



Stability and Change

Policy, options, and choice in
Swedish upper secondary education

Johanna Mellén



UNIVERSITY OF
GOTHENBURG

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Abstract

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The key role Swedish upper secondary education plays in differentiating between higher education and labour market sectors has been discussed from an equality perspective over the last 60 years. Despite political incentives to reduce social biases students' programme choices, research shows a persistent impact of both home environment and gender.

This thesis is part of a long tradition of policy informing, large-scale, recruitment research. It contributes to this tradition by viewing student recruitment in the light of freedom of choice and marketization. Assuming that student recruitment patterns, educational policy, options and choice affect each other in a complex process, it also provides a possible framework for a deepened understanding of student recruitment. The thesis presents results from four separate studies exploring how upper secondary programmes are shaped in national policy documents and how students with different social backgrounds respond to the implemented options. These studies explore policy documents from 1963 to 2008 as well as Swedish national registry data for upper secondary enrolment from 1990 to 2015. The results show that students' programme choices are deeply stratified along similar lines in all cohorts, but also highlight alternative patterns that emerge in relation to organisational and societal shifts. In general, students from academic homes are continuously overrepresented in academic preparatory programmes and the distribution of students over

different programmes is deeply gendered. Moreover, the changes that do occur appear to enforce rather than to counter recruitment biases.

The findings also suggest that previous, policy informing, student recruitment research has not only had an evaluating function, but has also contributed to shaping upper secondary programmes. The analytical divides that emerge in policy papers (academic/vocational and science/social) are here shown to shape programmes that are entangled in prevailing power relations and to circumscribe students' possibilities to choose. In addition, it is shown that the aggregations of data that previous research used as representations of these divides risk hiding other differentiating processes that potentially affect young peoples' opportunities in life. Consequently, this thesis argues that social biases can be discerned and challenged by continuously revisiting the constructs that shape the understandings of what upper secondary education is – and can be.

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Tack

Nu, när jag skriver de ord som ska sätta punkt för en lång process, inser jag att det inte finns utrymme nog. Allas namn får inte plats. Ni är så oerhört många som har stannat upp en liten stund för att hjälpa, lyssna och dela med er. Tack för all vänlighet och värme, jag hoppas att jag kan få finnas på samma sätt för er.

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Chapter 1 Differentiation, difference, and distinctions

”Utbildningsystemets uppgift skulle kunna beskrivas som att motverka orättfärdig differentiering och ersätta den med en rättfärdig och att utgå från individuella differenser utan att göra skillnad.” [The function of the educational system could be described as to counter inequitable differentiation and to replace it with an equitable one, and to depart in individual differences without producing distinctions.] (Wernersson, 2013, p.9, translated by the author)

Ultimately, this thesis is about the differentiating capacities of Swedish upper secondary education. It stems from a multitude of queries concerning relations among social background factors, educational choice, options, and recruitment policies. These queries can perhaps best be phrased in relation to the separate meanings of differentiation, difference, and distinction, which Wernersson so eloquently articulates in the prelude quote. That is, first, what does equal differentiation mean in relation to upper secondary education? What are the desired outcomes of differentiation by upper secondary educational choices, how are these desires legitimised, and how do they change in relation to context? Second, one could also ask, is it feasible to keep on evaluating the upper secondary system as inherently meritocratic, and programme choices as potentially departing in individual differences and aspirations, when a large body of research highlights the stable reproduction of social distinctions through school and programme choices? Third, and consequently, can it be so that for example social class and gender differences are constituting elements of the Swedish education system, and therefore also inevitably take part in reproducing them?

So, it seems like the elegant separation of differentiation, difference, and distinction referred to above only is possible if painting the function of the educational system with a rather broad brush. The prelude quote is also taken from the introduction to an anthology (Wernersson & Gerrbo, 2013) where the authors see how

different research traditions, even if they are situated within the same department, understand the differentiating function of the educational system in various and sometimes even contradictory ways. In many ways, this thesis is a product of these tensions, while the point of departure was taken within a project framed by “a long withstanding research tradition evaluating the impact of school reforms on equal access and outcomes.” (CHANCE, 2012).

The withstanding tradition referred to is the Swedish, longitudinal collection and use of large scale data on education established already in the 1950s (see Härnqvist, Emanuelsson, Reuterberg & Svensson, 1994) and thereafter developed and widely used for evaluating how the school system can compensate for the inequitable distribution of resources in society at large (see Svensson, 2011). Within this tradition, the initial intent was to evaluate the impact of social background factors for upper secondary student recruitment in Sweden, and how this changed in relation to the so called “marketization reforms” of the Swedish education system. Thus, the inquiry was at the outset shaped by specific notions of “meritocracy, “evaluation” and “equal access”, as well as by an assumption of linearity in the relation between reforms and student recruitment.

However, as a result of the above articulated queries, the project of evaluating consequences of educational reorganisations in relation to equal access has expanded over time. From being a project concerning changes in student recruitment patterns and relate them to specific reforms, to also include a more distinct relational approach, viewing young people’s educational choices as shaped by as well as shaping the options that have been implemented through reforms. In these relational processes, the large scale evaluation of student recruitment in accordance with predetermined social categories must be approached critically. That is, not only are the categories used for evaluation in large scale studies products of power relations (such as the male/female dichotomy, c.f. Paechter, 2002), uncritical evaluation research can also contribute to the hegemony of these relations.

Proposedly thus, evaluating student recruitment patterns by predetermined categories, risks to reproduce social distinctions, and even to reinforce the stability of unequal conditions. To address the

researcher's position in this process, the essay integrating the co-studies of this thesis also includes a deepened analysis of the relations between recruitment research and recruitment policy. As a consequence, the structure of the integrating essay of this thesis is somewhat unconventional.

Structure of the integrating essay

This doctoral thesis is presented in two parts. In the first part, the integrating essay, six chapters are presented that are providing a background and a methodological setting for the thesis as a whole. Also, conclusions drawn from the four co-studies forming this thesis are discussed. In part 2, the four studies are presented in full.

The integrating essay of a doctoral thesis can be written in various ways. For this thesis, while taking a critical approach to the above outlined nexus of large scale data, predetermined categories, political reforms, and upper secondary student recruitment, another purpose is to interweave some of the threads in the comprised studies that are less explored. Mainly, as indicated above, these threads relate to the concept of student recruitment. That is, while student recruitment and recruitment patterns are key elements in all of the four empirical co-studies, none of these go in depth and analyse neither what meanings that are enfolded in the concept of student recruitment, nor its productive aspects when articulated and evaluated in Swedish upper secondary policy and research. Hence, alongside the summarisation, integration and synthetisation of themes and findings of the four included co-studies, part I of this thesis also presents a deepened analysis of how student recruitment has been problematized in Swedish upper secondary policy.

In the forthcoming section of Chapter 1, the problem is stated and an introductory framework is presented for the thesis as a whole. Here, the emergence of market logics in the school system and the general shift from ideas of education as a mean for social coherency, to becoming an individualised project are put in focus. The chapter introduces that both stability and change in upper secondary student recruitment have been outlined by previous research, but that the stable reproduction of social class and gender seems to be the

dominant pattern. The chapter also defines the general aim for the thesis as a whole, presents the aim and some of the key findings for the comprised empirical studies, and the specific questions driving the integrating analysis and discussion in the essay.

In Chapter 2, the thesis is situated in a broader context of upper secondary student recruitment and educational governance. The chapter is separated into three sections, the first describing previous findings of the large-scale evaluation traditions in Swedish upper secondary recruitment research, as well as broadening the scope by including insights from other methodological approaches concerning educational choice. The second section presents research concerning change in educational governance in relation to equal access issues and how young people understand their opportunities. In the third section, a framework for a deepened analysis of the organisation of knowledge in Swedish upper secondary education is presented.

Hence, the review of previous research presented in chapter 2 provides both a framework for an integrated discussion of the empirical results of the co-studies (in Chapter 6), but also a basis for an analysis of how student recruitment has been problematized in Swedish upper secondary policy over time, and to what consequences. The results of this analysis are presented and discussed in Chapter 4 of the integrating essay.

Chapter 3 presents the conceptual framework for this thesis. The chapter begins by placing the thesis within the relational and non-dualistic framework of Barad (2007; 2014). This presentation is followed by a description of the methodological approaches in previous large-scale, upper secondary recruitment research. By outlining some of the problematics of previous approaches, an analytical framework guided by the “What’s the problem represented to be?” (WPR) approach (Bacchi, 2012) and the concept of assemblages (Deleuze & Guattari, 1987; Savage 2018; 2020) is introduced. Hence, Chapter 3 both presents the methodological standpoints that have been taken, discussed, and developed in the co-studies, and a framework for the policy analysis in chapter 4.

After the presentation of the conceptual framework, follows a presentation and discussion of the empirical sources, i.e. the policy texts, news-paper editorials, and the large scale data, that has been

used for the analyses. Here, the diffractive approach is related to the analyses of data. Also, the variables and specific methods for calculating and illustrating recruitment patterns used in the co-studies are presented. Last, analyses of registry data are discussed in relation to aspects of reliability and validity.

Chapter 4 is perhaps the chapter which goes most astray from more conventional dispositions of an integrating essay. The objective here is to at the same time present an historical résumé of the establishment and re-organisations of a coherent post-sixteen education, and to approach these processes critically. That is, by the WPR approach and the concept of assemblages, the problematisations of “student recruitment” in the history of Swedish upper secondary reforms are analysed in relation to its shifting meanings and productive aspects.

In Chapter 5, the comprised studies, and the empirical findings are summarised. In chapter 6 these findings are further discussed in relation to the analysis in chapter 4, within the integrating framework presented in the preceding chapters.

Stating the problem

Over the last three decades, Swedish upper secondary school have been reformed in line with ideas of individualized freedom of choice, customer orientation, and competition. These reforms towards a quasi-market structure have been extensive in Sweden as well as in the Western world in general. Overall, these market orientated reforms have in policy been referred to as leading to increased social equality, although research from different national contexts highlights how the introduction of market logics in education reproduces or even enhances social distinctions (e.g. Ball, 1993; Ball, Bowe & Gewirtz, 1996; Lundahl, 2002; Beach & Dovemark, 2011; Kosunen & Carrasco, 2016). For the Swedish school system, the implementation of quasi-market structures and freedom of choice has had consequences for educational equality in terms of for example increased achievement gaps between secondary schools (Gustafsson & Yang Hansen, 2016), clustering of upper secondary schools to the city areas (Fjellman, 2017), and for social class differences in travelling

to school distances (Andersson, Malmberg, & Östh, 2012). Also, there are indications that children from more privileged homes to a larger extent attend a so called independent (private) school (Bunar & Ambrose, 2016), and that social sorting and achievement gaps between schools have implications for higher education choices (Bygren & Rosenqvist, 2020). However, previous research on upper secondary programme choices show that the impact of social background remains stable over time (Palme, 2008; Forsberg, 2015).

This thesis revolves around the tensions that emanate from the above sketched shift in educational governance in accordance with coherency and centralised control, to a market orientated individualisation of education. The comprised studies address the history of Swedish upper secondary education, and how the programme organisation has changed, but also remained stable over time. Also, some possible reasons for both stable reproduction and changing patterns are proposed.

The organization of Swedish upper secondary education as one integrated school form, including both academic and vocationally orientated programmes was established in the upper secondary school reform of 1971. By reorganising post-sixteen education into a coherent school form, the reform of 1971 aimed to reduce the impact of, primarily, family background for educational trajectories. This intention stemmed from over 20 years of investigations of how equal opportunities in and through education could be achieved through organisational changes, such as the implementation of the Swedish nine-year comprehensive school in 1962 (Marklund, 1980; Husén, 1989). As part of the project of “one school for all”, the integration of pre-existing post-sixteen school forms in the “new upper secondary school” of 1971 had as a main driving force to attract new groups of students to the academic preparatory programmes, in line with the increasing demand of a “qualified workforce” (SOU 1963:42). Accordingly, up to the 1990s, programme organisation and programme choice were in the centre of attention in large-scale evaluations of student recruitment.

The 1990s is often presented as a historical divide for the Swedish welfare system, where the “free choice reforms” represent the break when education shifts from “a public to a private good” (Englund,

1996). This shift has also been thoroughly investigated in the last two decades. For example, in recent large scale student recruitment research the impact on educational equality of private actors establishing upper secondary schools within the public-funded voucher system implemented in 1992 (prop. 1991/92:95; also prop. 1992/93:230), has in particular been investigated. In her thesis, Fjellman (2019a) delineates how upper secondary schools from 1992 and onwards are increasingly clustered to the larger city regions, which affects youths' opportunities to choose school differently depending on where they live. This, Fjellman argues, leads to spatial differentiation which challenges the idea of equal educational opportunities through freedom of choice. From a socio-geographic perspective there are also indications of the "free" upper secondary school choice being restricted by factors of time and space for youths from families with fewer resources (Andersson, Malmberg & Östh, 2012). Further, Forsberg (2015), argues that the emergence of an education market and a supply-demand relationship between schools and families in the Stockholm region still reproduces the pre-existing social structures of the upper secondary field.

There are also indications of the "market discourse" as quite prevalent in youths' upper secondary choices. For example, Lund (2006) distinguishes three stages of upper secondary choice: choice of school, choice of programme, and choice of courses and subjects within a programme. By analysing students' reasoning around upper secondary choices, Lund argues that the market-discourse is pervasive, forming ideas of what different options are "worth", and thus actively forms youths' decisions (see also Lidström, Holm & Lundström, 2014). This pervasiveness of the market is also demonstrated in a report from a Swedish project (Öhrn & Holm, 2014) where gender differences in youths' reasoning are discerned. In short, the above research highlights that while social background still has impact on upper secondary choices, the "marketization" and the "freedom of choice" reforms have introduced other factors affecting choice. It suggests that upper secondary school options cannot be viewed as set units but as formed by contextual, and shifting, relations.

The emergence of an upper secondary quasi-market thus has affected upper secondary education, the options available, as well as what it means to make an upper secondary choice. Also, I argue, it has directed focus of educational research from programme choices to the “new reality” where school choice has become central. However, as for example Lundahl (2002) underscores, the “new” orders in the 1990s emanated from previous decades of political discussions and reforms. Upper secondary education, and how knowledge is organised within curricula, is one example of how the “old” still is part of the “new”. Therefore, there are reasons to approach Swedish upper secondary reform history and student recruitment patterns with attention paid to stability as well as to change.

In accordance, the research presented in this thesis concerns Swedish upper secondary reforms, from the early 1970s up to the most recent reform in 2011, and their consequences for student distribution over different subject areas. Consequently, although this thesis is placed within a tradition of evaluating the impact of social background for educational opportunities in the process of upper secondary student recruitment, the attention slightly shifts from educational options as mere outcome variables to being actively involved in the differentiating processes of upper secondary education.

Empirical case and contributions

The main theme for this thesis is the complex relations among social background factors, educational policy, options and choice in Swedish upper secondary education. The empirical material is provided by Swedish registry data on youths’ upper secondary enrolment and social background, derived from Statistics Sweden, and by policy documents (Swedish government official reports, and white papers). The scope involves the upper secondary reform history from the early 1960s up to 2011, and the four empirical studies include cohorts born between 1974 and 1999 (app. 1). The scope thus is broad in terms of time span as well as the national perspective taken

in all studies except for the case study of a particular city region in the south of Sweden (co-study 2).

One of the contributions of this thesis relates to the broad span and the longitudinal perspective. It takes up the tradition of longitudinal evaluation of upper secondary student recruitment and comparisons between birth cohorts represented by for example Härnqvist (1958), Reuterberg & Svensson (1994), and Svensson (2011), and explores the differentiation functions of the upper secondary system in the light of freedom of choice and marketization. Furthermore, the thesis also contributes to the field of student recruitment research by proposing a methodological framework that approaches policy and recruitment data as part of a relational process.

Aim and co-studies

Based on previous research, the reforms implemented in the Swedish education system in the 1990s thus seem to have redrawn the map of upper secondary education (e.g. Fjellman, 2019a). In this shifting educational landscape, however, the reproduction of social distinctions through upper secondary student recruitment still seems to be strong (e.g. Forsberg, 2015). Consequently, the upper secondary reforms of the last five decades appear at the same time to have guided change, as well as having carried ideas and practices that have been reinforcing stability. The recognition of this concurrent change and stability suggests that questions of student recruitment in relation to the differentiating capacities of upper secondary programme options should be revisited.

Therefore, the general aim for this thesis is to identify gaps and deepen knowledge about “student recruitment”, both as actively taking part in the constitution of upper secondary policies and as a representation of educational trajectories. Within this aim, particular attention is paid to the policy processes by which Swedish upper secondary options are shaped and implemented, and how these options take part in reproducing social distinctions.

Accordingly, the first co-study in this thesis presents some possible consequences of the ideas of freedom and choice and mobility for student distribution patterns. The reform in focus is the “access

reform” of 1994, where all upper secondary education came to provide the basic entry requirements for higher education. The study involves the impact of parents’ educational level and student enrolment in either traditionally academic preparatory or vocational education, in either public or independent (private) schools. The study also aims to contribute to the understanding of differentiation as a particular concept in the Swedish reform history, and how it changes discursively. The main finding of the study is that the “access reform” seems to have opened up for transitions over the traditional divide between academic preparatory and vocational education. However, these changes are predominantly related to the increased representation of children from homes with two years or more of higher education. The conclusion drawn in the study is that the status of (some of) the programmes that previous to 1994 did not provide access to higher education increased by the reform. As a suggestion for further research, the vocational programmes are proposed to be investigated in relation to their function as a potential “double asset”, that is providing both the basic entry requirements for higher education and the opportunity to become employed after upper secondary education.

The aim in co-study 2 also relates to the idea of mobility, connecting to the indication in co-study 1 that the access reform of 1994 and the strong focus on applicability of upper secondary education in the 2000s had consequences for student distribution. For this study, the analysis of national education policy is related to contextual materialisations, by the particular example of editorials from a local daily newspaper. Also, student recruitment to upper secondary programmes articulated as “valuable” and “in demand” (the Construction programme) and as a “passing fad” (the Media programme) respectively, are analysed within the particular city region with previous achievement (grade point averages), gender and parental educational level as background variables. The main finding of the study supports the idea of some programmes being perceived as a “double asset” after the reform of 1994, this exemplified by the changes in recruitment patterns for the Construction programme. However, the findings suggest that it is the access reform combined with a discursive shift that contribute to the changes in recruitment

patterns. That is, the clustering of young people with higher grade point averages and from families with a higher degree of formal education in the Construction programme is concentrated to the mid-2000s, concomitantly with the strong focus on skills and employability highly present in local, national and cross-national contexts at the time. Another important result of the study is that girls and boys respond differently to the Media programme and that the responses changes over time. That is, on the one hand, when the status of the Media programme seems to be at its' peak in the 1990s, the average enrolment score for boys and girls respectively is similar. On the other hand, when the programme's status is at a low-point in the early 2000s, the gap between girls (higher) and boys (lower) average enrolment scores is the widest.

Co-study 3 contributes to the overarching aim by the intention to deepen knowledge of relations between organization of education and ideas of individual choice/flexible options. Returning to a national level, co-study 3 aims to investigate how gender relations in the upper secondary programmes offering so called STEM (Science, Technology, Engineering, and Mathematics) subjects are affected by the emergence of a structure diversified by multiple options in the early 2000s. Similar to co-study 2, the main finding of the study is that girls and boys respond differently to the investigated programmes and options. Boys cluster in the specialised Technology, Mathematics and Physics areas, while girls are overrepresented in the broad Science area and in the Biology area. One main conclusion drawn from this study is that the multiple options structure implemented in 2000 contributes to a reinforced gender divide within the upper secondary STEM related programmes, by for example distinguishing Mathematics as a specialisation.

While co-study 3 contributes to the understanding of how options and choice interact, co-study 4 asks the question of how large scale research on recruitment patterns in Swedish Upper Secondary Education has been involved in policy to form a "social sciences" area. The study adds to the overarching aim by outlining some potential consequences of re-establishing a "space for the other", for the reproduction of recruitment biases. The main finding in this study, which also can be related to the finding in co-study 2 of the

gendered gap within the Media programme, is that girls cluster in areas that in policy are articulated as “insufficient” and “indistinct” in relation to post upper secondary trajectories. Also, as in co-study 3, the separation of the broad “Social Sciences” programme into more specialised programmes in 2011 seems to contribute to an increased gender divide in student recruitment.

Altogether, the results of the four co-studies contribute to the knowledge about Swedish upper secondary student recruitment by outlining 1) patterns of change in student recruitment in terms of mobility over the traditional academic/vocational divide after the secondary “access reform” in 1994, but also how 2) these changes emerge concomitantly with the increased focus on skills, applicability, and employability in the 2000s. This focus is proposedly also related to the 3) increased gender differences that appear when upper secondary education becomes more diversified after the reforms in 2000 as well as in 2011. Furthermore, the results also discern how 4) girls repeatedly cluster in programmes and options that are expressed as less applicable and (hence) less desirable.

Questions driving the integrating essay

As articulated in the beginning of this section, the aim of this thesis as a whole is to identify gaps and deepen knowledge of student recruitment as a reoccurring problem in policy and as a representation of educational trajectories. In relation, the two-folded purpose of this integrating essay is on the one hand to further address the stability and change in student recruitment patterns as appearing in the co-studies, by relating them to how upper secondary options are formed in policy. On the other hand, the cumulated results of the four studies have generated some ensuing questions. These questions predominantly relate to the concept of student recruitment, and how it is represented as a problem in Swedish educational policy over time. Accordingly, the purpose of the questions is to form an integrated understanding of the results of the co-studies, as well as to produce knowledge that will add to these results. The questions driving the integrated essay are:

CHAPTER 1

1. How, and for whom, are upper secondary educational options formed in policy, from the curriculum implemented in 1971 to the curriculum of 2011?
2. How is student recruitment problematized in policy, and to what consequences for the upper secondary reforms in 1971, 1994, 2000, and 2011?
3. What are the elements shaping and legitimising ideas of options and student recruitment?

Chapter 2 Upper secondary governance and student recruitment

In the subsequent chapter a review of previous research relating to educational choice and governance is presented. The chapter is separated into three overarching sections, relating to the particular attention paid to the impact of social background factors, specifically gender and parents' educational level, and the constituting elements of upper secondary educational policies. Included in this is also the problematizing of options that are produced in the processes of reforming Swedish upper secondary education. In accordance, the first section outlines a selection of previous large scale research on the relations between social background factors and student recruitment to Swedish upper secondary education. The second section predominantly addresses Swedish research studies describing shifts in educational organisation, governance, and discourse in relation to choice actions as well as young people's reasoning around choice. Also, the second section presents research specifically focusing gender in relation to market logics, individualisation, and freedom of choice. Last, the third section includes research relating to the programmes and options that are addressed in the four co-studies.

