spend some more time on the doctorate, both to improve its quality and to enlarge one's own scientific network already during the doctorate. Thus, while the doctorate in Swiss Communication sciences is nominally integrated, operational differentiation occurs also in a conscious way.

7 Conclusions

This study has shown that even though there is no official diversity in the doctorate in Communication sciences in Switzerland, some models can be identified. Both external (between institutions) and internal (within institutions) diversity is observed. If we restrict the definition of internal diversity to diversity among doctoral students working with the same supervisor, the degree of diversity seems to be lower. Individual characteristics, perceptions and representations of the doctorate seem to have a crucial influence on the doctorate.

We have built our models based on dimensions that represent the “traditional” conception of the doctorate, its role in reproducing the academic and scientific community, and thus training for excellence in this context. Our study shows that this function is not always fulfilled. However, there are only a few doctoral students stating that they would not decide for a doctorate again now that they have the experience of doing it. The doctorate obviously fulfils also other functions, is seen as preparing also for roles outside the academic context.

This diversity, however, is not officially recognised, and therefore not reflected in the official process either. This leads to some questions regarding the efficiency of the doctorate in training for other roles. Supervision is done by a professor, thus by somebody who has shown his expertise and excellence in an academic and scientific environment. Is a supervisor also able to facilitate the development of skills and competencies that should be transferable to the non-academic environment? Dahan's study on supervision and professionalisation in doctoral schools in France (2007: 348) indicates that “it is impossible to transmit a professional identity that one does not already own.” Another question regards the evaluation of doctoral student's achievements: Is it fair or even reasonable to apply the same – academic – standards for doctorates prepared for an academic career and doctorates written with a professional future outside academia in mind, and therefore to ask doctoral students with completely different future perspectives to demonstrate the same competencies in their doctoral thesis?

In our study, we have looked at a divergent, rural (Becher and Trowler 2001) field of studies, where the people-to-problem ratio is low, there is no race for the discovery of new knowledge, as is the case in more urban fields. This structure of the field clearly has an influence on the doctorate: our sample shows that in this field, doctoral students are most often free to choose their dissertation topic – the condition usually being that it is connected to the supervisor's areas of expertise – and changes during the process are possible as well. While in convergent and urban fields doctoral students are usually strongly involved in previously defined research projects, their doctorate consists in a small element of the overall project, their tasks are clearly defined and they become specialists in a very narrow area, in

a field like Communication sciences there is more space for developing new ideas and for crossing borders to other fields. As we have seen in our sample, there is virtually no time pressure on doctoral students to finish their thesis, and they are engaged in many activities that are not directly linked to their doctorate, thus have the possibility to develop knowledge and skills in broader areas of application. In such a field, it does not seem to be possible to define a priori a single type of doctorate that suits all situations, and it is likely that doctoral degree holders embark on a variety of different careers, both inside and outside academia.

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