Absence and presence in Swedish recruitment research

For the subsequent sections, a selection of previous research on the impact of social background factors is presented. In general, two traditions can be traced in this large body of research. In short, the first presented tradition can be described as predominantly concerning the absence of specific groups in specific areas in relation to organisational barriers for equal educational opportunities, and the

second as mapping out flows and what groups that are present in different spaces within the field of education.

Barriers for equal educational opportunities

In Swedish large scale recruitment research, there is a long tradition of identifying barriers for transitions between different stages in the school system (c.f. Reuterberg & Svensson, 1998; Svensson, 2011). Post-sixteen education (i.e. upper secondary school) has been particularly investigated as a sorting instance, horizontally differentiating towards labour market sectors as well as preparing for higher education. The latter, the role of upper secondary education in the process of vertical differentiation, has been of major concern in Swedish reform history from the implementation of the “new upper secondary school” in the 1970s up to the most recent reform in 2011.

Already in the 1940s, empirical findings highlighted that social background was a stronger predictor for transitions to higher levels in the school system than aptitude tests (Boalt, 1947). In the following years, Husén (see Husén & Härnqvist, 2000) concluded from comparing aptitude tests, social background factors, and educational trajectories among Swedish (male) army recruits, that the stratified school system excluded working class children from higher education. By this Husén argued that there was an “ability reserve” of unrealized potential, while working class children were excluded from higher education by the early stratification in the parallel school system preceding the comprehensive school reform in 1962 (also Härnqvist, 1958; Marklund, 1980; Husén, 2002). Following the “ability reserve” findings, a series of work investigated the social selection to higher education, where upper secondary academic preparatory education has gained interest as a mediating instance. In the extensive government report of 1980, Härnqvist and Svensson (SOU 1980:30) present how the problem with socially biased student recruitment remained. For example, while 60 percent of boys from privileged homes (in terms of social and economic status (SES)) chose a three or four-year, academic preparatory programme, only 10 percent of boys from lower SES-homes did alike. Furthermore, this discrepancy was, to some extent, found to remain when controlling for grades.

The commission report also outlines gender biases in choice of programmes, highlighting how boys were over-represented in science and technology. An overrepresentation of girls, accordingly, was found in the humanities as well as programme areas orientated towards the social sector or economics. Another major issue was the heavy gender bias of the vocational programmes with for example an over-representation of females in health care and an almost complete male dominance in construction programmes (SOU 1980:30).

In a follow up study, investigating the upper secondary choices of youths enrolling in 1998, Svensson (2001) presents how selection to the academic preparatory programmes still were biased towards children from highly educated homes. Also Erikson and Rudolphi (2011) discern how youths from homes with higher education attain higher grades, but also that they are more likely to continue on to higher education when grades are controlled for.

Mapping out social reproduction

The social structure of Swedish upper secondary school has also been researched extensively within what can be referred to as a bourdieusian tradition. For example, Broady and Börjesson (2005) performed a correspondence analysis providing a social map of upper secondary enrolment in the Stockholm area. In this spatial analysis, the gender biases of upper secondary programme enrolment become obvious, with mainly boys within the construction, vehicle, and industry programmes and a clear overrepresentation of girls in care related areas. By this map, it also becomes clear that parents' educational capital influences educational choices rather than their economic capital. Also, the study makes clear that the academic preparatory, Natural Sciences and Technology programme takes a prominent position in the hierarchical order of upper secondary options. However, it is illustrated how boys from homes with lower educational capital are overrepresented in the academic preparatory Technology area, suggesting that, although often investigated as one aggregated unit, there are different recruitment bases for the Sciences and Technology areas respectively (Broady & Börjesson, 2005; c.f. Moote, Archer, DeWitt, and McLeod, 2020).

Also, Palme (2008) investigates the importance of symbolic capital(s) in the Swedish education system between 1988 and 2008. In his thesis, Palme uses statistical methods, combined with interviews, observations and text-analyses when investigating relations among Stockholm's upper secondary schools and programmes. The findings suggest that the structure of upper secondary education is polarised. In a first dimension, there are "elite" programmes, enrolling students with a high social and cultural capital on the one end and "popular" programmes enrolling students with less cultural capital on the other end. In a second dimension, upper secondary education is found to be parted in a "cultural" and an "economic" pole respectively. While the first attracts students with high cultural capital, the latter attracts students with a high economic capital and affiliations. In relation, Palme emphasises how this polarised upper secondary school seems to be a rather stable structure, and that social reproduction through upper secondary school remains despite the decentralisation and marketization processes affecting the school system during the 20-year time span of the study.

Within this theoretical framework, Lidegran (2009) focuses students within two regions with high educational capital and high economic capital respectively. In her thesis, similar to Palme (2008), Lidegran performs geometric data analyses and interviews to deepen the understanding of how different forms of capital relate to educational trajectories. Taking an example in student cohorts leaving secondary school in 1988, the thesis contributes to knowledge on how the educational system is used by students depending on forms of capital, with particular attention to educational capital, and how this varies between sexes. As a point of departure, the difference between inherited and acquired capital is highlighted. In relation, one important conclusion drawn is that students with a significant amount of inherited resources, also are more successful in acquiring educational capital of their own. Furthermore, Lidegran (2009) also shows that there are gender differences in both content and direction of the acquired capital, by mapping out the formations of a female/French (language)/humanities/public sector pole and a male/German/engineering/private sector pole both in upper secondary education and in higher education.

Distinguished directions and preferred spaces?

To conclude, previous research shows how the Swedish education system persistently reproduces classed and gendered distinctions seemingly unaffected by changes in the organisation of education and societal shifts. Apart from this general base, the studies also have in common that the positioning of academic preparatory education, and in particular science and technology, as superordinate appears to be both a result of and an assumption behind this line of research. Furthermore, shifts in education governance and policy are within both traditions typically presented as rationales or as a background for the investigations of student recruitment. Therefore, the following section outlines previous research concerning shifts in governance in relation to educational choice. This in accordance with the aim of this thesis to deepen the understanding of the reciprocal relations among social background factors, educational policies, and the options made available in Swedish upper secondary school.

Shifts in educational governance in relation to choice

Shifts in educational governance have in previous research been approached from a multitude of perspectives, in different contexts, and considered different levels in the education system. One important reference for this research in a wide range of national contexts has been Ball (e.g. Ball, 1993; 2003a; 2003b; 2007), who in various analyses outlines how power relations between the public and the private sector are transformed over time and where it is argued that privatisation has become a key factor in educational reforms. Important for this line of research is the critique of a simplistic understanding of these power relations. Instead, Ball puts forward approaches which are considering the complex relations among organisational changes within institutions and new modes of governance (e.g. networks, performance governance), as well as the privatisation of the state and the capital's interest in public services. A wide range of Swedish policy research is performed from a similar approach, and it has been outlined how the Swedish education system

stands out as one of the most privatised and market orientated systems, with more similarities with for example the United Kingdom than the Nordic context (Dovemark, Kosunen, and Kaukko, 2018). Consequently, the subsequent review will focus on the specificities of the Swedish context, put in relation to the U.K.

Decentralisations and deregulations of the Swedish school system

For the Swedish context, Lundahl (2002) and Lundahl, Erixon Arreman, Lundstöm, and Rönneberg (2010), present a comprehensive analysis of upper secondary governance in relation to the decentralisation processes of the 1970s and 1980s, where state subsidies to education became more adapted to local conditions as a response to demands of a more flexible system. Further, Lundahl (2002) demonstrates how the shift in governance from State to local level was enhanced during the 1990s, when most educational policy making and funding were made in local contexts. Lundahl's text from 2002 also points at a contrary movement in the early 2000s, where state level efforts were made to control problems arising in relation to equal educational opportunities across municipalities. However, at the same time there were still clear tendencies towards increased local autonomy for Swedish upper secondary education, with the time allocation reform as a central example. Nevertheless, one main conclusion drawn in Lundahl (2002) is that the idea of "equal educational opportunities" as best achieved by centralised governance was pushed back in the 1970s and 1980s, which enabled the strong influence of market orientated interests in the subsequent reforms.

Also taking departure in the decentralisation and deregulation of Swedish upper secondary education, Erixon Arreman and Holm (2011) show how the educational system changed at its foundation in the 1990s and 2000s. By mapping the emergence of "independent schools" run by private actors after a series of reforms in the early 1990s, the researchers conclude that the vast and rapid expansion is related to the weak regulations (in comparison to public sector schools), the generous financing of the "voucher system", and the increased autonomy of individual schools. Also, as Lundahl, Erixon

Arreman, Holm, & Lundström (2013) conclude, this external marketization of the Swedish school system, had consequences for the internal governance of schools in line with New Public Management principles.

In contrast, Nordin (2014) challenges the focus on decentralisation processes in the Swedish school system and outlines the contrary movements which also Lundahl's study (2002) indicates. He states that education governance has been increasingly influenced by the European Union, in for example "entrepreneurship education" (see also Carlbaum, 2012). Also, Nordin takes example in how independent schools cluster in a few large corporations (c.f. Holm 2017), as well as in the standardisation of tests and assessment.

Increasing options?

As outlined above, although there were some contrary movements, it is clear that Swedish education governance changed considerably during the 1990s and 2000s. This vast marketization of education in Sweden since the 1990s has induced a large body of research outlining the consequences for equitable opportunities in relation to the increased supply of upper secondary schools and customised options. Foremost, equality issues in relation to the enabling of independent actors establishing schools, together with the implementation of the tax funded school voucher have been central. The results of this body of research are for example that Swedish youths increasingly enrolled in an independently run upper secondary school during the 2000s (Arreman & Holm, 2011), but also how upper secondary students have been affected by the consequences of schools being profit driven in terms of bankruptcies leaving them without education (Holm, 2017).

For the U.K. context, the emergence of a market orientated educational system has been analysed in research since the early 1990s. A vast body of research, departing in interviews, ethnographic studies, and statistical data has highlighted the democratic consequences of a voucher system framed by market orientated ideas of accountability, customer orientation and efficiency. The results indicate that increased freedom of choice favours those who already

are privileged, predominantly children from the middle classes (e.g. Reay 2004). Further, and consequently, the market orientated system in the U.K. contributes to an increased segregation, while middle class parents take advantage of the system to reinsure that their children end up in the same school as other middle class children (Ball, Bowe & Gewirtz, 1995; Ball & Vincent, 1998; Reay & Ball, 1997; Ball, 2003). In relation, even though some Swedish research point at the housing segregation as a more influential factor than free school choice (e.g. Böhlmark, Holmlund, & Lindahl, 2015), there are also strong indications that the growing upper secondary quasi market in Sweden has had segregating consequences. This is for example highlighted in the spatial analyses by Andersson, Malmberg, and Östh (2012). Their analysis show that traveling to school distances in general increased between 2000 and 2006. However, they also outline how foreign-born students, except those with highly educated parents, were travelling shorter distances. This is in accordance with Fjellman (2019b), who highlights how students' geographical mobility relates to social background factors, and concludes that youths from highly educated homes express a higher degree of mobility, but also that girls travel further than boys. Additionally, Fjellman (2017) shows how youths, particularly in rural areas, have limited possibilities to choose freely, because school quasi markets have been increasingly concentrated to the larger city regions since the early 2000s (also Fjellman, Yang Hansen, & Beach 2019).

By the above, it is clear that the increased number of schools and educational options affect the geographical distribution of students, and contributes to an increasing segregation. In the following section, the consequences of market logics permeating the education system, outlined in previous research, is further elaborated on.

Consequences of individualisation and market logics

In previous research, the foundational market-principles of self-regulating systems, individual freedom of choice, and relations between supply and demand are problematized and put to scrutiny in relation to issues of equality. For example, Dovemark (2004) show that ideas of individualised education, shaped by neo-liberal

discourses of responsibility, flexibility, and freedom of choice have consequences in school practices. One important conclusion drawn from her ethnographic studies in Swedish secondary schools, is that when the pupils' come to understand potential success as an individual responsibility, social factors limiting these possibilities are silenced in practice.

Carlbaum (2012) also delineates how individualisation and market logics affect the construction of the “good citizen”. In an analysis of Swedish education policy up to 2011, Carlbaum outlines how discourses of applicability and entrepreneurship replace previous goals to foster democratic citizens. In her analysis it also becomes clear that the construction of the “good citizen” re-enforces the white, male, middle class as norm (Carlbaum, 2012). The conclusions drawn from Carlbaum's as well as Dovemark's thesis are also supported by previous policy analyses in an extended European context. For example, Nóvoa (2002), delineates how the articulation of “a flexible individual”, who freely moves across national borders has been part in the construction of an internationally competitive Europe. Flexibility, however, does not only concern geographic mobility, but also the willingness to adjust to a shifting labour market. To be successful, thus, is to meet the demands of a “globalised world” by making yourself employable (e.g. Ozga & Lingard, 2007).

The division of success and failure

There is a strain of research in Sweden focusing on how the shift towards flexibility and individualised responsibility for becoming employable translates in relation to upper secondary choice. For example, Forsberg (2015), Harling (2017), and Thelin (2019) highlight from different methodological perspectives how schools and youths are positioned/positioning themselves in accordance with an economic divide of success and failure, dependent on individual freedom of choice in a school market organised around ideas of supply and demand. However, while Forsberg (2015) points out how students and their parents become customers (i.e. positioned as the demanding part), Harling (2017; also Dahlstedt & Harling, 2017) concludes that even though practices such as “school fairs” are posed

as arenas for schools to display their “supplies”, it is rather the pupils that become positioned as commodities of different values. That is, some pupils are seen as more valued, more desirable for some schools (and programmes) to enrol, than others. In relation, the pupils in Harling’s (2017) ethnographic study seem to respond to the upper secondary offerings in two ways: both as means to become “something”, and as a way to re-establish who they already are (positioned to be). These differentiating practices, Harling’s findings suggest, are linked to social class. Thelin (2019) also investigates choice of upper secondary schools in the “market place” of education, and concludes that pupils with a low grade point average seem to respond more to the prospect of getting a free tablet from school, or to enrol in the same school as their friends.

The dualistic divide of success and failure, has also been outlined in a large research project on Swedish ninth-graders called “Att lyckas i skolan” [To succeed in school] (Öhrn & Holm, 2014). This project takes on different perspectives on educational performance and choice. For example, Asp-Onsjö and Holm (2014) highlight how pupils are embracing the individualistic idea that “everyone can succeed if they put their mind to it” (p.45). Also, pupils express that achievement expectations are no different between boys and girls. However, some pupils articulate that they feel limited in terms of freedom of choice, and relate this to parents’ educational status and/or having parents who did not attend the Swedish school system themselves (p.47).

The presence of a market discourse in school practices is also highly prevalent in Lund (2006). Lund specifically focuses upper secondary choices among youths in a particular region in the south-east of Sweden, and finds three “actions of choice”: vocation-oriented, career-oriented and consumption-oriented. The consumption-oriented actions occur when youths have various, but equivalent options to choose from, which results in pupils evaluating their options after how schools and programmes market themselves. Also Beach and Dovemark (2011) demonstrate how consumerist performances emerges from the view of education as predominantly having an exchange value on the market, and suggest that “individual

enterprise and selfish accumulation” seem to become key features in upper secondary education practices in the 2000s.

In another study, drawing on the same material as Lund (2006), Lund (2008) argues that upper secondary choice in a marketised system has come to be a discursive process where youths must reason around their choices and are hence also enabled to choose more freely in relation to previous generations where parental influence had a major impact. Lund’s last conclusion is however contrary to for example Dovemark (2004) and Beach and Dovemark (2009; 2011), who argue that the construction of the “successful individual” within a neo-liberal market logic gives privilege to already privileged groups. In their analysis of practices in two eight-grade classrooms, Beach and Dovemark (2009) highlight the exteriorisation of knowledge (c.f. Ball 2003b), that is the shift in the relation between education and identity. By departing in an analysis of policy, where a shift from what pupils should know to what they should be appears, they show how some choices are more valued than other. Within this framework, the pupils that makes the “right choices” are those who take control over their futures by attaining resources that can be exchanged into external values. This conclusion can also be understood in parallel with the pupils in Holm (2014), who are repeatedly referring to upper secondary education as a mean for future trajectories.

Successful girls?

Furthermore, within the “To Succeed in School” project, Holm (2014) discerns three, intertwined, discourses when youths talk about educational achievements and future trajectories from a gender perspective. First, the maturity discourse where girls are positioned as more mature than their male peers, and therefore (are expected to) perform better in school. Second, the discourse of individualisation and freedom of choice is again highly prevalent when pupils are talking about aims and goals with their education. Within this discourse, Holm (2014) with reference to Paechter (2002), see how girls to a higher degree take on this individualised responsibility by being positioned/positioning themselves as “reaching higher” and “wanting more” (p.170). Third the gender order is made explicit,

when the youths in the study express that girls have to work harder and accumulate education to a greater extent than boys, because of prevailing labour market structures. Hence, and in contrast to the male coded entrepreneurial subject outlined by Carlbaum (2012) above, Holm (2014) notes that the girls in the study to a greater extent embrace values such as competitiveness and individual responsibility, than boys do. This, Holm argues, might however not be taken as a token for reduced gender differences but rather to be understood in accordance with previous findings highlighting how successful girls take on a more masculine approach, and by that dis-identify with other girls (Holm, 2014, p.170). The findings in Holm's study resonate with Ringrose (2009), who demonstrates how the discussion of the "failing boys" in policy and public debate also creates the idea of the "successful girls". The dichotomous positioning of girls as "in power" in contrast to their previous subordination to boys in education (c.f. Öhrn, 2000), Ringrose argues, is within the neo-liberal discourse made an example of how "everyone" can succeed.

In the above, research concerning the complex processes of educational choice in relation to the formation of a school quasi market, individualised choice structures, and the commodification and exteriorisation of knowledge is outlined. By the influence of market logics, I argue in accordance with for example Lund (2006; 2008) that there are reasons to further explore the meaning of traditional sociological categories for educational choice. However, in doing so, there are also reasons to gain a deeper understanding of how educational options are constituted and reconstituted in relation to gender and social class.

Option formations

Throughout the thesis work there has been a focus on how options are formed and implemented in upper secondary education. One important aspect of the policy analyses performed in the co-studies is that there is an assumption of knowledge and knowledge formations as inherently neutral and that classed and gendered recruitment patterns can be addressed by infusing something "more" (as for example the increased generic content in vocational programmes

implemented in 1994 (c.f. co-study 1; co-study 2), by integrating programmes (such as the integration of the Natural Sciences and the Technology programme in 1994, or by introducing a wider range of available options within an area (as for the implementation of a multiple options structure in 2000 (c.f. co-study 3). However, as stated in chapter 1 (p.26, above), the empirical results from the co-studies show how options are formed by power relations, and that the gender order seems to be highly present in these processes. To further deepen this discussion, the following section of this literature review presents research outlining relations among knowledge, knowledge formations, and gender is presented. As apparent in the co-studies and also in the preceding parts of this chapter, the upper secondary programmes included in the so called “Science, Technology, Engineering, and Mathematics” often takes a prominent position in both policy and research. This is the case also in the following, however with the intent to challenge this position.

The constitution of STEM

The acronym STEM (Science, Technology, Engineering, and Mathematics) is a construction which emerged in the US in the early 1990s (at the time as SMET), as a political directive to enhance economics and with a clear vocational orientated agenda (Marginson, Tytler, Freeman & Roberts, 2013). It is today a concept widely used in relation to national and global progress and prosperity. Also, in some English speaking countries (predominantly in the US, UK, and in Australia) there are articulations of “STEM-crisis” in relation to student- and workforce recruitment (Blackley & Howell, 2015). In relation Lövheim (2014) addresses the prominent position of STEM areas in Swedish policy. He highlights how the need of scientific manpower emerging in the mid-20th century, put science at the core of Swedish educational planning and restructuring. As Hedlin (2009) highlights, recruitment to the STEM-area has been of major concern in Swedish educational policy over time, and this concern has revolved around the gender bias, girls being underrepresented. The particular interest in recruiting girls to STEM-related, academic preparatory programmes (i.e. the Natural Sciences and the

Technology programmes) has attained specific interest in Swedish policy and research. This focus, arguably, is intertwined with the influence of Swedish large scale recruitment research in policy (c.f. co-study 4). As outlined in the first section of this literature review, large-scale investigations have repeatedly demonstrated how youths' from less privileged homes, and particularly girls have been underrepresented in Science and Technology over time (e.g. Härnqvist, 1999; Svensson, 2001), also when controlling for previous attainment in for example Mathematics (Andersson, 1998).

The “gender gap” in STEM is also widely researched internationally. In a systematic review of 324 STEM-related scholarly texts from 1970 to the 2010s, Kanny, Sax, and Riggers-Piehl (2014) found five dominant explanations of why women are underrepresented in STEM. These were categorised as 1) individual background characteristics, 2) structural barriers in K-12 education, 3) psychological factors, values and preferences, 4) family influences and expectations, and 5) perceptions of STEM fields. One main conclusion to be drawn from the meta-study is that much of the STEM literature address the area as an aggregate, and that there are reasons to disperse the outcome variable in order to gain a deeper understanding of gender biases within the field.

In a vast, longitudinal, project in the UK comprising young people between 10 and 23 years of age, there is a clear aim to understand science aspirations from a subject specific perspective (Archer, Moote, Macleod, Francis & DeWitt, 2020). For example, Archer, Moote, Francis, DeWitt, and Yeomans (2017) investigate how girls pursuing post-compulsory physics develop a “physics-identity”, which requires them to make themselves intelligible as “exceptional”. From their case-study, the writers suggest that there might be no “pool” of young girls that would attend physics if structural hindrances were to be removed. Instead, they argue, a “female physics identity may be highly rarefied and elite.” (p.120). Yet, in a related study a common discourse of “everyone can succeed” becomes discernible in relation to science and Physics (Francis, Archer, Moote, DeWitt, MacLeod & Yeomans, 2017; c.f. the results of Asp-Onsjö & Holm, 2014, p.14 above). In contrast, they also conclude that the discussions on femininity and physics among students and their

parents denigrates the “girly girl” (c.f. Gonsalves, 2014) as well as other (potentially positive) feminine attributes.

Also within the *Aspires* projects (Archer et al., 2020), a series of work has elaborated the idea of a science capital. The concept is meant to define some specific background factors, with consequences for science trajectories, traditionally included in the notion of a cultural capital. As stated in a recent project report, the science capital includes attitudes and dispositions towards science, who you know (thus extending the family background factor), and everyday engagements with science (Archer et al., 2020). In a previous study, Archer, Dawson, DeWitt, Seakins, and Wong (2015), found that science capital is strongly clustered in the privileged social strata. Yet, through their statistical analyses, they claim that science capital does have an explanatory value in relation to propensities towards post-compulsory STEM-participation. Further elaborating on science capital, Moote et al. (2020) found that attitudes to engineering and maths attitudes correlate to a higher degree with the concept than attitudes to technology do.

In the same publication, Moote et al. (2020) discuss the policy construction of a “pipeline” towards STEM in relation to “elite tracks” in UK school science (i.e. Triple Science). They argue that the “STEM pipeline”, intended to supply specialised workforce, must be kept separate from school science, while highly specialised tracks in youth education rather seem to limit the recruitment basis for higher education STEM. As another way of thinking about STEM in school, Archer et al. (2013) introduce the “springboard” metaphor. By this, the writers argue, the idea of STEM as a straight road can be challenged in favour of a notion of the area as valuable also in relation to other trajectories. Similarly, Mendick, Berge, and Danielsson (2017), show how there have been clear tendencies during the last decades in Swedish, as well as Western European and North American educational policies, towards a pipeline model in relation to STEM. They build on the idea presented in Archer et al. (2013), of enabling other ways of thinking about STEM, for example as “springboards” but also as “ecosystems” or “zones”. In their article, they outline how the pipeline model relies on the idea of STEM education as a supplier for specific labour market demands. Also, they

claim, by imagining this supply as a stream with a predefined route, articulations of “leakages” appear. In relation to these leakages, categories are produced representing the absentees (the underrepresented), as for example “women” or “women of colour”, particularly in quantitative evaluations. From their case study Mendick et al. (2017) conclude that the categorisations of the “underrepresented” limit the engagement with social justice insofar that it “does not consider the intersecting forms of privilege that allow some women and people of colour to progress through the pipeline.” (p.493). Also, they argue that “the pipeline model assumes that science itself is unproblematic” (p.493).

Similarly, Mendick (2005) discusses gendered discourse of rationality in Western thought, relating it to how English youths are positioned/positioning themselves in relation to being good/not good at Mathematics. She finds that the youths in her study locate themselves in gendered oppositions of being for example competitive/collaborative and naturally able/hardworking. This also becomes visible in Nyström (2012), who explores how students in the Swedish Natural Sciences programme relate to their own accomplishments, and concludes that boys in her study often position themselves as “effortless achievers”.

Hence, knowledge ideals, gender, and educational trajectories seem to be comprehensively intertwined. Furthermore, as discernible in Lövheim (2014) and Mendick et al. (2017), neo-liberal ideas of freedom of choice and applicability seem to merge with prevailing ideas of the subject area as a separate essence. For example, the labour market orientated policy construction of a “pipeline” (Mendick et al., 2017; Moote et al., 2020) seems to reinforce the idea of hindrances (or “leakages”) as part of the path, making it hard to recognise the power relations of the intended goal (c.f. Archer et al. 2017).

The “Social Sciences”

As outlined above, the STEM area of education has attained particular attention both in policy and research, not the least so in relation to gender. Also during the course of this thesis work STEM, represented by the upper secondary Natural Sciences and Technology

programmes, has emerged as an important object of inquiry. However, it has also become obvious that the ideas of academic preparatory STEM education as a demarcated area, with an internal consistency (although including both the Natural Sciences and the Technology programme, which have very different recruitment bases (e.g. Broady & Börjesson, 2005), and as being in demand, position “other” educational areas as insufficient (c.f. co-study 4). In Swedish upper secondary education this area includes the humanities, economics, and civic education (below referred to as the Social Sciences programmes). However, there are few academic texts focusing choice of the Swedish upper secondary Social Sciences programmes specifically. This is proposedly related to the perception of the relatively un-biased recruitment patterns of the programmes on an aggregated level. For example, when following up on the biased recruitment in upper secondary school, Svensson (2001) concluded that the Social Sciences programme predominantly recruited from the mid-range social strata, and that the differential between the lower and upper strata was small (p.169). Furthermore, although an overrepresentation of girls within the social sciences programmes is noted, it is not further problematized.

In a broader international context, there is a field of research concerning gender and attitudes towards Economics education (e.g. Brückner, Förster, Zlatkin-Troitschanskaia, et al. 2015). Within this context, Jüttler and Schumann (2019) conclude from a sample of Swiss upper secondary students, that the decision of female students to study Economics in higher education is more dependent on knowledge, skills, and interest in the economics subjects than the decision of males. Furthermore, the study provides indications of females being more interested in the Law specialisation.

Also, in a recent article using data representing Italian students, gender segregation in higher education is analysed (Barone & Assirelli, 2020). One major finding of this study is that tracked secondary choices mediates gender differences in access to higher education humanities and social sciences to a high degree. Also, although not mediating gender differences, the results of the study imply that assigning importance to higher career prospects have a

negative effect on choosing the humanities or the social sciences in higher education.

On the perception of the social sciences as unbiased Sandell (2007) outlines how some of the programmes within the area are perceived by lower secondary, year-nine pupils as “gender neutral”. This neutrality is constructed in relation to programmes that are expressed by the pupils to be feminine and masculine respectively. Choosing an academic preparatory, social sciences programme, hence, is presented as a strategy for both boys and girls to diverge from gender norms without transgressing the (perceived) gender order.

Another conclusion drawn by Sandell (2007) is that both boys and girls distance themselves from feminine-coded, upper secondary options. This result is somewhat contrary to large-scale evaluations of student recruitment, where masculine-coded programmes are more male-dominated (e.g. the Construction programme) than feminine-coded programmes are female-dominated (e.g. the Health Care programme). This pattern, as Hedlin (2014) proposes can be related to how there is a pull for male staff in care related occupations. In the second study comprised by this thesis, this tension is also encountered taking example from the male dominated Construction programme on the one hand and in the Media programme on the other hand. In the following section, research concerning upper secondary vocational education in general, and the Construction programme in particular, is presented. The Media programme, however, has not attained any specific interest in Swedish educational research. This presumably, because of the programme being considered as a passing trend; implemented in 1994, criticised for its lack of applicability early on (e.g. Wikdahl, 1996), and then subsumed by the Social Sciences programme in 2011.

“Vocational” education

Research concerning Swedish upper secondary vocational education and training constitutes a vast field, spanning from didactics to policy analyses. While this thesis only concerns the vocational programmes of upper secondary school on a highly aggregated level (co-study 1), and as an example of how discourses of applicability and

employability might have consequences for student recruitment patterns (co-study 2), the subsequent presentation is brief and focused on the academic/vocational divide.

Swedish upper secondary vocational education has been integrated with academic preparatory education since the reform of 1971, with the aim to reduce social class biases between traditionally academic preparatory and vocational education (c.f. Lundahl et al., 2010) as well as to provide the labour market with a skilled workforce. However, as Nylund (2013) argues, integration as a structuring principle for vocational education reforms was pushed back in the 2000s. Before the upper secondary reform of 2011, vocational education was instead discussed as being too “theoretical” by the newly appointed right wing government. Nylund outlines how this depreciation of theory in vocational education is based on the myths that 1) youths enrolled in vocational education have little interest in “theoretical knowledge”, and 2) the theoretical content has a negative effect on student completion (Nylund, 2013, p.58). These assumptions, Nylund proposes, are part in the formation of the new upper secondary school curriculum in 2011 where the generic courses within vocational education was heavily reduced. This enforcement of a more distinct academic/vocational divide, also risks to reinforce pre-existence social class differences by producing an asymmetric distribution of knowledge as well as limiting social mobility.

Nylunds’ myth of the vocational student as uninterested in “theoretical” knowledge is derived from Berglund’s (2009) thesis, where the upper secondary Construction programme is made an example of how the dichotomy of theory and practice structures how we understand and organise vocational education but also, how the “vocational student” is positioned. In Berglund and Loeb (2013), the “new” practices of vocational education after 2011 are investigated. In this article, Berglund and Loeb problematize how notions of some students being (exclusively) “practical” and “un-motivated” guided the stratification of some vocational programmes into the traditional “school based” education, apprenticeship education, and vocational introduction. The writers also highlight how the last two were introduced in order to increase employability. Thus, after the 2011 reform, there seems to be an additional division made in the upper

secondary school system based on a more distinct delineation between school and workplace, as well as on a distinction between knowing and being. In relation, Nylund, Rosvall, and Ledman (2017) conclude that knowledge in VET programmes is context-bound and that behaviour regulation is in focus.

Furthermore, from their studies of the apprenticeship education and vocational education, Berglund and Loeb (2013) conclude that the carrying out of new VET practices is shaped by “historically pre-figured practices” (Berglund and Loeb, 2013, p.146). This insight in how reforms are carried out in relation to material conditions and previous practices, I propose, have implications beyond VET education. This can be exemplified by Beach (1999), who claims that the very idea of meritocratic access and a common generic knowledge base in the upper secondary school of 1994, is chimeric. That is, the daily practices of programmes are inherently different - and differentiating - while it builds on ideologies of the “gifted and less gifted practices and needs, of the demands of academic education and the demands of vocational education” (p.31). These practices are also salient in how students in academic preparatory programmes position themselves as superior to vocational students (Beach & Johnsson, 2015). The above has implications not only for understandings of the reproduction of social class for the issue of gender biased recruitment to vocational education, which has been withstanding over the three major reforms of Swedish upper secondary school. That is, the understanding of the differences inscribed in programmes and programme areas, draws attention to the entanglement of the semiotic and material conditions that reproduce power relations in education (c.f. Paechter, 2002, p.52 above).

As previously referred to, large-scale recruitment research has shown how Swedish upper secondary education is deeply segregated by gender. This division is most salient for the vocational orientated programmes. One possible explanation is provided by Dryler (1998), who from a logistic regression analysis of two Swedish cohorts born in 1972 and 1976 concludes that parents’ field of work or educational orientation seems to affect educational choices. This same-sector effect is however only statistically significant for boys’ educational choices in relation to their fathers, not for girls’ in relation to their

mothers. This conclusion, thus to some extent support the findings of Sandell (2007, p.20 above) that “feminine-coded” programmes attain less status than “masculine-coded”.

Confining divisions

From the above review of previous research, a common theme seems to be the consistent and continuous impact of social class and gender on upper secondary choice. This impact is recognised as related to home environment, to identity work among young people, to codes of masculinity and femininity permeating subjects and subject areas, as well as to materiality and traditions. Another key point that emerges is that the distribution of knowledge across the area of upper secondary education has been, and still is, skewed. In relation, one reoccurring result is that the organisation of schooling, regardless of reforms, seems to privilege the already privileged (c.f. Lidegran, 2009). Another conclusion that can be drawn in relation to the above, is that Western knowledge ideals and interrelated dichotomies of masculinity/femininity and mind/body are entangled in the organisation of Swedish upper secondary school. These entanglements, it appears, are also highly present in students’ reasoning around educational choices (e.g. Holm, 2017).

Additionally, I argue, the dichotomous thinking about upper secondary education is also discernible in how researchers approach the upper secondary area. Inquiries are often focused on a specific programme (e.g. the Natural Sciences programme) or a specific relation (e.g. between the “academic” and the “vocational”; the “male dominated” and the “female dominated”). In the co-studies of this thesis, these divisions are also highly present. However, as outlined in the forthcoming chapter, there is also an attempt to present an alternative methodological approach which proposedly can shift the lens and provide possibilities of thinking “otherwise” (c.f. Barad 2014) about the programme organisation in Swedish upper secondary school.

Chapter 3 Methodology

“/.../ creativity is not about crafting the new through a radical break with the past. It’s a matter of dis/continuity, neither continuous nor discontinuous in the usual sense. It seems to me that it’s important to have some kind of way of thinking about change that doesn’t presume there’s either more of the same or a radical break.” (Barad, in Juelskjaer and Schwennesen, 2012, p.16)

This thesis includes questions of how and for whom upper secondary options are shaped in policy, questions of who actually chooses these options, as well as questions of how options and choice relate (c.f. p.26, above). One central objective for the following chapter is therefore to assert the standpoint from where these questions were asked.

Although not made explicit in the co-studies, the concepts of “entanglement” and “diffraction” as developed by feminist theorist and physicist Karen Barad (e.g. 2007; 2014; also Haraway, 2004) are illustrative for the approach taken to the thesis’s empirical sources. By the concept “entanglement” the world is viewed as levelled, with no pre-existing (given) separations between nature and social realms (Barad, 2007). The departure in “entanglements” is closely related to the assemblage approach (Deleuze & Guattari, 1987) presented below. Together, these frameworks form a way of thinking about relations among policy, options and choice as clusters that are in continuous movement. Also, this approach entails that knowledge production never can be separated from being in the world. Consequently, the researcher cannot break away from their entanglements and take an inherently new approach. Instead, paradigms and traditions must be used to think “anew”. This way of thinking of change, can by Barad’s terminology be described as a diffractive approach.

A diffractive approach is by Barad illustrated as the optical phenomenon of light bending around or spreading through objects. Unlike a reflection, which replicates “the same” (e.g. in a mirror), the

bending or spreading of waves through a specific lens, result in them disturbing each other. By moving the lens, new patterns are produced, although still being constituted by the same physical matter (Barad, 2014). By using diffraction as a figure of thought in this thesis, policy texts and large-scale data were in the analytical process viewed as produced for specific reasons in specific contexts, but also as co-constituting new upper secondary realities. Hence, policy and large-scale data have been approached as inseparable from the conditions under which they were produced, as well as from the world that they are co-constituting.

By the view of the world as entangled, research is about making “agential cuts” and momentarily stabilize an object of inquiry (Barad, 2012; 2014). When approaching the empirical material, these cuts were made based on the overarching aim to deepen knowledge on “student recruitment”. Furthermore, alternative lenses (formed by knowledge of the conditions under which the material was produced, empirical findings, and theory) were applied as questions in the analyses. Through these diffractive questions, alternative patterns emerged. Thus, the conclusions of relations among policy, options, and choice drawn in the thesis, are contingent on the shape of the lenses that were applied.

Also foundational for the thesis is the understanding of western knowledge ideals as produced through intersecting dichotomies of for example masculinity/femininity, mind/body, and rationality/sensibility. This standpoint is developed in relation to education in for example Paechter (2002), who highlights how hegemonic gender relations (also Connell & Messerschmidt, 2005; Paechter 2007) leaves the positioning of subjects and subject areas (e.g. Mathematics, Physics) as “free” or “neutral”, uncontested. By this perspective on power, the shapes and positions of the lenses through which the world is produced and interpreted, are viewed as limited by hegemonic “truths”.

As outlined in the beginning of the essay, this thesis is part of a long tradition of student recruitment research and consequently also entangled with and limited by prevailing ideas and relations of power. The methodological approach presented here is thus at the same time part of a continuing tradition, and an attempt to shift the lens by

analysing its constituting elements. Therefore, the subsequent sections will 1) situate the thesis in the methodological approaches taken in previous, large-scale student recruitment research, and 2) outline the specific concepts used in order to deepen the understanding of the relations among policy, options and choice.

The entanglements of policy and recruitment research

This thesis departs in the tradition of the longitudinal studies of upper secondary choice, represented above by for example Härnqvist (1958), Svensson 1998; Erikson and Rudolphi (2010). However, as indicated by for example Husén and Härnqvist's contributions to the Swedish reform history, the relation between Swedish educational policy and research is deeply entangled (c.f. Husén, 1989). To deepen the understanding of the formation of Swedish upper secondary education, the conceptual models framing the policy related inquiries are delineated in the following section. Also, other models, not as closely linked to policy making are presented.

Models in upper secondary recruitment research

Following the findings of Boalt (1947), Husén (1946), and Härnqvist (1958) that social background has had great impact on educational trajectories, the opportunity to advance in the educational system was operationalised as facilitated or hindered by different factors (e.g. families' or schools' economic resources) and psychological (e.g. home environment, school environment) aspects (Härnqvist, 1958). By this, a model was formed to systematically evaluate the impact different school reforms had for equal educational opportunities (see Svensson 2011). This "two generation model" departs in the positive correlation between education and living standards. Living standards are in turn proposed to affect economic and cultural aspects of children's home environment, which both have an effect on their immediate wellbeing and their individual prerequisites for educational attainment, and their aspirations. By the two generation model, specific operationalisations into what was considered as measurable were thus performed, and these variables are still used in educational

large scale research in varying forms. Home environment is measured by for example parents' education, economic status, and occupation. Also used are immigrant background factors (e.g. parents born outside Sweden, time living in Sweden). When analysing the impact of background factors for educational choice within this framework, the theory of primary and secondary effects (Boudon, 1974) has been used (e.g. Jackson, Jonson, and Rudolphi, 2012). The theory of primary and secondary effects proposes that children from privileged homes attain higher grades than children from less privileged homes. Furthermore, when controlling for grades, children from privileged homes have a higher probability to choose education which allows for vertical advancement in the school system.

The focus on vertical mobility and access to higher education can be traced back to the early work on the "ability reserve" by Husén (see Husén & Härnqvist, 2000). The empirical findings on the relation between cognitive abilities, educational trajectories and socio-economic background factors among Swedish army recruits, highlighted how the pre-existing, stratified, education system in Sweden had a negative effect on the possibilities for children from less privileged family backgrounds to proceed to higher education (c.f. Husén, 2002, for a retrospect). Upper secondary education thus was suggested to function as a mediator between the nine-year comprehensive school and higher education. By this function it was also deemed necessary to follow up on student recruitment and potential biases in the system. In subsequent inquiries the opportunity to advance in the educational system was operationalised as facilitated or hindered by social background factors and the impact of school reforms was systematically evaluated by the two-generation model (e.g. SOU 1980:30; SOU 1986:2-3). Up to the 1994 reform (but to a lesser extent beyond), Swedish education policy at large was explicitly informed by research rooted in the two-generation model, using large-scale data collected within the Individual statistics project (Härnqvist & Svensson, 1973) which later was merged with the Evaluation through follow-up project (e.g. Härnqvist, Emanuelsson, Reuterberg & Svensson, 1994; Svensson, 2011)

In research using data gathered within the above projects, the outcome variable in relation to upper secondary choice, has been a

specific programme, or more often a subject area (e.g. Svensson, 2001; Erikson & Rudolphi, 2011). For example, the admission to “academic preparatory programmes” in contrast to “vocational programmes” has been viewed as an important inquiry in relation to recruitment because of the different trajectories presented by students from the two areas respectively after completion (e.g. Reuterberg & Svensson, 1994). Also, the horizontal differentiation processes of upper secondary education are often highlighted. Here the outcome variable is separated into two categories; as either being orientated towards natural sciences and technology (NT) area or orientated towards the humanities, the social sector, or economics (HSE). Thus, a four field model, categorizing Swedish upper secondary education has been developed in policy (see app. 2). In chapter 4 below, the four field model will be returned to as a constituting part of how upper secondary school has taken form.

Although the impact of the two generation model for Swedish recruitment is considerable in both policy and research, there are also other theoretical models which have been applied on large scale upper secondary student recruitment research. Perhaps most salient is the bourdieusian approach referred to above (p.31), where family background accordingly is viewed as different forms of capital (e.g. Broady, 1998; Forsberg, 2015), yet similarly operationalized as in the two generation model. By using the concept of fields, however, the rather static operationalisation of programmes and subject areas in the four field model is challenged. It can be argued that approaching upper secondary education as a social field, contributes to the understanding of how programmes and subject areas are perceived as placed in a hierarchical order, and at the same time, attain status by the groups of students enrolled (e.g. Palme, 2008). By the social field approach, there hence is an opening for understanding the outcome of upper secondary choice as contingent, as shifting in relation to the “choosers” as well as to contextual factors.

Results from large scale research applying either the two-generation model or the capital-field framework on Swedish upper secondary student recruitment are quite consistent. In general, over the last 50 years, Swedish upper secondary education continuously differentiates on unequal grounds horizontally as well as vertically. As

both Fjellman (2018) and Forsberg (2015) suggest, in spite of the vast changes in the upper secondary system, differences between groups remain or are even reinforced. However, one of the limitations in previous upper secondary programme recruitment is the focus on either the individual background factors, or the structure of the field. This limitation is, proposedly, related to the limitations of the theoretical frameworks used. On the one hand, the “two-generation” model and the theory of primary and secondary effects, suggest a perspective of “free agents”. That is, barriers for meritocratic differentiation can be removed by structural changes, such as the “access reform” in 1994, when all upper secondary education provided the basic entry requirements for higher education. On the other hand, when applied on large scale data, the bourdieusian perspective on social reproduction seems to highlight the system as a strong determinant, providing explanations for the stable biases but less so for the change patterns that occur.

In conclusion, as for previous large-scale upper secondary recruitment research, this thesis includes students’ social background factors as well as the options produced and made available in upper secondary education. However, within this aim there is also an intention to broaden the object of inquiry and shift the lens in relation to upper secondary student recruitment. By approaching recruitment as complex and reciprocal relations among educational policy, options, and choice, conceptual models based on relations between structure and agency are challenged. Similar arguments for a broadened methodological framework for understanding recruitment biases, have been expressed before. For example, Lidegran (2009) claims that statistical analyses of educational trajectories cannot be limited to what she calls “inherited capital” (e.g. parents’ education). Instead, she proposes that students’ “acquired” capital in terms of grades but also in terms of previous choices are important. That is, youths’ educational trajectories are dependent on family background, the organisation of education, but also (and proposedly most importantly) how youths use the system. By this, Lidegran (2009) seems to focus individual agency over structural factors, and concludes that a large amount of inherited capital seems to narrow the educational pathways to include particular (high status) upper

secondary programmes, and higher education institutions. Furthermore, boys seem to use their acquired capital in an even more specific way than girls.

Similar points are made by Elgqvist-Salzmänn (1992), who outlines how research on higher education recruitment and participation from the 1950's up to the early 1990's mainly had two main aims, one to identify the "ability reserve" and the other to measure success related to completion and labour market earnings and positions. By these incentives, she states, "Quantitative research models most suited to "straight roads" dominated." (p. 46). These straight roads, Elgqvist-Salzmänn argues, were mainly tread by men and she concludes that by leaving the "winded routes" of education out, feminist analyses of educational trajectories are made impossible. Thus, Elgqvist-Salzmänn's argumentation implies that by revisiting the fields to which students are recruited, and thereby form a more complex model, feminist recruitment research can be brought to the table.

However, this line of argument also presupposes educational options as rather stable entities where recruitment biases can be detected. My point here is somewhat different. That is, I argue, educational options are constituted by different elements (where "recruitment bias" is one), and are thus not possible to understand from a fixed model. Instead, the "winded routes" of education must continuously be re-conceptualised in relation to context.

So, the influence of the research tradition following Husén and Härnqvist, with its specific conceptual framework, has not only been affecting academic research but was also intertwined with the political process of reforming the Swedish education system at large. Because of its notable impact, a tension appears when attempting to present previous research distinguished from providing a background for the Swedish upper secondary reform history. That is, I argue, while large-scale student recruitment research is intertwined with the policies and proposals surrounding the upper secondary reforms, it functions both as a mean for evaluation, and as guiding ideas of what the student recruitment problem is.

To diffract these entanglements, student recruitment is further explored in Chapter 4. Thus, Chapter 4 provides an analysis of Swedish upper secondary reforms that is formed by questions of what

constitutes the problem of “student recruitment”. The analytical lens for this inquiry is structured by Bacchi’s “What is the problem represented to be” resource for a critical analysis of policy (Bacchi, 2012; Bacchi & Bonham, 2014), and a deepened conceptual framework guided by the policy assemblage approach (Savage 2018; 2020; Deleuze & Guattari, 1987). These two perspectives are presented below.

The assemblages approach

The conceptual framework of “assemblages” is developed in the work of French philosopher Gilles Deleuze together with psychoanalyst and political activist Félix Guattari (e.g. Deleuze & Guattari, 1987). The assemblages approach share a common ground with Barad’s thinking in the relational, non-dualistic approach. For the thesis, Barad’s entanglements and the concept of assemblages are considered as interchangeable. Also, the “exteriority of elements”, which is further elaborated on below, includes the potential “otherness” that also is enfolded in diffraction. The commensurability of Barad and the framework of Deleuze and Guattari’s has been debated (critiqued in Hein, 2016; responded to in Murriss & Bozalek 2019), but is also established as viable in previous academic work (c.f. Lenz-Taguchi, 2012; Thiele, 2016).

One main reason for adding the assemblages framework to the diffractive perspective, is that it has been applied to and developed in relation to policy research before (e.g. Murray Li, 2007; Savage, 2018; 2020). For co-studies 2 and 4 of the thesis, the assemblage framework offers some productive concepts for a diffractive analysis of text and large-scale data. Also, in Chapter 4 of this essay, the concepts included in the assemblage framework are applied to diffract the patterns that emerge from the WPR analysis (c.f. “diffracting diffraction”, Barad, 2014).

An assemblage, as presented in Deleuze and Guattari (1987), can be understood as a nodal point where different elements connect and shape each other into a specific form. As implicated by Murray Li (2007) this specific form is a result of particular power relations where some ways of shaping an assemblage become legitimised over other.

For example, in the second co-study of this thesis, local labour market conditions, ideas of applicability and skills, and the distinction between academic and vocational education, are drawn together and shape an idea of a “valued space”. This valued space is in this particular context represented by the upper secondary Construction programme. Also, the value of this space seems to be recognised by the students, illustrated by a momentary change in recruitment patterns. Hence, at this specific point in space and time the national push for employability and applicable education during the 2000s, as well as the need for skilled workers within the construction section in the investigated context, cluster with local conditions and ideas of what vocational education, and specifically the Construction programme can offer, into an “option-assemblage”. In another setting, the elements included in the above example could have been taken other shapes in relation to each other, and thus produced another assemblage. That is, for example, if employability had been argued as dependent on a university degree, the “valued space” of upper secondary education would probably be localised somewhere else.

The above points at an important aspect of an assemblage, namely the exteriority of its constituting elements (Deleuze & Guattari, 1987). Exteriority in this sense, means that an element never can be reduced to the specific shape it takes in assemblage. Instead, and in adherence to Barad’s concept of diffraction, elements always carry the potential to be shaped differently. For example, “girls” as an element in Swedish upper secondary recruitment policy, is shaped as “absent potentials” (e.g. in SOU 1997:107) in relation to the statistical finding that “females” are underrepresented in STEM (c.f. co-study 4). However, in concomitant education assemblages, “girls” have also been shaped as for example “successful” in relation to the gendered attainment gap (Ringrose, 2007), or “in power” (Öhrn, 2000). Hence, “girls” can take on inherently different shapes, depending on what elements that take part in co-constituting the specific assemblage. Yet, when “girls” are articulated as absent on the one hand and successful on the other, this is done in relation to masculine coded areas and “boys” (shaped as present as well as underachieving). That is, the

potential lenses through which “girls” can emerge, appears to be constricted by a prevailing gender order (c.f. Paechter, 2002).

Another important aspect of the concept of assemblage is the specific notion of desire. That is, as outlined in for example Colebrook (2002), assemblages are productive forces. By this understanding, an assemblage is at the same time being produced by desire and producing desire to be part of it. For example, the positioning of the Construction programme as a “good” option emerges from desires of economic prosperity and young people being engaged in work-life (co-study 2). The option-assemblage that is shaped here, also seems to produce desire to be part of it. That is, for three years in the mid-00s the grade point averages increases and youths from homes with higher education cluster in the Construction programme. Hence, by understanding assemblages as a desiring production it is possible to further discuss why some students cluster in a specific educational area, in a specific context. Additionally, while the relations between desires and the desired are constricted by pre-existing power relations (c.f. Paechter 2002) it is also possible to deepen the understanding of why some groups of students are found in areas that are less valued.

Policy assemblages

Policy assemblage theory (Murray Li, 2007; Savage, 2018; 2020), derived from the work of Deleuze and Guattari, include specific aspects that are related to the formations of national policies. That is, the concept of assemblage enables a specific relational thinking, which horizontalises the parts and whole of a process (DeLanda, 2006). For the policy analysis, this means a discharge of both top-down as well as bottom-up perspectives, which both risk an understanding of power relations as static (Savage 2018; 2020).

Policy assemblage theory also outlines some specific aspects of exteriority (Savage, 2020). As already outlined, exteriority implies an openness of the elements which form a specific assemblage. In relation to policy analyses, this openness means that for example elements such as “gender”, “options”, and “choice”, on the one hand, cannot be reduced to the form they take in a specific formation of a

political incentive (e.g. the necessity to recruit more girls to the STEM-field). The terms are always to some extent autonomous from their relations and thus also open to be shaped differently in continuous and contingent processes. On the other hand, the specific elements constituting a particular policy assemblage cannot explain the whole. That is, it is in the relations knowledge is produced (c.f. Müller 2015; DeLanda 2006). Furthermore, exteriority also suggests that the researcher becomes an active part in the analysis, also an “open element” which by necessity will affect (and be affected by) the elements of an assemblage (c.f. Honan & Bright, 2016).

Policy assemblage theory also includes heterogeneity as a foundational concept (Savage, 2020). Heterogeneity in this particular sense, means not only that the components of policy are various and shifting, it also refers to the levelling of the world (DeLanda, 2006). That is, when analysing assemblages, there can be no assumptions of agency as emanating from specific actors (e.g. from individuals, organisations, or political parties). Rather, agencies are emerging in the relations among elements (c.f. Müller, 2015 who problematizes the English translation of assemblages as somewhat reducing the connotations of Deleuze and Guattaris “agencement” in French). Furthermore, within the concept of heterogeneity there are no pre-existing divides between for example humans and ideas, between materialities and semiotics (Müller 2015; c.f. Barad, 2007).

Savage (2020) also includes flux in the concept of heterogeneity. In relation to the policy analysis comprised by this thesis, which spans over more than fifty years, flux becomes important in understanding the reforms of upper secondary education which seemingly relate to each other in a continuous flow, as well as the irregularities and contradictions of the processes that produce particular programme structures. That is, flux enables an understanding of the Swedish reform history as both consistent and contradictory. Flux also proposes that flow and disturbances not necessarily are contrary movements; that stability and change occur simultaneously.

Perhaps most importantly, policy assemblage theory (Savage 2018; 2020) especially presses the legitimacy aspect of assemblages. That is, through an assemblage analysis particular attention is paid to power relations and how agencies emerge in the policy process. For the

empirical studies comprised by this thesis this attention has been consistent. The four studies are in different ways outlining how elements such as “equal opportunities”, “differentiation”, “mobility”, “applicability”, “subject areas”, and “gender”, are carrying stability as well as guiding change. Through the contingent re-formations of these elements, new actors (e.g. “the student as customer”) as well as new behaviours (e.g. applicability focused specialisations) emerge. Also, which is the main concern for the empirical studies, the policy assemblages create new realities; new upper secondary options that are enabling mobility for some groups of students, while restricting others.

What is the problem represented to be?

As outlined, this thesis is founded in a view of the world as constituted by entanglements of elements. Hence, the demarcation line between the thesis’s methodological setting and the methods used for the empirical analyses, has been partly fluid. For example, in relation to the analyses performed throughout the co-studies the assemblage approach is both providing a theoretical framework and a way of making visible clusters that are shaped and reshaped over time. The openness of the assemblage approach is useful for a relational, non-linear, understanding of policy and student recruitment patterns. However, a more structured guide for the reading of texts could proposedly contribute to the approach.

Therefore, in Chapter 4 of this essay the “What is the problem represented to be” framework for a critical reading of policy is applied to deepen the knowledge of “student recruitment” (Bacchi, 2012). The framework is founded in the general field of discourse analysis, where the “problems” of policy are understood as representations which are produced by a particular set of assumptions, and through particular power relations. Also, when a specific problem representation is constructed in policy, other aspects of the issue at hand (e.g. equal educational opportunities) are left unproblematized or silenced.

As a point of departure, Bacchi (e.g. 2017; 2012) proposes an understanding of “problematization” as a term with two dimensions:

as both a method of critical analysis and as referring to a “historical process of producing objects for thought” (Bacchi, 2017, p.1). In close adherence to Foucaults genealogical analyses, Bacchi (2017; 2012) also suggests that policy inquiries are to be conducted as a “history of the present”, that is by starting in 1) asking what the problem is represented to be, and then 2) dismantle its status as a “true” description of a pre-existent problem and instead ask which assumptions that underpin the problem representation, and 3) how this representation has come about. Also in relation to the problem representation the WPR model poses the question of 4) what is left unproblematic; of where the silences are, and if the problem can be thought of differently (Bacchi, 2012).

The first three questions in the WPR-model thus provide a foundation for policy inquiries where policies are understood as involved in constituting the “problems” they address. The fifth and the sixth question of the WPR-model are both referring to this productive aspect of policy; asking 5) what effects that are produced by a particular representation of a problem, and 6) how and where this representation of the problem has been produced, disseminated, and defended and also how it has been/could have been questioned, disrupted and replaced (Bacchi, 2012). Policies, hence, are seen as practices from which certain ways of acting in the world emerge as more intelligible than others (Bacchi, 2017).

As Bacchi (2017) denotes, the WPR approach allows us to gain a deeper understanding of how policies are organising society into specific categories (of for instance “women”, or “men”; “academic” or “vocational”) in relation to which people are encouraged to conform. The methodological framework offered by the WPR model also adds dimensions to the overarching questions asked in the integrating essay: First, when asking how educational options are formed in policy, it is implied that these options cannot be viewed as distinct entities (or as having any essence) but as “products of plural and contingent practices” (Bacchi, 2017, p.36). By this, the objective of the first question guiding this thesis (p.26, above) is to understand how specific categorisations of knowledge have come to be, rather than to present for example the curriculum for a specific programme in a particular context. Second, and intertwined, when asking how the

implemented options relate to social differentiation in upper secondary programme choices there is an underlying assumption that also “differentiation” is a problematisation (in the Foucaultian sense) emerging from policy practices.

Although the WPR model is only made explicit in this integrating essay (and not in the four empirical studies 1-4), there is a strong focus in these separate co-studies on how policies are producing categories in relation to which students are to respond. Through an evolving conceptual framework, the included empirical studies are challenging the academic/vocational split (co-study 1; co-study 2), the “Natural Sciences” as one, coherent field (co-study 3), as well as mapping how particular options (programmes, subject areas) are produced and reproduced in relation to gender categories (co-study 2; co-study 4). However, the focus in the WPR-model is mainly on policy as text, and in line with previous new-materialist critique (e.g. Barad, 2003), it tends to leave the material (bodily, physical) consequences of the semiotic relations out. This critique has also been met by a development of the model, adding the fifth and sixth questions of material effects and resistance, elaborating on Foucault’s concept of “discursive practices” (Bacchi & Bonham, 2014). Nevertheless, while a distinction is made between the (semiotic) problem representation and the “material effects” of it, the model still seems to separate the semiotic level from the material, leaving little room for understanding the semiotic-material entanglements of policy (c.f. Savage, 2018). That is, for this thesis the problems represented in policy are viewed as producing specific programme structures and particular options that can be chosen. Thus, upper secondary reforms do produce “realities” in terms of instigating the options to which youths can respond. However, the responses to the different options are part of a reciprocal and contingent process of forming new options, partly mediated through large-scale evaluation projects intertwined with policy. Proposedly therefore, the last two questions of the WPR model cannot be answered in relation to either the analysed policy texts or the student recruitment patterns, but by deepening the understanding of their continuously shaped and reshaped relations.

Approaching the empirical sources

For the thesis upper secondary policies, news-paper editorials, and student recruitment data have been analysed. As outlined in the previous section, these empirical sources have at the same time been viewed as artefacts produced through particular lenses, and as “becoming” through the research process. That is, the empirical sources were approached as inseparable from the conditions under which they were produced, but also as attaining new meanings through the analyses. In the following, the empirical sources are presented, and the processing of data is described and discussed.

Policy texts and registry data

As presented in Chapter 1, the aim for this thesis is to deepen the knowledge of “student recruitment”, both as a reoccurring problem in policy and as a representation of educational trajectories (also referred to as “recruitment patterns”). Hence, there are two main sources of information that contributes to the analyses. For the analyses of options formations, a vast material of Swedish policy texts and registry data has been used. The policy material consists of Swedish government official Reports (statliga offentliga utredningar, SOU), and some of the directives (regeringsdirektiv) and bills (propositioner) related to these reports (for an overview, see appendix 1). In co-study 2, the constitution of options is analysed in relation to editorials in the morning news-paper of the investigated context.

For the analysis of student recruitment patterns, four different data-sets have been created, containing information that corresponds with their respective research questions. The data constituting these records were derived from the Gothenburg Educational Longitudinal Database (GOLD), where information from different sources are stored and documented. The registry data comprise information on individuals registered as Swedish citizens at the age of 16, for 25 birth cohorts (spanning from 1974 to 2010) (app. 1). The cohorts for each study respectively have been chosen in relation to the results of the policy analyses. Also, the specific categorisations of outcome variables and choice of social background variables were constructed in relation to the results of the policy analyses, but also in relation to

the methodological framework presented above. In the final section of this chapter, I will return to these choices in a broadened description and discussion of registry data, and the statistical methods used for the thesis.

Text analyses: methods and implications

The official government reports that have been analysed span from 1943 to 2008, and are available in the digitalised archive of the Royal Library (up to 1999) and the official government site (after 1999). For co-study 1, 3, and 4, and the integrating essay, all policies concerning upper secondary education have first been read in order to delineate their main themes and objects of inquiry. By the diffractive approach, the key elements linked to recruitment and options, were first mapped out and “stabilised” as objects of inquiry. By this first reading, specific research questions were articulated, shaped by previous research and theory, as well as by the themes and objects of inquiry in the policy texts. Through the lens shaped by the first reading, additional analyses were performed in an attempt to make visible some alternative understandings of the relations among elements (e.g. ideas, assumptions, and material conditions) that have formed Swedish upper secondary education. In co-study 2, news-paper editorials were analysed. The analysis of the editorials was also performed in line with the diffractive approach taken to the policies. For this study the research questions were shaped by the concepts of “desire” and “imagination” (c.f. Deleuze & Guattari, 1987). For the analysis by the WPR approach included in the integrating essay, the same reading strategy has been used, however structured by the pre-defined questions comprised by Bacchi’s method for a critical reading of policy.

The assemblage approach, I propose, opens up for a dialectic and open reading of policy which enables the researcher to shift the lens and see for example how programmes like the Social Sciences (co-study 4) or the Media programme (co-study 2) are defined in relation to concomitant assemblages of valued education, that is to say they become defined in terms of “what they are not” (e.g. non-Science, non-applicable). The open structure of an assemblage analysis

however also entails a risk of overlooking important aspects. Yet, by including all government reports on upper secondary education in the first stage of the analyses, the risk of omitting significant information is reduced. Also, by continuously and critically relate the findings to the existing body of research on upper secondary education policy, the claim of the resultant interpretations as valid, is reinforced.

The introduction of Bacchi's questions for the analysis in Chapter 4, partly stems from the assemblages approach being so open. However, as further discussed in relation to the analysis, the pre-articulated questions risk to solidify the object of inquiry. However, it appears like the two models can contribute to each-other: The WPR questions can structure the analysis, while the concept of assemblages can be used to further diffract the outcome of the analysis.

Bridging data

As part of the analysis of policy in this thesis, one major line of inquiry is the role of policy informing recruitment research, and consequently also of large-scale data (i.e. extensive sets of information on a particular population) in reforming Swedish upper secondary education. "Student recruitment patterns" produced through the analyses of large-scale data are thus both introduced in the analyses as elements in the shaping of Swedish upper secondary education, and as the outcome of the large-scale data analyses performed in the co-studies of this thesis. For the subsequent sections, the process of working with large-scale data is presented and discussed in relation to the methodological framework presented above.

Large-scale data: methods and implications

In the introduction, the thesis was situated within a long withstanding tradition of evaluating the impact of social background on educational opportunities. As part of this tradition, co-studies 1- 4 have explored how parents' educational level and gender relate to upper secondary choices through information compiled from Swedish national registry data. However the attention throughout the empirical studies has shifted from investigating the impact of social background factors on educational choice, to a focus on what constitutes the upper

secondary options that are made available for young people. That is, progressively in the co-studies the ideas and assumptions of relations between social background factors and access to “valued education”, emerging in the text analyses, are explored and challenged by analyses of large-scale data.

Similar to the diffractive approach (Barad, 2014) taken to the text analyses, the analyses of data are organised in two, overarching, steps. The first step in the data analyses has been to map out the elements that have been part in forming Swedish upper secondary education. With particular focus on how previous student recruitment research have shaped the organisation of programmes and options, critical questions were then articulated and applied on the large-scale registry data available for the thesis. This approach to large scale data is thus explorative, and inherently theory based. That is, the foundational standpoint taken here is that large-scale, student recruitment data cannot be considered as mere reflections of the world. Rather, when presenting and discussing registry data and the explorative processing of them in the following sections, the outcomes of choice are analytically, and momentarily (Barad, 2007), separated into on the one hand their observable representations (i.e. the educational domains, programmes, and options), and on the other hand the lenses that shape them.

National registry data

The term “registry data” can denote a wide range of sources, including for example medical data bases, historical archives, information on tax, study loans, and etcetera (see SOU 2012:36). For some registers, data are collected for the purpose of research. One prominent Swedish example is the longitudinal data collected since 1961 within the Individual Statistics, which later was integrated with the Evaluation through follow-up (UGU) project. The UGU data-base has been used for a wide range of research in different areas. Also, these data have been used for policy informing research (see Härnqvist et al., 1994; Svensson, 2011). Other databases are set up for administrative reasons, with the main purpose to follow for example societal developments. The sets of large-scale data that were

constructed for co-study 1-4 respectively, comprise information included in GOLD, drawn from the Swedish Total Population register (RTB) and the National Education register (UREG). This information is population based, obligatory, and linked to personal identification numbers. The accessible data included all individuals registered as Swedish citizens at the age of 16, born between 1973 and 2000. Consequently, the data-sets included a large number of cases (spanning between 80,000 and 120,000 for each birth cohort), and a large number of social background variables, as well as detailed information on choice of programmes, options and subject areas.

Ethical considerations

The data used in the project were anonymised, and did not contain any information classified as sensitive. Also, the analyses were performed at a high level of aggregation, which further precluded the risk of identification. In co-study 2, where small cohorts were included, no results were reported where single individuals are at risk of being traced and de-anonymised. Furthermore, the data were only available during the duration of the thesis project and only to the people who were included in the overarching research project.

However, one aspect of the methodological framework outlined above, is that the researcher is viewed as an entangled part of the researched. Hence, ethics are not just a matter of following given rules or guidelines, but ultimately a matter of being response/able (Barad, 2007; 2014). For example, working with large-scale data can induce a sense of distance to the multifaceted experiences and living conditions of individuals. In this process, I argue, to act in a response/able way includes facing, accounting for, and diffracting the ideas and assumptions that shape the variables that are used as proxies for the entangled elements of life.

Possibilities and limitations of registry data

As outlined, the population based data used for the analyses are collected for statistical reasons, and not primarily for research. That is, the recruitment data presented in the comprised studies can never exceed the limitations set by the registry data compiled from Statistics

Sweden. Thus, the analyses of large-scale data were constrained by the lenses through which the data was originally collected and organised. These limitations, as outlined in this chapter, have also become an important question for the thesis. The following presentation of the possibilities and limitations of performing secondary analyses on registry data that were collected for statistical purposes, is divided into two parts. The first part introduces the variables that were included in the analyses, and in the second part the results of the analyses are discussed in relation to aspects of reliability and validity.

Variables

For the analyses in the co-studies there were two background variables: parents' educational level (co-study 1 and 2), and gender (co-study 2, 3, and 4). Also, to indicate status of educational domains and programmes, students' grade point averages (GPA) from secondary school were used (co-study 1 and 2).

The categorisations of outcome variables were predominantly subject related, however in co-study 1 a variable comprising information on school organiser was used.

Parents' education

Information on highest educational level among parents or primary caregivers (ParEd) is available in twelve categories, spanning between unspecified or less than seven years of formal education, to postgraduate education. In co-study 1, this information is categorised into two groups, one comprising homes with less than two years of higher education and the other two years or more of higher education. This demarcation is made for pragmatic reasons. That is, we know from previous research (e.g. Broady & Börjesson, 2005) that the attainment of two years or more of higher education is a strong predictor for children to choose academic preparatory, upper secondary programmes. In co-study 2, the analysis is performed on a much less aggregated level and the research questions consider specific programmes and not more general domains. To be able to explore differences in student enrolment in more detail, the parents'

education variable is divided into three groups. The first represents parents with less than three years of academic upper secondary education or vocational upper secondary education, and the second academic upper secondary education or up to two years of higher education, and the third parents with two years or more of higher education.

The educational level of the Swedish population has increased over the 40 years in focus here. When comparing how students are distributed over different educational alternatives over time, it is important to acknowledge the change in group sizes within the parents' education variable. For a descriptive comparison over a long time span, such as in co-study 1 and 2, this means that for example an increase in the proportion of students from highly educated homes within a specific area cannot be taken at face value. Therefore, a distribution ratio was calculated by dividing the share of group within the option with the share of the group within the total population.

$$\text{Distribution ratio}(\text{HEd} \geq 2\text{år; cohort 1974}) = \frac{45}{32} = 1.40625 \approx 1.4$$

Figure 1: Calculation of distribution ratios, example.

The quotient of the division represents the relative share of a group within a programme (in figure 1 youths from homes with two years of more in higher education). A quotient above 1 illustrate an overrepresentation, and a quotient below 1 means that the group is underrepresented. Hence, a ratio of 1.4 denote that there is a 40 percent overrepresentation. Accordingly, a ratio of 0.6 would signify a 40 percent underrepresentation.

Gender

Gender is introduced as a background variable in co-study 2-4. In Swedish registry data, gender is a binary category of male/female (for a widened discussion of this see Lindqvist, Sendén & Renström, 2020). For this study, gender is approached on the one hand in accordance with the use of parents' education level as a variable: we know that if assuming a category of male/female, there will be statistical differences in terms of for example programme enrolment

and grade score averages. On the other hand, however, gender as a social background variable is also approached as a main structuring principle in society (c.f. Adkins, 2003). This principle is part of a hegemonic order which in various ways takes part in shaping youths' way of thinking about their educational choices (e.g. Archer et al. 2020).

Grade point averages

The variable representing students' previous attainment comprises grade point averages from secondary school (GPA). GPA is a percentile transformed score, thus comparable over different grading systems and/or scales. While upper secondary intake primarily is based on grades from secondary school, GPA is used as a status indicator for different domains (co-study 1) and programmes (co-study 2).

Subject related outcome variables

In co-study 1, the outcome variable included all upper secondary National programmes (i.e. programmes where sufficient grades from secondary school are requested). The variable is binary, categorised into traditionally “academic” or “vocational” programmes respectively. This categorisation follows previous upper secondary student recruitment research, except for the Arts programme which for the analysis in co-study 1 is included in the academic-preparatory category. The re-categorisation of the Arts programme is made because of the vast difference in recruitment bases before and after the reform of 1994 and that the Arts programme kept its academic preparatory status after the reform of 2011.

In co-study 2, two specific programmes (the Construction programme, and the Media programme) were in focus. The programme variables included all students within the overarching programmes.

In co-study 3, the smallest units of information (Studievägskoder, “subject codes”) available for students' choice within the Natural Sciences and Technology programmes, were used. While sometimes comprising only a few students per cohort, aggregations were necessary for ethical reasons. The categorisations of subject codes

were performed by an analysis of their nominal description, and then categorised in relation to corresponding fields in higher education (e.g. “Mathematics”).

In co-study 4, subject codes within the Social Sciences area were aggregated into option variables. Similar to co-study 3 the categorisations are corresponding to higher education and labour market fields (e.g. “Economics”).

School organiser

In co-study 1, the recruitment to academic and vocational areas respectively was differentiated on school organiser (public or private). The information on school organiser for the included cohorts was however only available in the variable representing school of leave. Therefore, a school code variable was used to match school of admission with school of leave. By this, information on school organiser was extracted and included in the admission variable.

Reliability and validity

Being a product of consistent measurements and comprising full cohorts on a national level, Swedish registry data are highly reliable. The four co-studies comprised by this thesis took advantage of this reliability in so far that the conclusions were based on descriptive statistics. The choice of using only descriptive methods for the co-studies was made while a detailed description of the field can be argued as crucial for the understanding of outcomes of advanced statistical models. In other words, as Aneshensel (2002, p.1) proposes, all research concerning social interactions must be fully aware of why specific variables are put into a model. Aneshensel’s point is that this question, the question of why, is to be answered from a theoretical ground. In accordance, this thesis attends the (inherently ethical) question of why by departing in well-established empirical findings of relations among social background factors and equal educational opportunities. By using the same measurements for social background as in previous studies, but altering the outcome variables in different ways, alternative associations among gender, parents’ education and educational choices have become observable.

Proposedly, some of the empirical findings presented in the co-studies can contribute to an informed elaboration of more advanced statistical models concerning social background factors and educational opportunities.

By taking advantage of the rich information stored in registry data, it has been possible to reorganise the observed outcomes of choice in various ways and by that also challenge some of the ideas and assumptions that have formed the basis for Swedish large-scale recruitment research. In general, while including whole populations, and missing data being negligible, inferences that are drawn from the descriptive results of the studies are considered statistically significant. However, there were challenges to the validity of the conclusions drawn in the co-studies that were mainly associated to unobserved heterogeneity and attenuation of data entailed by the different levels of aggregation in the analyses. These challenges will be further elaborated on below.

Unobserved heterogeneity

When performing descriptive analyses it is hard to discern the consequences of what in statistical terms is called unobserved heterogeneity. The most pressing example for this thesis was the influence of labour market conditions that presumably affect youths from different social strata differently, as well as the status of programmes. For example, the economic recession in the 1990s had a strong negative impact on Swedish industry in general. Presumably, the recession also had consequences for upper secondary student recruitment to corresponding areas and programmes. Therefore, in co-study 1 and 2, the economic recession is discussed as interfering with the consequences of the reform of 1994. However, the nature and magnitude of its impact remains unclear, and therefore conclusions of possible reform consequences were drawn with caution in the co-studies.

Aggregations of data and assumptions of consistency

In appendix 2, the programme structures of the three different systems spanned in this thesis are presented. Although the

compilation does not include the various subject codes (studievägs-koder) that were used for the analyses in co-study 3 and 4, it still demonstrates how the upper secondary landscape is shifting immensely over time. The shifting programme structure constitutes a challenge for the investigation of reform consequences. That is, as highlighted in SOU 1980:30, to delineate change in the impact of social background factors for educational choice, the outcome of choice must be consistent over time. In the 1980s committee report, the researchers therefore select some of the programmes that they argue to be comparable over time. For the “other programmes”, aggregated categories representing “knowledge domains” such as the “humanities” or the “social sciences” were created. These categories were in subsequent policies used as a matrix of consistent representations of “educational opportunities” (see co-study 4).

So, in the policy informing recruitment research analysed here, there are two main actions taken to reduce the threat of drawing invalid conclusions: assuming consistency and aggregating data. However, for this thesis, upper secondary programmes were approached as not only shifting in terms of content or of what they are leading to (i.e. higher education, a specific vocation), they are also proposed to be open for change in relation to how they are valued by for example the youths choosing them (measured in grade point averages for the programmes), and by the employers in relation to how the programmes meet with labour market needs (c.f. co-study 2 in relation to the Media programme). Hence, the assumptions of consistency and aggregations of data that in previous recruitment research have been used as supporting valid conclusions, are in the co-studies tested in different ways.

In co-study 1-4, different levels of aggregations were used. For co-study 1, parents’ educational level in relation to an aggregated categorisation of upper secondary education into either academic preparatory or vocational education was analysed. The operationalisation of “valued education” as a variable following the idea of an academic/vocational divide, was shaped by the “two-generation model” and the well-established relation among home environment, children’s higher education participation, and increased living standards (Chapter 2, above). At large, the observable

associations between parents' educational level and choice of either academic preparatory or vocational programmes in co-study 1 can be viewed as further validating the academic/vocational divide as a proxy for measuring equal educational opportunities. That is, the main patterns emerging from the analysis showed a consistently strong overrepresentation of children from homes with two years or more of higher education. However, there were also observed patterns of increasing GPA and changes in ParEd distribution ratios in the vocational area, which indicated a shift in status of (some) vocational programmes after the 1994 "access reform" (co-study 1). By these results, the construct validity of inferences drawn in relation to the highly aggregated academic/vocational variable, was challenged.

The indication of a shift in ideas of what constitutes "valued education", and the challenges this entailed for the well-established use of enrolment in academic preparatory programmes to measure equal educational opportunities, induced a diffractive approach to large-scale data in the subsequent co-studies. Here, the consistency and richness of registry data provided a solid base for inquiries of how aggregations risk hiding pervasive biases, persistent patterns, as well as important changes within an area of education. However, while the aggregated level and the large population used in co-study 1 reduced the impact of random processes on the results through averaging effects, the sectionalising of data in co-study 2-4 opened up for a risk of over-interpreting data. This threat to statistical validity is further discussed below.

In co-study 3 and 4 the use of broad programme variables (i.e. the "Natural Sciences" or the "Social Sciences") was approached as producing results that, although valid for the given demarcation, hide other differentiating processes that occur in upper secondary choices. Co-study 3 and 4 therefore took advantage of the richness of registry data in terms of the detailed information available in the subject codes (studievägs-koder), which are the smallest units in the registration of student enrolment after 1994. However, when analysing clusters of subject codes, the sub-populations were small. For example, a subject code cluster in co-study 3 comprised between 2 and 13 350 students for specific time points.

The division of registry data into smaller sub-populations entailed some problems for the validity of the results. That is, for the singular cohort it was hard to discern whether differences in enrolment for (in the case of co-study 3 and 4) girls and boys are due to random events or part of a gendered stratification process. This problem was highly present in co-study 3, which is particularly interested in the specialisation options and how gender relates to educational choice. Therefore, co-study 3 includes four cohorts distributed over 15 years, two before the “multiple options” reform of 2000 and two after. The demonstrated consistency in recruitment between the two oldest and the two youngest cohorts respectively, is claimed to enhance the reliability also of small sub-populations. Furthermore, co-study 3 also included a theoretical framework of relations between gender and specific subject domains. In co-study 4, this focus on theory is enhanced, aiming to explore the flows of students within the “Social Sciences” domain and in particular to changes and consistencies of the larger areas. That is, the aim in co-study 4 was predominantly not to understand how gender affects educational choice, but to explore and describe the formation(s) of the domain from a gender perspective. Hence, the validity of inferences drawn from the statistical analysis is in co-study 4 supported by a theoretical framework that goes more in depth with ideas of subject domains, agency, and choice.

Thus, the sub-populations in co-study 3 and 4 for some instances were quite small. Still, data represented all Swedish youths enrolled in the specific option for a specific point in time. In co-study 2, however, the analysis was limited to one specific Swedish municipality with approximately 1000 pupils per cohort leaving compulsory education. Furthermore, the analysis focused two programmes where the total number spanned between 12 and 63 students. Additionally, the programme populations were analysed by a parents’ education variable divided into three groups, the dichotomous variable of gender, and in one example into an intersectional variable of gender and parents’ education. Hence, the data used in co-study 2 was highly susceptible for the impact of random processes. To reduce the risk of drawing invalid inferences, this problem was approached from different angles. Firstly, the analysis encompassed all cohorts that

entered upper secondary education within the time span of the study (in total 21 cohorts (1995-2015)). By these repeated measurements it was possible to discern random variations from more stable trends. Secondly, as for all four co-studies of this thesis, the results of the descriptive analysis were carefully interpreted, weighed against previous research and theoretical assumptions, and do in no part claim any causal relationships. That is, as stated already in the thesis' title, the comprised studies are all part of an explorative venture which hopefully can provide a more detailed map over the differentiating processes of Swedish upper secondary education.

As discernible in the above, the longitudinal perspective also entails an issue that has become an important focal point for this thesis as a whole. That is, it seems like the sought after consistency of measurements over time (e.g. in SOU 1980:30) tend to establish the constructs behind as stable entities. The "recruitment matrix", outlined in co-study 4, is perhaps the most prominent example of this. In relation to Aneshensel (2002), the consistent and bureaucratic measurement practices of registry data, together with the large amount of information and individual cases, can be argued to contribute to this solidification of the abstract. That is, when registry data are used for research, researchers seldom have sufficient knowledge or control of the assumptions, ideas, or imaginations that are operationalised into measurable entities. Hence, researching registry data comes with a responsibility (or in Barad's terms a demand of being response/able) to critically address the lenses through which some shapes of variables have been established as valid over other (e.g. "academic preparatory/vocational"; "science/social"). Additionally, there is a risk that the statistical power entailing registry data of this type dim the fact that the measured variables only are proxies for the intangible (c.f. Aneshensel 2002). Leaving lenses undeclared and relying on the power of numbers can, proposedly, lead to the observed associations among variables being taken for reflections of a pre-existing reality, rather than patterns which have the potential to be shaped otherwise (c.f. Aneshensel, 2002; Barad, 2014). Such a fallacy would compromise the validity of any inferences drawn from a large-scale analysis. The risk of solidifying the abstract, I propose by co-study 2-4, can be met by

disaggregating variables that are commonly used and by descriptive analyses which suggest alternative understandings of the constructs that have shaped them.

Shifting lenses

This chapter has presented the entangled ontological, ethical, and epistemological standpoints taken in the thesis. Also, the concepts that have guided the analyses of policies and large-scale data have been highlighted, and some of their implications for the co-studies as well as for the accumulated results of the thesis have been exemplified. To sum up, the thread that runs through the chapter is about shifting lenses. In the forthcoming chapter, this thread is interweaved in the presentation of Swedish upper secondary reforms from 1971 to 2011. That is, the diffractive approach implies that such a presentation just is one of many possible. Here, the history of Swedish upper secondary reforms is viewed through a lens shaped by the above outlined entanglements of policy making and recruitment research. The presentation in the subsequent chapter is therefore also an analysis of how “student recruitment” as a construct, or an object of thought, has been problematized in Swedish upper secondary policies. In the analysis, the questions of Bacchi’s “What is the problem represented to be” approach (see p.62, above), together with the assemblage framework (p.58), are applied as lens-shifters.

Chapter 4 Student recruitment in Swedish upper secondary reforms

One central question for this thesis is how student recruitment is problematized in policy, and to what consequences for Swedish upper secondary reforms over time (p.26, above). This question is in the subsequent chapter analysed through the six questions in Bacchi's WPR-approach (p.62, above). As stated above, the underlying assumption of the following inquiry is that articulations of "student recruitment", and the related ideas of "goals", "demands", and "biases", also take part in producing the problem.

Analysing student recruitment as an object of thought

For this chapter, the construction of "student recruitment" is focused as an object of thought in relation to the Swedish upper secondary reforms from 1971 to 2011. First, the history of Swedish upper secondary programme organisation is presented, guided by the question of what assumptions that form ideas of "recruitment", and how it is reshaped over time. The question of what the foundational ideas are, I argue, is also deeply entangled with the question of where and how these ideas have emerged and been legitimised. Throughout the analysis, some consequences of the articulations of the recruitment issue are outlined in terms of what programme organisations that emanate from the reforms as well as the specific categories (or shapes of elements) that are produced. Through delineating the categories produced in the policy texts, it also becomes possible to discuss how they delimit other ways of thinking about Swedish upper secondary education. In the second section of this chapter, the question of silences and potential ways of thinking otherwise are diffracted through a lens shaped by the framework of assemblages.

Vertical recruitment

The formation of an integrated upper secondary school in 1971 was preceded by the implementation of the 9-year comprehensive school for all children in 1962. The implementation of a comprehensive school, pushed the point of formal differentiation forward which induced a demand for a more uniform organisation of non-compulsory, youth education (SOU 1963:42). Before 1971, post-sixteen education comprised various vocational educations, with different administrative structures, as well as the academic preparatory “Gymnasium”. Stemming from the results of the analyses of how highly differentiated systems disadvantaged children from working class homes (Boalt 1947), the “ability reserve” investigations (see Husén & Härnqvist, 2000), and the positive correlation between educational level and quality of life, this structure was deemed not only as problematic in administrative terms, but also in terms of equal educational opportunities (c.f. Härnqvist, 1966). Equal educational opportunities were at this point conceptualised as everyone’s opportunity for vertical mobility in the education system, only restricted by “objective” merits (SOU 1963:42; 1968). The logic of the integrated upper secondary school, thus, is founded on the distinction between absence/presence in a track through which education can be further accumulated. In SOU 1963:42 (see also Mellén 2017), this track towards higher education is proposed to include all post-sixteen education while youths “cannot be asked to decide their future trajectories already at the age of 16” (SOU 1963:42, p.238).

Through the 1971 upper secondary reform, three different school types were brought together under one umbrella. These were 1) the academic preparatory school (Gymnasium) with a Natural Sciences (with biology and mathematics), a Latin (humanities), or a General (including social studies and modern languages) profile. Also included in the new upper secondary school were 2) the continuation schools corresponding to the economic and mercantile sectors of the labour market, schools educating for social work, and schools of technology, and 3) the various pre-existing vocational schools. The new upper secondary school thus encompassed both vocational, mostly two-year

programmes, and academic preparatory, three- or four-year programmes (SOU 1963:42; SOU 1968:63). However, for economic reasons and despite the claim in SOU 1963:42 of basic eligibility for higher education through all programmes, higher education access was only granted for those students successfully finishing a three- or four-year programme.

Thus, in the early formation of an integrated upper secondary school the differentiation issue, in relation to the effects of family background for educational trajectories, and the findings of an “ability reserve” are foundational. These foundations are all derived from statistical analyses, performed in close relations with educational policy making (c.f. Husén, 1989). By this, the specific goal for upper secondary recruitment is articulated as promoting vertical mobility, and by that enforcing “equal opportunities”, by removing structural barriers for student enrolment in academic preparatory programmes. From this recruitment goal, a specific category of potential recruits emerges: children from lower social strata, with sufficient cognitive abilities.

Horizontal recruitment

The implementation of the “new upper secondary school” resulted in an increase of students within the post-sixteen educational system. In the mid-1970s almost 75 percent of birth cohorts were transferring from comprehensive school to an upper secondary programme. However, as outlined in Lundahl (2002), already in the following years after implementing the “new upper secondary school”, there were indications of the proposedly integrated system still being fragmented and biased. Specifically, the programme structures within the new upper secondary school were deemed to be compartmentalized, leaving no room for transitions once students had entered a specific path. By this, a higher degree of flexibility in the system was brought up on the political agenda (SOU 1981:96). Therefore, an investigating commission was appointed in 1976 to evaluate the upper secondary reform of 1971 (SOU 1981:96). The commission was appointed right before a political shift from a left-wing to a right-wing government in 1976, followed by a shift back in 1982, which led to the commission’s

work being redirected and delayed. Thus, the 1976 commission's work spanned over more than a decade, and resulted in several reports, concluding for example that upper secondary education was unified only in terms of administration (SOU 1981:96), that the programmes previously covered by the Gymnasium and the continuation schools remained intact while the vocational education had been subjected to vast changes (SOU 1981:97).

In the work produced by the commission of 1976, a "map" of upper secondary education emerged, taking the form of a two-by-two matrix with vertical academic/vocational, and horizontal NT/HSE distinction (see app. 2). This four-field model is in SOU 1980:30 argued for reasons of comparability over two different systems. It is concluded that while the academic preparatory programmes in the new upper secondary school were comparable to the programmes within the old "Gymnasium" school form, the content and structure of the vocational programmes had changed too much to offer a valid ground for longitudinal analyses. The emphasis on academic preparatory education was also paired with a particular focus on science and technology. One reason for this would possibly be that an increased need for engineers had been in focus for recruitment policies since the 1950s (e.g. SOU 1963:42). This is particularly noticeable in SOU 1980:30, where academic preparatory (natural) sciences and technology (NT) education is positioned in relation to "other" (including the humanities, civic education, and the economics) academic preparatory education (SOU 1980:30, p.70).

The analyses in SOU 1980:30 of social selection in relation to the four areas, support the earlier findings that children from lower social strata were underrepresented in the academic preparatory programmes in general. In the report also, particular attention was paid to the academic preparatory Natural Sciences and Technology (NT) programmes and the statistical analysis discerned an underrepresentation of "high achieving girls" within the area. In SOU 1980:30, hence, the problem of "absentees" evolve from including socio-economic factors to also include gender. Furthermore, the previous value assigned to academic preparatory education in general, is now concentrated to the NT area.

Hence, the problem of a vertical recruitment bias shaping the reform in 1971, now evolves to also include issues of horizontal differentiation. As highlighted by the reports from the 1976 commission the structures of the old “gymnasium” remained intact. Furthermore, as expressed in SOU 1980:30, the similarities with the previous system meant that biased ideas and understandings of what different programmes represent, as well as “who they were for”, were still highly present in educational choices. One example of how “history matters” (c.f. Berglund and Loeb, 2013), is proposedly the continuous overrepresentation of boys within the natural sciences and technology programmes. When articulating a particular need of engineers, and recruitment to the male dominated NT area as in demand (see also Lövheim 2014), the “absent girls” thus inevitably is produced as a recruitment problem. The formation of a two-by-two matrix, organised around a hierarchical order of academic/vocational, and NT/other, in policy informing recruitment research, can be argued to further enhance the positioning of some groups (e.g. “working class children”, “girls”, etc.) as subaltern.

Re-directing recruitment

In the 1970s and 1980s, Swedish upper secondary policy and recruitment research take form in a reciprocal relationship. The problems which are represented in the reports of 1980 and 1981 (SOU 1980:30; 1981:96-97) are related to geographical access, decentralised principles of governance, and pedagogical content, but foremost to how the organisation of knowledge into delimited areas of academic and vocational education respectively hinder equal educational opportunities. In the policy texts, accordingly, flexibility is a reoccurring term which foremost is given content through ideas of possibilities to change tracks within the chosen area of education and local mandate to adjust content in relation to the direct needs of the labour market as well as individuals. As Lundahl (2002) has outlined, the political parties on both wings agreed on the need of organisational change in upper secondary education. However, this consensus had different motives. The left wing parties, on the one hand, argued that the rigid structure of the new upper secondary

school negatively affected the strivings for a meritocratic education system and a democratic society at large. On the other hand, right wing parties maintained that the inflexible programme organisation limited possibilities of individual freedom of choice.

Following the 1980s report of the persistent social biases in student recruitment to academic preparatory programmes in upper secondary education, an increased focus on potential reforms of vocational education emerged. Here, proposedly, “recruitment” shifts shape from being focused on attracting the underrepresented to the “valued”, to how the spaces of the “absentees” could be improved. In 1983 a government bill (prop. 1983/84:116) was submitted, proposing a broadened generic content for vocational education, as well as an improvement of integrated workplace learning. This bill was followed by a series of investigations performed by a commission group relating specifically to the development of vocational education (reported in 1986:2, 1986:3). Also, by Prop. 1983/84:116, a commission was appointed to investigate the possibilities of extending vocational programmes by implementing a third year.

The vocational extension inquiry resulted in two commission reports (SOU 1986:2-3), and a government bill (prop. 1987/88:102) where freedom of choice through a broadened generic content was advocated. To extend the two-year vocational programmes would proposedly make this broadened content possible, and thus provide a knowledge base for transitions to higher education. The broadened generic content was also argued to promote equal educational opportunities by increasing the attractiveness of vocational education, and thereby potentially recruiting from groups traditionally overrepresented in academic preparatory education. Furthermore, the problematics of boys being predominantly enrolled in the NT-area of the two-by-two recruitment matrix, and girls in the HSE-area, were also addressed in relation to the implementation of an extra year (SOU 1986:3). Girls, it was stated, would be more likely to choose a boy dominated, vocational programme if increasing the generic content.

Also, at this point the capacity of the upper secondary system had been increased so that all youths with sufficient grades had the opportunity to transit from comprehensive school. Thus, in the

commission reports the knowledge organisation and pedagogical content in relation to equal educational opportunities and economic efficiency were emphasised. In the reports there are some specific vocational education related issues. One emerging problem is the drop-out rate, which is implied by the content related incentives of more seamless transitions from comprehensive school and a more “meaningful” education by for example a reinforced labour market connection. The organisation related change incentives are however similar to previous policies.

The vocational/academic divide here emerges as the main problem for equal educational opportunities, although from a different perspective than before. That is, while equal educational opportunities in for example SOU 1980:30 was framed as the meritocratic access to academic preparatory programmes, by the incentive to recruit new groups to vocational programmes, there is now a shift in the direction of recruitment demands – from mainly concerning the flow of students into the academic preparatory, to expressing the traditionally “academic” recruits as potentially being “vocational”.

In 1988 a third year of vocational education was implemented on trial in selected regions. The evaluation of this trial was ended in advance in 1991 (SOU 1992:25), where a decision was taken that all vocational education was to be extended with an extra year.

Marketised recruitment

The vocational policy inquiries during the 1980s thus resulted in the extension of vocational education in 1991. Also a (left wing) government bill was passed (prop. 1990/1991:85) which lay ground for the vast educational reforms in 1994. In the bill, decentralised governance is brought to the fore. Also, young people’s right to decide over their own education is a central theme. Furthermore, there is a clear intention to make all upper secondary education academic preparatory. Later in 1991, a right wing government was elected. In the following year a right wing government bill was passed (prop. 1992/1993:230) enabling independent actors to establish

schools, and where the introduction of a voucher system opened up for individual freedom of choice between schools.

Although there are clear links between the commission directive of 1976 and the government bill of 1991, it is possible to discern a shift in what the problem is represented to be. That is, while the assumptions underpinning recruitment as a flexibility problem in 1976 stemmed from the previous discussion on equal opportunities through a less stratified school system, the change incentives in the government bill of 1992 implies somewhat different motives. The proposition to introduce a voucher system in 1992, as well as the increased focus on students' rights to be involved in designing their own education in 1991, both imply that inflexibility now is presented as a problem in relation to an individual rather than an organisational level. By this, I propose, the foundational assumptions of equal opportunities as achieved through political governance and the removal of structural barriers that were forming recruitment policies in the 1960s, now seem to have shifted in accordance with concomitant streams of individualisation and education becoming a "private good" (Englund, 1996). The logics forming the idea of student recruitment thus take a radical turn from being a social project to becoming a venture for individual fulfilment, based on supply and demand (c.f. Harling, 2017).

The responsible recruit

In 1994, a new curriculum for upper secondary education was implemented together with a new grading system. Now, 16 national programmes were introduced (app. 2). These programmes were course based, in an attempt to enable transitions between programmes as well as opening up for integrated classes across programmes (see Dahllöf (2002) for a retrospective discussion). Also, the suggestion first articulated in 1963 (SOU 1963:42) that all upper secondary education should provide the basic entry requirements for higher education, was now implemented. The "access reform" of 1994 thus blurred the distinction between academic preparatory and vocational upper secondary education. In accordance, student

recruitment as an issue in relation to higher education access seems to be pushed back in the policy texts thereafter.

Since the reform of 1994 large-scale evaluation projects, intertwined with educational policy making, have not been politically instigated. However, in 1997, a follow up study was performed and discussed in a commission report (SOU 1997:107). In this report, students' freedom of choice within and between upper secondary programmes was deemed as insufficient. Contrary to previous policies proposing a less stratified system, the change incentive articulated in SOU 1997:107 was to create a more diverse option structure, to be able to meet with the shifting needs of the labour market. Especially targeted in the 1997 commission report and the subsequent government bill in 1998, was the natural sciences and technology area of education. In SOU 1997:107, the STEM area is particularly highlighted as important to develop, while there is a pressing shortage in work force supply (SOU 1997:107, p.81; c.f. the "STEM-crisis" in Blackley & Howell, 2015). Also, the "absent girls" reoccurs, now particularly in relation to Mathematics and Technology (c.f. Mellén and Angervall, 2020). As a consequence, a minor reform was implemented in 2000 where the Technology programme became a national programme separate from the Natural Sciences. Also, most of the national programmes were more diversified in 2000, offering various options within.

The implementation of multiple options seems to be founded on two different (and somewhat opposite) arguments in relation to recruitment. On the one hand, it is highlighted how the student distribution pattern over programmes does not meet with the needs of the labour market sector (in particular the STEM area). These discrepancies are in parallel proposed to be solved by specific actions for targeting potential recruits (SOU 1997:107, p. 97). On the other hand, increased possibilities for individual freedom of choice are articulated as of uttermost importance. Here, the recruitment problem moves inside the individual by stating that you are free to choose, if you choose responsibly (e.g. Dovemark 2004). This tension between student recruitment as a socio-political issue and individualised responsibility to choose "right", is reinforced during the 2000s in line with the exteriorisation of knowledge demonstrated

in for example Beach and Dovermark (2009), as well as in Lund (2006).

Labour market recruitment

After the implementation of a more differentiated option structure in 2000, the discussion within the right wing opposition revolved around the lack of applicability for some upper secondary school programmes. In the election campaign preceding the 2006 election, an election manifesto produced by the opposition alliance (Allians för Sverige, 2006) articulated a new educational organisation founded on the idea of employability through applicability. After winning the election in 2006, the right wing government appointed a one-man committee to evaluate how to strengthen the relation between upper secondary school and the labour market, in order to increase the employability of Swedish youths (dir. 2007:8). In accordance, it is concluded in the report that the access reform in 1994 had led to an unclear structure, which caused “confusion among students” what their education would lead to (SOU 2008:27, p.176). The broadened generic content in vocational education was claimed to cause a drop-out effect (c.f. the “myth of the generic content” in Nylund 2013; also Berglund, 2009). By the proposals stemming from the 2008 report, an upper secondary reform was implemented in 2011. The main changes in 2011 were the return back to only some programmes providing the basic entry requirements for higher education, and that an apprentice system was introduced. Also, there were programmes removed from the curriculum such as the Media programme, and the integrated Social Sciences programme was parted into three overarching programmes of Social Sciences, Economics, and the Humanities. In general, the programme curricula were made more detailed, and so was the scale for grading.

In SOU 2008:27, the links between recruitment and social biases are no longer discernible. Student recruitment is here predominantly expressed in general terms in relation to upper secondary education as an important recruitment basis for higher education (p.178). As an exception, recruitment to vocational education is underscored as of importance in relation to meeting with labour market needs (p.377).

The only referral to recruitment as an issue of equality, is when the report addresses increased apprenticeship education as at the same time improving the applicability of the female dominated, vocational programmes, and as a way to recruit more girls to the male dominated programmes (SOU 2008:27, p.610). Thus again, the “absent girls” emerges as a foundational aspect of recruitment.

Hence, in 2008 the foundational ideas of equal educational opportunities, part in forming the “new upper secondary school” in 1971 are now reduced to a narrow definition of “improved conditions for girls in vocational education”. Furthermore, the commission report also concludes that the gender bias in vocational education predominantly is a reflection of the gender segregated labour market (p.610).

In conclusion, “student recruitment” as an object of thought has shaped the formation of Swedish upper secondary education over more than half a decade. However, the assumptions underpinning it have also transformed considerably in a process that seems to have converted the problem of student recruitment into a rather empty concept. Yet, the material outcomes of forming an educational system in relation to articulations of “goals”, “demands”, and “biases” are still highly present, not the least in the continuous organisation of upper secondary education in accordance with the recruitment matrix: In relation to the academic/vocational divide (presumably even enforced by the reform of 2011; c.f. Nylund & Rosvall, 2011; Nylund et al., 2018), as well as in relation to the Science/Social distinction.

Diffractioning the salience of silence

Above it becomes clear that “student recruitment” is shaped by ideas of who the potential recruits are as well as what they are to be recruited to. Although these ideas seem to be contingent upon changes such as the marketization of the Swedish school system, some specific shapes of elements emanating from the recruitment issue as shaped in educational policy over time, remain. That is, the policy formations of student recruitment is a process in flux, where stability and change occur simultaneously.

As outlined, one of the most salient stabilizing principle in the history of Swedish upper secondary recruitment policy, is the academic/vocational - science/social, recruitment matrix. By the WPR model, the recruitment matrix can be viewed as a structuring principle that silences other ways of thinking about the organisation of and recruitment to upper secondary education. The enforcement of the academic/vocational divide in recruitment policy, supported by analytical models focused on the absent groups, seems to a great extent to have maintained the structures of the pre-1971 youth education. The programmes (re)emerging from these structures (such as the Natural Sciences, the Construction programme) are, as argued in Beach (1999), reproducing social differences by their history and daily practices. Hence, although there are ideas of change in relation to equal educational opportunities and meritocratic access underpinning recruitment policies in the early years of Swedish upper secondary education, the enduring academic/vocational divide hinders any such attempts.

Similarly, the separation in policy between the Natural Sciences and Technology and the Humanities, Civic, and Economics areas within both academic preparatory and vocational education seems to maintain a gendered division. As seen in the commission report preceding the latest upper secondary reform (SOU 2008:27), this division can be framed and explained by the gendered structures of the labour market. However, as for the academic/vocational divide, the continuous organisation of programmes into either being related to the technical or the caring sector will proposedly (and as empirically evident thus far) keep on differentiating between youths along division of gender already when they are 16 years of age.

Proposedly, while recruitment policy seems to uphold dichotomous thinking of mind/body, technical/caring, ideas of flexible programme structures, “core subjects”, and transitions over programmes will have little effect on social biases. In contrast, if relying on Bacchi (2017) these ideas will rather “silence” the possibilities to for example constitute an upper secondary education which is structured around something else than pre-existing knowledge organisations and labour market needs. An example of this “otherwise” thinking, is provided by Jonsson and Beach (2015),

who suggest “mixed classrooms”, i.e. students from different programmes taking courses together, as a way of reducing stereotypes and prejudice. This suggestion is similar to what Dahllöf (1978) denotes as an unrealised project of freedom of choice in Swedish upper secondary education. In retrospect, he discusses how ideas of freedom of choice as an undulating movement, where students were to move back and forth between general and specialised courses during their upper secondary education, transferred a model where students were streamlined towards different specialisations in accordance with their initial choices.

Another category emerging through recruitment policies is the “absent girls”. In line with the critique posed by Mendick et al. (2017), the focus on girls as potential recruits to the STEM area risks silencing other ways of understanding absence/presence. For example, when “girls” are formed as a statistical category through which upper secondary education recruitment is evaluated, other, intersecting categories are made invisible. Also, by focusing the “absent” the characteristics of the “present” are left un-investigated. That is, as Mendick et al. (2017) suggest, by focusing the girls who enrol, it would be possible to broaden the understanding of the including/excluding mechanisms of STEM participation. Further, (as also highlighted in Ottemo, 2015) the focus on girls’ absence leaves out the question of why boys are there.

Thus, when asking about silences in accordance with Bacchi’s model (2012), other ways of thinking about upper secondary education emerge. However, when understanding the categories produced through policies as “silencing”, this indicates the existence of other, pre-existing categories. By the concept of assemblages, this notion can be diffracted. For example, the heterogeneity of elements suggests that there is nothing beyond the specific assemblage. That is, by the onto-epistemological perspective of a levelled world the researcher cannot take a “step back” and distinguish “something else”. Rather, by analysing the conditions under which a specific assemblage is drawn together, the researchers introduce themselves as elements that can take part in producing alternative understandings. An example of this is provided in Archer et al. (2013), and in Mendick et al. (2017) where their analyses of the “pipeline

model” in STEM produces new ways of thinking of STEM as for example a “springboard” of wider use than professional STEM life.

Also, the categories that are produced through problematisations of recruitment seem rather stable over time (the “working class children”, “absent girls” “academic/vocational”). However, if considering the exteriority of elements as suggested by Savage (2020), their meaning is contingently shifting in relation to other elements. A distinct example from the above policy analysis is the problematisation of girls being underrepresented in the boy dominated, vocational programmes. In the report from 1986, the problem is proposed to be addressed by a broadened generic knowledge base which would open up for further higher education trajectories. Somewhat conversely, in 2008 a strengthened link between upper secondary vocational education and the labour market was proposed to attract more girls to the boy dominated programmes.

Thus the elements of “generic knowledge” and “gender equality” take on very different shapes in the 2008 policy than in the 1986 policy. In 1986 the meaning of “generic knowledge” is formed by ideas of meritocratic access to higher education, and in relation to the general reach for “new groups” to advance in the educational system. Also, when introducing the element of gender equality here, it is shaped as girls’ right to enter what traditionally have been male domains. Thus the element of generic knowledge takes on a slightly different form when aligned with “gender equality”, not only enabling vertical transitions but also reducing the horizontal stratification by creating a common, and proposedly gender neutral, ground.

In 2008, generic knowledge is defined in relation to upper secondary programmes as lacking in applicability. Generic knowledge now becomes a problem, a barrier for the efficiency and applicability of upper secondary education in relation to employability. Furthermore, applicability and employability are defined through their relations in other assemblages, as the individuals’ responsibility to create their own opportunities through education (c.f. Carlbaum 2012; Dovemark, 2004). Access to the boy dominated areas of vocational education is thus in 2008 stated as “free” when being clearly defined, while argued through the logic of the individual as free to choose if provided clear and correct information

Chapter 5 Summary of the studies

The thesis includes four studies that are contributing to the overarching aim to identify gaps and deepen knowledge about student recruitment. For this chapter the four co-studies are summarised, and their interrelations are highlighted.

Co-study 1: Mobility and selection on the “free” upper secondary school market in Sweden.

Mellén, J. (2017) Rörlighet och selektion på en ”öppen” gymnasiemarknad. [Mobility and Selection on the “Free” Upper Secondary School Market in Sweden.] *Utbildning och Demokrati*, 26(1), 67-86.

Departing in the tradition of upper secondary recruitment research represented by for example Härnqvist (1968) and Svensson (2011), the first empirical study comprised by this thesis aimed to investigate changes in student recruitment to academic preparatory programmes. The question asked was how parents’ educational level impacted on upper secondary programme choices in the light of an ongoing “marketization” process. Also, an analytical division was made between recruitment to public schools on the one hand, and to independent (private) schools on the other. The study departs in the well substantiated claim that youths’ home environment has impact on educational trajectories, but argues the “two generation model” (Härnqvist, 1966), with its focus on individual background factors, as insufficient when the “access reform” of 1994 challenges common ideas of what makes “good” choices. Instead, however not conversely, the theoretical perspective of Bourdieu and Passeron (1977/2008) and Bourdieu (1989) was applied, and particularly the notion of fields as social constructions.

Through this framework, group level changes in student mobility between academic preparatory and vocational upper secondary education was analysed. Leaning on Bourdieu (1989), who establishes that privileged groups adapt better to changing systems, this study concludes that the group of students from highly educated homes also seems to make less traditional choices after the 1994 access reform. That is, when all programmes provided general entry requirements for higher education, youths from privileged homes were to a higher degree choosing upper secondary education traditionally categorized as vocational. In contrast, youths from homes with less educational capital appeared as less mobile across the vocational/academic divide. The results of the study posted a series of further questions, related to how upper secondary school is shaped between intended effects of political school reforms and actual outcomes. In co-study 1, this gap is argued to be between the intended effects of a less restricted differentiation structure (the access reform of 1994) to increase mobility for less privileged groups and the results pointing at youths from highly educated homes taking advantage of the possibility to both having vocational training and keeping the door open for higher education. That is, the access reform of 1994 proposedly added new potential to (some) vocational education, shaping them as “double assets” which responded with the already privileged.

Co-study 2 Education in demand, or a flash in the pan? Representations of desire in Swedish upper secondary school

Mellén, J., manuscript.

In co-study 1, some tensions appeared which have contributed to the thesis presenting a methodological framework “in motion”. The second study of the thesis departs in the idea of a double potential initiated to vocational education by the access reform. In addition, the methodological framework in co-study 2 includes an analysis of local representations of broader shifts in the view of education. In the study, the view on upper secondary education produced in local news-

paper editorials is related to large-scale analyses of student recruitment in the same area. Here, the discursive shift towards applicability and employability is found to be linked to two specific upper secondary programmes: the Construction programme and the Media programme. These programmes are in the editorials positioned as examples of education in demand and as a passing trend respectively. Salient in the analysis of student recruitment, is that the Construction programme seems to attain higher status (higher GPA, increased share of students from homes with higher education) from 1991-2008. This trend, additionally, is the opposite of the trend for the Media programme. However, there seems to be a time gap between the 1994 access reform and the increased interest for the Construction programme in the 2000s which, on a highly descriptive level, concurs with the discursive push towards applicability. Proposedly, thus, youths are not only responding to upbringing and parents' expectations in their choices, but also to the discursive changes which also become visible through political reforms of upper secondary education. Furthermore, by the analysis it becomes discernible that concomitant to the Media programme's decreasing status, the gap between girls (higher) and boys (lower) GPA is widened.

The study takes an assemblage approach to the constitution of options in demand, and apply the concept of desire to deepen the understanding of why the interest in the Construction programme momentarily increases, and to what consequences for the groups that traditionally enrol. In relation to the Media programme, the notion of desire produces a lens through which the fluctuating interest in the programme can be understood. Also the increasing gap between boys' and girls' GPA, emerges as an example of how relations between desire and the (un)desired are shaped by prevailing power relations.

Co-study 3 Gender and choice: differentiating options in Swedish upper secondary STEM programmes

Mellén, J., & Angervall, P. (2020). Gender and choice: differentiating options in Swedish upper secondary STEM programmes. *Journal of Education Policy*, 1-19.

From co-study 1 and 2, one main question emerged as important: how do we understand recruitment biases in upper secondary intake, considering the contingency of the outcome variable? That is, how do we analyse changes in the impact of social background factors on upper secondary intake, when programmes and options are reorganized as well as reinterpreted over time in relation to various other components, such as possibilities for transiting to higher education as well as ideas of individual freedom of choice and specialisations? By this, the lens shifts from primarily concerning impact of individual background factors to the power relations and differentiating capacities of upper secondary options. The third empirical study, therefore poses questions of to what consequences multiple option structures are implemented in the valued STEM (Science, Technology, Engineering, and Mathematics) field.

The third study hence departs in the interest of student recruitment as a relational process where the outcome variable at the same time is a “fixed” variable (that is a specific option at a specific time point), but also in contingent transition in relation to for example the range of choices that can be made, common views on “who” particular options are for, as well as ideas of their labour market applicability. By this interest, co-study 3 specifically addressed gender, both as a social background factor particularly interesting from a STEM perspective (e.g. Kanny et. al., 2014) and as intertwined in the political processes of organising education into programmes and options. The study outlines how policymakers over time highlight natural sciences and technology education as key for national prosperity, how there is a continuous need for more students in the area, and how persistent classed- and gendered recruitment biases in the area therefore must be addressed through organisational reforms. In the policy analysis of

the study, there are clear examples of how the idea of “freedom of choice” and “multiple options” forms ideas of how to recruit “new groups” (i.e. “working class kids”; “girls”) to the upper secondary STEM-area. When a multiple options structure is proposed to be implemented within the Natural Sciences and the Technology upper secondary programmes, this is done with the explicit intention in policy to attract more girls to the area in general and to mathematics in particular. By using large-scale data to illustrate gender differentiation through the multiple options structure, the study concludes that the stratification of the STEM field rather contributes to distinguishing predominantly gendered subject matters and that the multiple options reproduce, and even enhance, gender orders.

Co-study 4: Exploring the other: analysing programme formations, recruitment patterns, and gender in Swedish upper secondary school.

Mellén J., & Angervall, P. (under review).

Through the investigation of relations between gender and STEM education in policy, it became obvious that the academic preparatory natural sciences and technology (NT) programmes have been especially focused over time in relation to what was called “the other academic preparatory programmes” (SOU 1980:30). The overarching aim of the co-study 4 hence became to investigate the role of large-scale data analyses in re-organising the various and heterogeneous contents included in the “other” programmes into proposedly more coherent options of the “Social Sciences programme” in 1994 and the “Social Sciences”, the “Economics”, and “Humanities” programmes in 2011, and how the re-organisations related to gendered stratification processes.

By an analysis of policies as assemblages (Deleuze & Guattari, 1987), the study emphasises the process of how the heterogeneous elements assembled as specific programmes in 1994 and 2011 were being drawn together, and made to cohere. In this process, ideas of gender and of girls as “absent potentials” in relation to the NT-

programmes were found to be important constituting elements of the policy assemblages. The most noticeable result of the policy analysis, is the idea of the Social Sciences as unproblematic in relation to gender equality after the reform of 1994, while the proportion of girls and boys within the aggregated area was rather balanced. As a consequence, the study also addresses the recruitment patterns within the “field of the other” by analysing registry data through a lens shaped by the findings of the policy analysis. By again dispersing the outcome variable, and relating it to gender, consistent gender biases between and within the disaggregated options became salient.

Chapter 6 Discussion

In the beginning of this integrating essay, the school system's potential to depart in individual differences without producing distinctions, and by this counter "inequitable differentiation" (Wernersson, 2013), was questioned. Consequently, the differentiating capacities of Swedish upper secondary school have been put under scrutiny throughout this study. The questions posed introductory-wise regarding the desired outcomes of differentiation through upper secondary choice, and the tension between the aim for meritocracy and the empirical evidence of social biases, have been constituting the specific lenses for the four co-studies. Through applying these lenses on education policy and recruitment data, the very idea of equal differentiation emerges as a productive element, at the same time active in shaping new opportunities and in maintaining social distinctions.

To this end, the four co-studies have contributed by highlighting the patterns that appear when approaching the outcome variables of choice as constituted by relations among various elements. By a diffractive approach to policy and student recruitment data, it becomes discernible how elements of for example "freedom of choice", "applicability", and employability" that emerge within the increasingly marketised school system take part in re-shaping the very meaning of what a "good choice" is.

The function of the integrating essay, hence, has been two-folded. On the one hand, the differentiating capacities of upper secondary education as emerging in the co-studies, have been embedded in a broader context. On the other hand, the relations among policy, options and choice have been further diffracted through three additional questions. These lens-shifting questions, posed in page 26 and re-capitulated below, are also guiding the final discussion of this thesis:

1. How, and for whom, are upper secondary educational options formed in policy, from the curriculum of 1971 to the curriculum of 2011?
2. How is student recruitment problematized in policy, and to what consequences for the upper secondary reforms in 1971, 1994, 2000, and 2011?
3. What are the elements shaping and legitimising ideas of options and student recruitment?

As discernible from the essay so far, the answers to the three questions are deeply entangled. For the sake of the discussion, however, they will be momentarily, but only partially, separated. Also, the discussion departs in the last question.

Elements of stability and change

The thesis provides examples of how students' upper secondary choices are deeply stratified along similar lines in all cohorts, but also of how alternative patterns have emerged in relation to organisational and societal shifts. That is, at large, young people from "academic" homes are continuously overrepresented in "academic preparatory" programmes, and upper secondary education is deeply stratified by gender. Also, according to the results presented here, the changes that do occur appear to enforce rather than to "counter" inequitable differentiation.

Hence, when changes appear in the analyses of educational policy and student recruitment in the co-studies, they are not to be understood as opposed to stability. That is, the "new" policies, options, and representations of students' educational choices that emerge through the analyses, are shaped by institutional histories and prevailing power relations. The results, thus, can be argued to illustrate the entangled relations between disruption and continuation (Barad, 2007; 2014). One element that has been particularly outlined throughout the thesis as maintaining the stability in change, is the academic/vocational divide.

Specifically, the analyses of the history of Swedish upper secondary reforms provide examples of how the academic/vocational divide

take part in shaping new programme organisations. That is, whether the intent has been to weaken the divide or to strengthen it, it has been at the centre of all three major reforms over the last 50 years.

Moreover, the continued demarcation between “academic” and “vocational” options, take part in implementing new as well as in removing programmes from the curriculum. This is illustrated in both co-study 2 and 4. In the former, it is outlined how the short existence of the Media programme, from 1994 to 2011, was due to it being criticized as neither being academic, nor vocational enough. Similarly, co-study 4 demonstrates how the integrated Social Sciences programme, also implemented in 1994, was deemed as having a too unclear “academic profile”, and how it consequently was parted into three separate programmes in 2011.

Additionally, the academic preparatory area has maintained its status as the “valued outcome” in recruitment research since the early “ability reserve” findings (Husén, 1946). That is, the academic/vocational divide as a representation of equal opportunities has remained although the meaning and the material consequences of different upper secondary programmes have shifted over time. One consequence of this “solidification” of the construct (c.f. p.78, above), can be the risk of interpreting a less biased recruitment pattern between the areas as a step towards differentiation on more equal grounds. For example when mobility over the academic/vocational divide increases in the 2000s, this is proposedly shaped by shifts in what is perceived as valuable at a specific point in time and space. The opportunity to transcend the divide is, as illustrated in co-study 1 and 2, foremost a privilege for the already privileged.

The studies also show how the horizontal separation of upper secondary education appears as an element that carries stability. Most salient in these results is the distinction of the natural sciences and technology area, continuously shaped as important over time (see similar in Paechter, 2002; Nyström, 2012; Francis et al., 2017). As illustrated in co-study 4, this distinction has also shaped an “other” area in upper secondary education, which includes different formations of the social sciences, humanities and the economics. Additionally, as outlined in both co-study 4 and Chapter 4,

recruitment research has contributed to this horizontal stratification by focusing recruitment to the natural sciences and technology area as important. Furthermore, the horizontal stratification of educational areas is in co-study 4 demonstrated to have shaped the area of the Social Sciences (including the Humanities and Economics) as not only the “other area” but also as a space for “the other”. This space for the other, additionally, has repeatedly been measured and found insufficient in relation to the Natural Sciences and Technology programmes.

Last, and perhaps the most important finding in this thesis, is how some areas and relationships stated in education in policy as well as in educational research, are assumed to be stable over time. The problematics of assuming consistency of an area is illustrated in relation to the horizontal divide, in for example co-study 3, by how an aggregated outcome variable (here STEM-programmes) can produce stable recruitment patterns over time, while a disaggregated analysis points at increasing gender differences. Similarly, in co-study 4, ideas of consistency appear to take part in shaping specific upper secondary options. By repeatedly reinstating these options without diffracting their meaning in relation to for example gender and social class, the idea of stability will produce realities where social distinctions are interweaved and where barriers for equal recruitment are re-established. By this, I argue, recruitment research must recognise how upper educational options are produced through specific lenses, and at the same time keep the lens for evaluation in “motion”. That is, by a continuous critique of both the constructs and the proxies that are used to represent them, the differentiating capacities of Swedish upper secondary education can be discerned and challenged.

Differentiating options

In the thesis there are clear examples of how educational reforms, just as educational research, carry with them entangled sets of ideas (of meritocracy, democracy, equality, and etc.), perceptions (of specific programmes, options, and of “other”), power relations (of class and gender), and of material conditions (as for example labour market

structures). There are also examples of how these various elements, take part in constituting the options that are implemented in the upper secondary system through these reforms.

One important question for this thesis as a whole has been how, and for whom, these programmes and options are formed in policy. By the policy analyses performed throughout the thesis, one emergent answer to “how” is: through the differentiation issue. As exemplified in co-study 1, the meaning of the differentiation issue articulated in Swedish policy has shifted over time. Early on in the reform history, it was articulated as the questions of when and how the Swedish upper secondary should differentiate towards higher education and different sectors of the labour market (e.g. SOU 1948:27; SOU 1963:42), and thereafter it gradually became a question of how to increase students’ freedom of choice.

As salient in Chapter 4, above, the problematisations of student recruitment in the early years of the Swedish “One School for All” project, were shaped as responses to the desired function of the education system as differentiating on equal grounds (see e.g. Svensson, 2011). By this, vertical mobility became the focal point for the evaluation of upper secondary recruitment. This focus has remained over time, even though the general view on education has shifted from being a matter of public good to becoming a private good (Englund, 1997), and that education has been increasingly commodified (e.g. Beach 1999; Harling, 2017),

Intertwined in the question of how upper secondary programmes and options are formed in policy, lies the question of for whom. As highlighted from different perspectives in the four co-studies, as well as in chapter 4 above, the dichotomous distinctions between academic and vocational, theory and practice, science and social, and so on are deeply intertwined with ideas of masculinity and femininity, of mind and body (Paechter 2002; Connell & Messerschmidt, 2005). In co-study 3, boys specialising in Mathematics and Physics are taken as examples of how subject matters are gendered (also supported by for example Francis, et. al., 2017). Also, the different recruitment bases when comparing the Economics (boy dominated) and the Law options (girl dominated) within the, at an aggregated level, gender equal Economics programme (co-study 4), can proposedly be

understood as related to the first being perceived as predominantly being focused on figures and the other on social relations (e.g. Jüttler & Schumann, 2019; Barone & Assirelli, 2020). By implementing reforms without challenging the deeply entangled distinctions that shape upper secondary programmes (and the education system at large), social distinctions will inevitably be reproduced.

Proposedly, thus, the questions of how and when the first formal point of differentiation should take place, are shaped by and have shaped the more implicit questions of where and who. That is, the comprised educational policies for this thesis all, in different ways, produce ideas of where young people need to be in order to meet with ideas of what is (to be) in demand, but also of who the potential recruits are. Also, as demonstrated throughout the thesis, the delineation of where and who also implies that the desired spaces are limited and that not everyone can be there. Hence, while almost all sixteen-year olds in Sweden transit to upper secondary school, this inevitably means that there also must be “other” areas than those positioned as valued and in demand. By this, I argue, the differentiation issue must be revisited, departing in a framework where it is possible to ask questions not only of who are present or absent in the “valued” as well as in the “other” spaces, but also of why they are there.

Choosing failure?

The thesis contributes to the knowledge of how areas, programmes, and options made available in Swedish upper secondary education over time have been constituted by political ideologies, definitions of subject matters, labour market needs, young people’s ambitions and aspirations, and not the least, by the results of recruitment evaluations. In conclusion, the focus on absent groups in “valued” areas in previous policy informing research has contributed to re-constituting the organisation of upper secondary education in line with hegemonic relations of academic/vocational, mind/body, and male/female. And, intertwined in these divisions are perceptions, shaped by the same hegemonic power relations, of who belongs in the specific areas and also of what they are capable of learning and

becoming (c.f. Berglund, 2009; Nylund, 2013; Berglund & Henning Loeb, 2013; Beach & Johnsson, 2015).

The above leads to the question of why. That is, why is it so that girls represented in this thesis, persistently appear to choose the programmes and options that are articulated as less valued, as unclear, and sometimes even as “passing fads” (see co-study 2)? Why is it so that girls, who in general are considered to be advantaged by the education system (c.f. Öhrn, 2000) make choices that are perceived as having a low exchange value (c.f. Beach & Dovemark, 2009)?

One possible explanation for this can proposedly be found in how choice can be understood as representations of particular agencies which are produced by the relations among elements in a specific assemblage. That is, young peoples’ responses to upper secondary options are, proposedly, always contingent on, circumscribed, as well as enabled by the power relations embedded in an option assemblage (Deleuze & Guattari, 1987). As discerned in this thesis, gender is an element that is entangled with the options formations of Swedish upper secondary school. That is, access to subject areas positioned as in demand, such as for example science and technology is gendered. This is not new knowledge (see e.g. Paechter, 2002; Kanny et al., 2014; Mendick et al., 2017). However, in relation to the results presented here, some potential reasons for the persistent biases can be found. By the results of this thesis, I argue that this persistency is firmly embedded in how educational options are continuously re-instated through educational policy, without critically addressing their relations to other elements in the assemblages that constitute the social world.

Last, what becomes a “desired area” is contingent on who inhabits the area (c.f. Colebrook, 2002). Thus, as long as Swedish upper secondary education maintain a programme supply that is organised around the separate school forms preceding the reform of 1971 (c.f. Chapter 4 above; Nylund, 2013) there can be no other viable options – only options for “the other”. That is, gender hierarchies, the continuous super-ordination of the rational mind, the power of numbers, and of calculability (c.f. Paechter, 2002) are all elements that need to be diffracted when evaluating and planning future upper secondary reforms.

Concluding remarks

As outlined, the bias problem in upper secondary student recruitment is a construction underpinned by two main assumptions: On the one hand, the idea of recruitment presupposes an area to which it is important to recruit, and on the other hand it postulates a “reserve” of potential recruits. One question that emerges in relation to the above is whether it is viable to keep on searching for the “absentees” or the “leakages” (c.f. Archer et. al. 2017; Mendick et. al. 2017), or if it is necessary to first explore the areas that are assembled as “valued” or “in demand” through different lenses.

However, this venture must take into consideration the entanglements of the world (Barad, 2014). That is, upper secondary options made available through political reforms are always substantial for the students who enrol. Different options make possible different trajectories, and different outcomes (in terms of for example future income, health, and life satisfaction). And, reciprocally, the material outcomes of choosing a particular option also take part in constituting options as viable, as applicable, or as valued in relation to other options. This means that a lens cannot just be shifted, a radical break cannot take place (c.f. the quoting of Barad in Juelskjaer and Schwennesen (2012), p.51, above). Knowledge production cannot be separated from being in the world, and the researcher must respond to traditions as well as to the present when taking part in shaping the alternatives.

This is why deconstructions of problem representations in policy (c.f. Bacchi, 2012), or analyses of the elements that constitute a specific policy assemblage (c.f. Savage 2018; 2020) is not enough. The use of large-scale evaluations, I argue, are vital for understanding how social distinctions are reproduced through the education system. And, if taking a critical approach, and in research and reforms move the lenses through which patterns of social distinctions emerge, it might be possible to introduce change that actually interferes with stability. In further recruitment research, one lens-shifting question would proposedly be to what consequences Swedish upper secondary education still is organized around ideas of science/social and of academic/vocational: for ideas of what equal opportunities might

CHAPTER 6

mean, as well as for life trajectories beyond upper secondary education

Summary in Swedish

Detta är en sammanfattning på svenska av avhandlingen *Stability and Change - Policy, options, and choice in Swedish upper secondary education* [Stabilitet och Förändring – Policy, valmöjligheter och val i svensk gymnasieskola]. Avhandlingen består av fyra delstudier och en integrerande essä, en så kallad ”kappa”. Sammanfattningen nedan följer kappans struktur och beskriver de centrala poängerna för varje kapitel.

Inledning

Den här avhandlingen handlar om jämlikhet och den svenska gymnasieskolans differentierande funktioner. Mer specifikt handlar den om relationen mellan sociala bakgrundsfaktorer och val av gymnasieprogram. I en vidare bemärkelse handlar den om vad differentiering på jämlika grunder egentligen innebär relativt gymnasiets programval; vilka de eftersträvansvärda målen med gymnasieskolans sortering är, hur dessa mål legitimeras som viktiga och hur de förändras över tid. Avhandlingens inledning tar utgångspunkt i dessa frågor. Frågorna öppnar upp för den relationella ansats som genomsyrar de sammanlagda artiklarna och den kappa, som håller dem samman. Den relationella ansatsen innebär att linsen förflyttas något och på så sätt erbjuder en förståelse av förhållandet mellan elevers bakgrund och gymnasieskolans valmöjligheter som icke-linjärt och sammanflätat med maktrelationer och historia, med idéer om akademisk kunskap och ämnesområdets avgränsningar mot varandra, med uppfattade och reella värden. Med detta följer en insikt om hur ansatsen att utforska och utvärdera relationen mellan sociala bakgrundsfaktorer och val av gymnasieprogram också riskerar att återskapa sociala skillnader samt till och med att förstärka den stabila reproduktion av ojämlika villkor genom val till gymnasieskolan, som tidigare forskning så tydligt pekar på (t.ex. Palme, 2008; Erikson & Rudolphi, 2011).

Probleminramning, syfte och frågeställningar

I inledningens andra sektion ramas den breda ingången in av den massiva förändring av svensk utbildning som 1990-talets marknadsorienterade reformer av välfärdssektorn har inneburit. Under denna period transformerades idén om jämlika utbildningsmöjligheter i svensk utbildningspolitik, från att uttryckas i termer av samhällelig nytta och social sammanhållning, till att formos i relation till individualism och valfrihet (Englund, 1996). De olika valfrihetsreformer som genomfördes under tidigt 1990-tal, fick som konsekvens att elever kunde välja gymnasieskolor utanför hemkommunen. Dessutom innebar 1990-talets reformer att antalet gymnasieskolor som etablerades av fristående huvudmän växte explosionsartat (Fjellman, 2019a). Med denna utveckling följde också en ökad profilering av de olika gymnasieskolorna. Följaktligen, där gymnasievalet tidigare främst hade handlat om val om utbildningsinriktning innebar det nu ett komplext val av plats, skola, program och profil.

Marknadsanpassningen av det svenska skolsystemet har också inneburit att talet om ”eleven” har ramats in i en alltmer ekonomiserad diskurs (t.ex. Beach & Dovemark, 2011; Holm, 2014). Under 2000-talet kom den omfattande valfriheten att innebära en hårdare konkurrens om eleverna, vilket innebar att nya kanaler för att rekrytera öppnades. Till exempel växer under denna period gymnasieässor fram, där elever positioneras som kunder och kunskap som en handelsvara (t.ex. Harling, 2017; Thelin, 2019). Inflätat i dessa skeenden är också ett ökat politiskt fokus på individens anställningsbarhet och utbildningens applicerbarhet relativt den strukturella omvandlingen av arbetsmarknaden från industri till kunskapsekonomi (t.ex. Beach & Dovemark, 2009). Med dessa förskjutningar återkommer frågan om vilken funktion gymnasieskolans programval får när både förutsättningarna för valet och den arbetsmarknad det syftar till är stadda i förändring.

En tråd som löper genom avhandlingens första kapitel är således förändring. Den andra tråden är stabilitet. Nämligen, tidigare forskning om ungdomars gymnasieval i det marknadsanpassade skolsystemet visar konsekvent hur socio-ekonomiska förhållanden

påverkar gymnasievalet både på skolnivå och programnivå (t.ex. Palme, 2008; Fjellman, 2019a). Den svenska gymnasieskolan har också upprepade gånger visats vara djupt könssegregerad, inte minst relativt de yrkesinriktade programmen (t.ex. Hedlin, 2014). För den här avhandlingen innebär insikten om denna samtida stabilitet och förändring, att val av utbildningsinriktning inte enbart blir en fråga om vilka grupper som befinner sig på vilka program. Det blir också en fråga om hur och för vem dessa program bildas.

Utifrån detta formuleras avhandlingens övergripande syfte, som är att identifiera luckor och fördjupa kunskapen om ”elevrekrytering”. Utgångspunkten här är att elevrekrytering både kan framträda som en statistisk representation av ungdomars utbildningsval, men också som en aktiv del i utformandet av utbildningspolicy och således också i utformandet av gymnasieskolans programorganisation över tid. För att svara på frågor om elevrekrytering förhåller sig därför avhandlingen primärt till två empiriska källor. Den ena källan innefattar svensk registerdata för alla som påbörjar gymnasieskolan mellan 1990 och 2015, ett spann under vilket gymnasieskolan genomgår omfattande omorganisationer två gånger (1992/1994 och 2011), samt en mindre reform (2000). Den andra källan utgörs av nationella policydokument, till större delen statliga offentliga utredningar (SOU) men också kommittédirekt och regeringspropositioner. Dokumenten som innefattas är publicerade mellan 1963 och 2008, vilket innebär att förutom förberedelserna inför de tre nämnda reformerna så ingår även förarbetet till 1971 års reform.

I det inledande kapitlet beskrivs sedan kort hur avhandlingens fyra delstudier bidrar till det övergripande syftet genom att lyfta olika aspekter av hur elevrekrytering framställs i policydokument, vilka konsekvenser dessa framställningar får i form av valbara program och specialiseringar, samt vilka rekryteringsmönster som framträder i den storskaliga analysen när sociala bakgrundsfaktorer sätts i relation till olika kategoriseringar av program och specialiseringar. Med denna beskrivning som bas, formuleras också den kunskap som delstudierna sammanfattningsvis bidrar med: Det sker en övergripande förändring i rekryteringsbasen till yrkesprogrammen, efter den reform som 1994 gjorde att även yrkesförberedande program gav grundläggande

behörighet till högre utbildning. Resultaten visar att ungdomar från utbildningsstarka hem (högsta utbildningsnivå bland föräldrar ≥ 2 års högre utbildning), i större utsträckning rör sig mot traditionella yrkesprogram. Denna förändring sker dock först under 2000-talet, då talet om anställningsbarhet och applicerbarhet blir ett tydligt fokus i utbildningspolitiska texter likväl som i den vidare samhälleliga diskursen. Fokus på anställningsbarhet och utbildningens tillämpning på arbetsmarknaden kan också kopplas till hur könsskillnaderna i val av program och specialiseringar ökar under 2000-talet. Pojkar, under denna period, verkar välja utbildningsalternativ som svarar mot ett tydligt, specialiserat, behov på arbetsmarknaden, medan flickor håller sig i de bredare fårorna. Mer specifikt tycks också flickorna välja program och utbildningsalternativ som i policy uttrycks som alltför vaga och därför också mindre eftersträvansvärda.

Utifrån den sammanfattande genomgången av delstudiernas syften och resultat, specificeras sedan den tvådelade ansatsen i avhandlingens kapp. Denna ansats inkluderar dels att fördjupa förståelsen för den stabilitet och förändring som framkommer i de fyra delstudierna, dels att försöka besvara några av de frågor som studiernas resultat genererar. Dessa frågor, som således både avser att fördjupa och bredda avhandlingens bidrag, kan sammanfattas som följer: Hur och för vem formas gymnasieskolans valmöjligheter från 1971 års gymnasieskola till 2011 års gymnasieskola? Hur problematiseras ”elevrekrytering” i policy och till vilka konsekvenser för de reformer som avhandlingen omfattar? Vilka element (beståndsdelar) formar och legitimerar idéer om valmöjligheter i relation till elevrekrytering?

Tidigare forskning

I essäns andra kapitel presenteras en översikt av tidigare forskning som på olika sätt berör styrning av och elevrekrytering till gymnasieskolan. Kapitlet börjar med att redogöra för delar av den långa tradition av storskalig rekryteringsforskning som finns i Sverige. Här görs en åtskillnad mellan forskning som har utförts med Härnqvists (1956; 1968) två-generationsmodell som teoretisk utgångspunkt (t. ex. Svensson, 2001; 2011; Erikson & Rudolphi,

2011) och forskning som är utformad relativt Bourdieus teorier om olika former av kapital och utbildningsystem som fält (t. ex. Palme, 2008; Forsberg, 2015). Oavsett teoretisk ingång visar storskalig rekryteringsforskning på det som ovan har nämnts, det vill säga en stabil reproduktion av sociala skillnader i val av både gymnasieskola och program. Forskningen har också gemensamt att när utbildningssystemets förmåga att differentiera på jämlika grunder analyseras, görs detta med utgångspunkt i att akademiskt förberedande program och då främst naturvetenskap och teknik är de eftersträvaransvärda målen.

I kapitlet redogörs också för forskning om hur marknadsorienterade förändringar har förändrat relationen mellan den offentliga och privata sektorn i olika nationella kontexter. Här lyfts hur det finns en bred, internationell, forskningsfåra som knyter an till Balls dynamiska perspektiv på policy (t.ex. Ball, 1993; 2007). Med exempel från den svenska kontexten relativt den brittiska, illustreras hur privatiseringen blev en nyckelfaktor i utbildningsreformer och hur ett starkt centraliserat skolsystem som det svenska på kort tid blev ett av de mest avreglerade i världen (Lundahl m.fl., 2010). Som Lundahl m.fl. (2013) påpekar, så innebar denna decentralisering och avreglering att marknadsekonomiska krafter fick fäste både i den externa och den interna styrningen av skolan. I relation till den avreglerade marknaden och de löften om ökad valfrihet som innefattas i denna, ges här också exempel på forskning som visar på hur sociala klyftor ökar och hur valfriheten för många elever snarast minskar (t.ex. Fjellman, 2019a).

Kapitel 2 tar också upp forskning som visar hur marknadslogiker också styr skolans praktiker och elevers förhållningssätt relativt sina val till gymnasieskolan. Här visas att individualism och ekonomisering av subjektet blir en del av skolans läroplan (t.ex. Carlbaum 2012) och hur en individualiserad ansvarsdiskurs och ekonomistiska idéer om framgång och misslyckande också styr elevers förståelse av sig själva, sitt sammanhang och sina möjligheter (t.ex. Lund, 2006; Beach & Dovemark, 2009). En viktig poäng för avhandlingen, som visas i ett flertal studier, är att elever tar till sig idéer om att alla kan uppnå det de vill och bli den de vill vara om de bara bestämmer sig för det (t.ex. Asp-Onsjö & Holm, 2014). I Holm (2014) visas också på hur eleverna

själva uttrycker att det inte är någon skillnad i pojkars och flickors möjligheter och att det enda som betyder något är att göra de ”rätta valen” och på så sätt ta kontroll över sin framtid. Som motvikt presenteras i kapitel 2 även resultat från studier som visar på hur könsmaktsordningen upprätthålls, även om flickor har kommit att positioneras som ”framgångsrika” (Ringrose, 2007) och ”in power” (Öhrn, 2000).

Efter genomgången av olika perspektiv på styrning och utbildningsval, övergår forskningsöversikten i att ge exempel på hur gymnasieskolans olika utbildningsområden och program kan förstås relativt tidigare forskning. En stor del av denna genomgång fokuserar det så kallade STEM- (Science, Technology, Engineering, and Mathematics) området. Detta har sin förklaring i att området, som också tidigare påpekats, intar en särposition i tidigare rekryteringsforskning likväl som i de utbildningspolitiska texter som har utgjort en källa för denna avhandling. Här ges en kort resumé av hur själva STEM-begreppet uppstod i USA som en följd av ett politiskt direktiv att stärka ekonomin. Begreppet är använt i stora delar av världen och uttrycks ofta i relation till brist på arbetskraft och (Blackely & Howell, 2015). I linje med detta, påpekar både Lövheim (2014) och Hedlin (2009) att brist på till exempel ingenjörer och rekrytering till STEM-området varit centralt i svensk utbildningsplanering och reformverksamhet sedan 1950-talet.

Det finns också omfattande forskning om STEM-området i relation till genus och kön. Underrepresentationen av kvinnor inom området har belysts från olika perspektiv. En central poäng för avhandlingen görs av Kanny m.fl. (2014) som med stöd av sin meta-studie av STEM-relaterade vetenskapliga texter föreslår att området fortsättningsvis bör undersökas på en lägre aggregationsnivå (i relation till specifika ämnen och områden). I denna del av forskningsöversikten illustreras också hur STEM-området är format av maskulina ideal och hur detta innebär att flickors möjligheter att söka sig framförallt till fysik, teknik och matematik därav är begränsade. Archer m.fl. (2017) ger exempel på detta i en studie som följer engelska flickor som fortsätter med fysikstudier. Dessa flickor utvecklar en ”fysik-identitet” som innebär att de behöver framträda (eng. make themselves intelligible) som exceptionella. Uppfattningen

om flickor som ”elit”, som sällsynta undantag i fysikämnet, fungerar enligt författarna potentiellt också som en begränsning av rekryteringsbasen till området. Det vill säga, själva idén om ”elit” gör det bara möjligt för ett fåtal att identifiera sig som ”fysik-tjejer”. I relation till detta visar Gonsalves (2014) att när flickor och deras föräldrar pratar om relationen mellan femininet och fysik så nedvärderar de ”flickighet” och andra feminina attribut. Forskningen visar således på hur ämnesområden inte är omgärdade av strukturella barriärer som genom reformer kan rivas ner. Istället pekar den på hur hierarkiska idéer om maskulinitet och femininet, om elit och de andra, är inbyggda i ämnesområdet och upprätthålls av dem som får tillträde till det (se också Mendick, 2005; Mendick m.fl., 2017; Moote m.fl., 2020).

I översikten av tidigare forskning relativt de ämnesområden som avhandlingen fokuserar ges också exempel från det samhällsvetenskapliga området. I översikten blir det uppenbart hur rekrytering till det som i den svenska gymnasieskolan har inkluderats i det samhällsvetenskapliga området, det vill säga samhällsvetenskap, ekonomi och humaniora är ett relativt litet forskningsfält. Från den svenska kontexten ges exempel på hur det samhällsvetenskapliga området rekryter från det socio-ekonomiska mellanskiktet och att det finns en viss överrepresentation av flickor inom området (Svensson, 2001). Sandell (2007) pekar också på hur samhällsvetenskapligas utbildningar förstås som ”neutrala” av niondeklassare som ska välja gymnasieutbildning. I en europeisk kontext visar forskning inom högre utbildning att trots att könsfördelningen inom ekonomiutbildningar är relativt jämn, så föreligger skillnader i hur män och kvinnor förhåller sig till och rör sig inom området. Till exempel visar Jüttler och Schumann (2019) att flickors beslut i högre grad medieras genom uppfattningen om förvärvade kunskaper och färdigheter och intresse för ämnet än vad pojkars är. I relation till humaniora och samhällsvetenskap visar Barone och Assirelli (2020) att en mer specialiserad gymnasieorganisation ger en mer ojämn könsfördelning.

I den sista sektionen av kapitel 2 ges exempel på resultat från yrkesutbildningsforskning. Avsnittets omfattning speglar att yrkesutbildningarna inte är i fokus för avhandlingen och inte den

mängd studier som finns inom området. Här presenteras kort svenska studier om yrkesutbildningens framväxt och förändringar över tid. En viktig poäng i denna forskning är att idén om att ungdomar på yrkesprogram inte är intresserade av ”teoretisk kunskap”. Exempel ges också på hur den idé styr hur kunskapsdistributionen över gymnasieskolans yrkesprogram relativt de akademiskt förberedande programmen skiljer sig även i det som ska anses vara gemensamma ämnen. Med detta reproduceras sociala skillnader och mobiliteten för ungdomar som genomgår yrkesutbildning blir begränsad (t.ex. Berglund, 2009; Nylund, 2013).

Metodologi

I det tredje kapitlet i den integrerande essän fördjupas och breddas avhandlingens metodologiska inramning. Här beskrivs den onto-epistemologiska utgångspunkten för avhandlingen i stort med hjälp av Barads koncept inflätningar (eng. entanglements) och diffraktion. Genom begreppet inflätningar förstås världen som en utplanad helhet, där det inte föreligger några givna distinktioner mellan det naturliga och det sociala; mellan materialitet och idé. Skillnader, i betydelsen att specifika former blir synliga relativt varandra, blir med detta perspektiv till i en ständig process där historien flätas in i nuet. Diffraktion beskriver Barad (2007; 2014) i relation till det fysiska fenomen som uppstår när ljuspartiklar strömmar genom en specifik lins och på så sätt antar ett visst mönster. När linsen förflyttas, skapas nya mönster av samma materialitet. Diffraktion skapar således möjlighet att förstå de skillnadsmönster som framträder som potentiellt föränderliga.

Begreppen inflätningar och materialitet får konsekvenser för hur det empiriska materialet förstås i avhandlingen, men också för förståelsen av forskarens position, ansvar och möjligheter. Dessa konsekvenser kan sammanfattas med att ett analytiskt objekt alltid skapas genom den lins som appliceras. Forskaren gör således utifrån teori och tidigare kunskap ett så kallat ”agentiskt snitt” (eng. agential cut) som enbart är att förstå som en momentan stabilisering. Inflätningar innebär också att de mönster som framträder aldrig kan vara radikalt nya, de är alltid formade av det som tidigare varit.

Till denna grundläggande ansats läggs också teoretiska ställningstagande som mer specifikt avser maktrelationer. Här presenteras hur den lins som producerar mönster alltid är kringskuren av hegemoniska antaganden om över/underordning där maskulinitet/femininet är en starkt strukturerande princip (Paechter, 2002; Connell & Messerschmidt, 2005).

Med Barads koncept som inramning, beskrivs sedan hur tidigare rekryteringsforskning är inflätad i svensk utbildningspolitik. Här presenteras hur stora, longitudinella, datainsamlingar av sociala bakgrundsfaktorer och utbildningsval har pågått sedan mitten av förra seklet (se t.ex. Husén och Härnqvist (2000) för en tillbakablick). Dessa data har använts för att utvärdera skolreformer och som underlag för utbildningsplanering. I presentationen görs en poäng av att fokus för svensk rekryteringsforskning har legat på jämlika möjligheter att fortsätta inom högre utbildning. Detta sedan Husén (1946) påvisade att ungdomar (pojkar) från arbetarklasshem hade lägre sannolikhet att fortsätta sin utbildning än de från mer privilegierade hem trots lika resultat på arméns begåvningsstest (se ”Begåvningsreserven då och nu”, Husén (2002)). I avsnittet argumenteras också för hur ett ensidigt fokus på vissa områden (t. ex. det ”akademiska” eller det ”naturvetenskapliga”) kan få som konsekvens att andra vägar inte blir utforskade. På så sätt blir de grupper som befinner sig i dessa ”andra” områden också osynliggjorda (se Elgqvist-Salzman, 1992).

Efter genomgången av den tradition som också denna avhandling är en del av, presenteras avhandlingens förståelse och användning av Deleuze och Guattaris assemblage-ansats (1987). Assemblage-ansatsen, liksom Barads inflätningar och diffraktion, har formats utifrån en icke-dualistisk förståelse av världen. Assemblage kan också, i likhet med inflätningar, förstås som en samling av idéer, antaganden och materiella förutsättningar (så kallade ”element”) som formar den sociala verkligheten. Denna ansats har tidigare utvecklats i relation till utbildningspolicy (Savage 2018; 2020), vilket denna avhandling drar nytta av. I policy dras olika element samman och legitimerar vissa sätt organisera utbildning som legitima. Dessa policy-assemblage får också konsekvenser för vilka program som implementeras. Ett ”program-assemblage” är således ett kontextspecifikt kluster, skapat

genom relationer mellan de politiska intentionerna med ett program, programmets historia, vilka ämnen som ingår och vilken form de antar, vilka framtidsutsikter programmet är kopplade till, idéer om vem den ”typiska” studenten är, och så vidare. Alla dessa element är öppna att förändras, vilket innebär att assemblagen inte är statiska. Dock kan de vara mer eller mindre stabila vilket också visas i avhandlingens delstudier. Denna ”öppenhet” (eng. exteriority) är ett centralt begrepp inom assemblage-ansatsen. I avhandlingen bidrar också begreppen ”agens” och ”begär” till den analytiska förståelsen av relationerna mellan policy, valmöjligheter och val. Agens används som ett sätt att beskriva hur makt och möjligheter uppstår i relationer mellan de element som konstituerar ett specifikt valmöjlighets-assemblage. Begär är både att förstå som den kraft som drar ihop ett assemblage och som något som skapas genom ett assemblage. Relationen mellan begär och det begärda är alltid begränsade av maktrelationer (Coolebrook, 2002).

Assemblage-ansatsen bidrar således med analytiska begrepp genom vilka policyformationer, valmöjligheter, och val kan analyseras som en sammanflätad process. Ansatsen inkluderar dock inte något strukturerat angreppssätt till text. Därför presenteras i avhandlingen ett komplement bestående av Bacchis guide för policyanalyser. Denna guide, som har sin teoretiska bas i Foucaults genealogiska förståelse av diskurs och problematisering, består av sex frågor: 1) Vad anges problemet vara, 2) vilka antaganden underbygger detta problem, 3) hur har detta problem uppkommit 4) vad blir ”tystat” genom att problemet formuleras på detta sätt och 5) vilka är konsekvenserna, slutligen 6) hur och när har detta problem uppkommit och blivit legitimerat och hur hade det kunnat formuleras annorlunda? (Bacchi, 2012).

Från genomgången av den teoretiska inramningen övergår sedan kapitel 3 i att redogöra för avhandlingens empiriska källor och analysförfarande. Här beskrivs hur textanalyserna i avhandlingens delstudier är organiserade i relation till tanken om diffraktion (Barad, 2007; 2014). Med diffraktion som tankefigur har rekrytering och valmöjligheter i utbildningspolicy som rör gymnasieskolan från 1963 till 2008 kartlagts. Inför en andra läsning har sedan frågor formulerats med bas i tidigare forskning och de begrepp som ovan presenterats.

Genom dessa frågor genomfördes sedan en analys av relationerna mellan elementen som formar policy med avsikt att forma alternativa förståelser av rekrytering och val.

Efter presentationen av policyanalysförfarandet redogörs för de registerdata som har använts i avhandlingens delstudier. I avsnittet diskuteras de möjligheter och begränsningar som kommer med att använda statistisk data som inte primärt är avsedda att forska på. Här presenteras de variabler som har använts för att få syn på rekryteringsmönster och sociala skillnader. Som bakgrundvariabler har högsta utbildningsnivå bland föräldrar, kön (man/kvinna) och betyg från grundskolans nionde klass introducerats i studierna. Som utfallsvariabler har olika kategoriseringar av program och specialiseringar använts, samt skolors huvudmannaskap. Här diskuteras också de etiska ställningstaganden som har gjorts, som främst handlar om risken att spåra enskilda individer.

Sedan följer en diskussion om reliabilitet och validitet i analyserna av registerdata. De risker som beskrivs är framförallt ”oobserverad heterogenitet”, hur aggregationer av data kan dölja små förändringar som ändå är av vikt, och hur antaganden om variabelers konsistens över tid kan leda till icke-valida slutsatser.

”Elevrekrytering” i svenska gymnasiereformer

I kapitel 4 av den integrerande essän presenteras resultaten av en analys som genomförts utifrån Bacchis sex frågor om vad problemet anges vara (Bacchi, 2012). Här analyseras elevrekrytering som en tankekonstruktion, underbyggd av ett flertal föreställningar om ämnesområdets värde och legitimitet, av hegemoniska maktrelationer och av hur gymnasieskolans differentierande funktion bör vara. I analysen visas hur dessa föreställningar skiftar över tid, vilket också får konsekvenser för de reformer som genomförs. Resultatet är organiserat i de olika varianter av elevrekrytering som framkommer. I den föränderliga idén om vad det innebär att rekrytera elever till gymnasieskolans program, framgår också att ett genomgående element är den rekryteringsmatris som delar upp gymnasieskolan i fyra områden: Akademiska/Yrkesförberedande och Natur/Samhäll (app. 2). Denna matris visar även avhandlingens delstudier på som en

produktiv kraft i utformandet av svensk gymnasieskola. Dessa resultat diskuteras sedan genom assemblage-begreppen för att ytterligare fördjupa förståelsen av elevrekrytering som problem i policy.

Sammanfattning av avhandlingens delstudier

Avhandlingen omfattar fyra delstudier som bidrar till det övergripande syftet. Nedan presenteras studiernas syfte, övergripande frågor, och huvudsakliga resultat, kort. För en närmare beskrivning av ingående kohorter och utbildningspolitiska texter, se appendix 1.

Delstudie 1

Mellén, J. (2017) Rörlighet och selektion på en ”öppen” gymnasieemarknad. [Mobility and Selection on the “Free” Upper Secondary School Market in Sweden.] *Utbildning och Demokrati*, 26(1), 67-86.

Delstudie 1 tar tydligt avstamp i den rekryteringstradition baserad i två-generationsmodellen (Härnqvist, 1958), som tidigare har redogjorts för. Studiens syfte är att undersöka förändringar i antagning till gymnasieskolans studieförberedande program efter behörighetsreformen (där alla nationella program gav tillträde till högre utbildning) som implementerades 1994. Frågan som driver studien är hur relationen mellan antagning till studie- respektive yrkesförberedande program ändras i relation till föräldrars utbildningsnivå efter behörighetsreformen och i relation till den omfattande marknadiseringen av det svenska skolsystemet. Resultatet visar att ungdomar från utbildningsstarka hem rör sig mot det område som traditionellt kodats som ”yrkesprogram” efter behörighetsreformen. Dock sker detta i större utsträckning först under 2000-talet, vilket tolkas som att det ökade värde som tillskrivs yrkesutbildningarna under denna period får konsekvenser för hur området uppfattas. Med bas i detta föreslås det i studien att (vissa) yrkesprogram ses som en dubbel tillgång då de både ger möjlighet till högre utbildning och direkt tillträde till arbetsmarknaden. I studien diskuteras möjligheten till rörelse över den

akademiska/yrkesförberedande gränsen som ett privilegium för de redan privilegierade. Detta då en ökning av ungdomar från hem med lägre utbildning ses i de akademiska programmen samtidigt som betygsnivån går ner.

Delstudie 2

Mellén, J., manus.

Education in demand, or a flash in the pan? Representations of desire in Swedish upper secondary school

I delstudie 2 är syftet att undersöka relationen mellan programmens status och förändringar i rekryteringsmönster närmare. Studien tar sin utgångspunkt i idén om den dubbla tillgången som framträdde i den första studien. Analysen börjar i frågor om hur olika program framställs i policy och i den lokala diskursen (här representerad av ledare i Helsingborgs dagblad perioden 2006-2008). I den nationella politiken under denna period sker en förskjutning mot vikten av tydlighet och anställningsbarhet. I relation till detta, framträder Byggprogrammet respektive Medieprogrammet i de lokala ledartexterna som exempel på ett ”bra val” respektive en ”övergående trend”. Analysen av registerdata riktas därför mot dessa program. Här visas hur ungdomar (pojkar) från utbildningsstarka hem i större utsträckning väljer Byggprogrammet under några år i mitten av 00-talet. Samtidigt stiger betygsmedelvärdet på de antagna och de traditionella gruppernas representation minskar. Detta tas i studien som ett exempel på hur ett program-assemblage kan skapa begär att vara en del av det och hur begäret samtidigt begränsar andra grupper närvaro. Rekryteringsmönstret relativt Medieprogrammet är fluktuerande över den analyserade perioden, dock framträder att gapet mellan flickors (höga) och pojkars (låga) betyg ökar samtidigt som programmet tappar status.

Delstudie 3

Mellén, J., & Angervall, P. (2020). Gender and choice: differentiating options in Swedish upper secondary STEM programmes. *Journal of Education Policy*, 1-19.

I delstudie 3 är syftet att utforska hur idén om valfrihet och implementeringen av fler valmöjligheter inom det naturvetenskapliga och tekniska området påverkar rekryteringsmönster med avseende på kön. Här ställs också frågan om hur kategorisering av program påverkar hur vi förstår rekryteringsmönster. Här tas exempel i de specialiseringar inom naturvetenskapsprogrammet, som genomfördes 2000 med syfte att öka flickors representation inom teknik och matematik. Resultaten visar hur en aggregerad analys ger att flickors representation ökar i den breda naturvetenskapliga färan, medan en analys relativt de olika valmöjligheterna inom programmet visar på bibehållna eller till och med förstärkta skillnader mellan pojkars och flickors val. Resultaten diskuteras utifrån hur områden så som matematik, fysik och teknik reproduceras som förment neutrala områden men att de är formade av idéer om maskulina ideal och framträdande intellekt.

Delstudie 4

Mellén J., & Angervall, P. (under review).

Exploring the other: Analysing programme formations, recruitment patterns, and gender in Swedish upper secondary school.

Delstudie 4 börjar i insikten från delstudie 3 att den svenska gymnasieorganisationen till stor del formas i relation till STEM-området. Syftet med studien är att utforska hur ”andra områden” blir till genom policy. Här sätts fokus på hur den storskaliga rekryteringsforskningen har format policy över tid. I analysen framträder att studieförberedande naturvetenskaps- och teknikprogram under 1980-talet görs till en kategori som anses vara konsistent över tid och därför användbar i analysen av gymnasieskolans differentieringsprocesser. Mot denna kategori ställs ”andra” studieförberedande program, det vill säga humanistiska,

samhällsvetenskapliga och ekonomiska utbildningsinriktningar. Dessa ”andra” inriktningar är också genomgående presenterade som problematiska i policy, på grund av bristande anknytning till både högre utbildning och arbetsmarknad. I policy positioneras de som befinner sig utanför Natur-Teknikområdet, det vill säga flickor och ungdomar från lägre utbildade hem, som ”potentiella rekryter”. Idén om potentiella rekryter analyseras i studien relativt registerdata, uppdelat på kön. Resultaten pekar på hur flickor konsekvent bildar kluster i program och programspecialiseringar som ingår i samhällsområdet. Rörelsen över gränsen till Natur-Teknik är marginell över tid. Utifrån detta presenteras slutsatsen att genom att fortsätta organisera utbildning som antingen Natur-Teknik eller Samhällsrelaterade så reproduceras den könssegregerade strukturen i den svenska gymnasieskolan vilken också sammanfaller med en uppdelning i en plats för de lyckade och en plats för ”de andra”.

Diskussion

I kappans avslutande kapitel diskuteras avhandlingens resultat utifrån de tre frågor som inledningsvis ställdes. De poänger som görs här kan i huvudsak sammanfattas med att svensk gymnasiepolitik likväl som vidare forskning behöver återvända och ifrågasätta de uppdelningar i teori/praktik och natur/samhälle, som skapar och återskapar en utbildningsorganisation som bär med sig sociala skillnader. Frågan om hur och när differentiering mot vidare utbildning och arbetsmarknad ska ske måste också diskuteras utifrån att synen på utbildning och utbildningsmöjligheter har förändrats över tid. Utifrån avhandlingens resultat dras också slutsatsen att frågan om för vem utbildning och utbildningsalternativ skapas ständigt behöver sättas under debatt utifrån frågor om position och makt. I avhandlingens slutord ställs också frågan om det är fruktbart att fortsätta söka efter dem som inte befinner sig inom ett värdesatt område, utan istället utforska varför dessa områden positioneras som värdefulla. Här poängteras också att inte enbart analyser av diskurs, eller enbart storskaliga analyser räcker; i gränssnittet mellan olika ansatser blir det möjligt att se alternativa vägar

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Appendix 1

The studies, an overview.

	Study 1	Study 2	Study 3	Study 4
Title	Rörlighet och selektion på en "öppen" gymnasiemarknad [Mobility and Selection on the "Free" Upper Secondary School Market in Sweden]	Education in Demand, or a Flash in the Pan? Representations of <i>desire</i> in Swedish upper secondary education	Gender and Choice – differentiating options in Swedish upper secondary education	Exploring the Other - Analysing programme formations, recruitment patterns, and gender in Swedish upper secondary school
Text material	SOU 1948:27 SOU 1963:42 SOU 1980:30 SOU 1981:96 SOU 1986:2 SOU 1986:3 Prop. 1990/91:85 Prop. 1991/92:95 Prop. 1992/93:230 SOU 1993:85 Dir.2007:8 SOU 2008:27	Editorials Helsingborgs Dagblad 2006-2007	SOU 1980:30 SOU 1981:96 Prop. 1992/93:230 SOU 1993:85 SOU 1997:107 Prop. 1997/98:169 SOU 2008:27	SOU 1963:42 SOU 1980:30 SOU 1989:10 SOU 1997:107 SOU 2008:27
Birth Cohorts	1974 1982 1989	1979-1999	1978 1982 1988 1992	1975 1982 1988 1995
Variables	Educational option Academic/Vocational Parents' educational level <2years HE/≥2years HE School organiser Independent/Municipal GPA	Educational option Construction Media Parents' educational level I. Voc. Upper sec. II. Ac. Upper sec. and <2 years HE III. ≥2 years HE Gender Female/Male GPA	Educational option STEM-programmes Gender Female/Male	Educational option Social Sciences Gender Female/Male

Appendix 2

Programme organisation 1971-2011. Presented within the "recruitment matrix" (individual and introductory programmes excluded).

Lgy70	Lpf94 (2000)	Gy11	Lgy70	Lpf94 (2000)	Gy11
Natural Science	Natural Science Science Technical (to 1999) Math. & comp. sc. Environmental sc.	Natural Science Science Science & Society	Humanities		Humanities Language Culture
Technical (4-year)	Technical (from 2000) IT Tech. & human factors Tech. & enterprise Tech., environment & social planning Virtual design	Technical Tech. science Industrial engineering IT and media Soc. plan & environment Design & product development	Social science	Social Science Social science Humanities Economics	Social Science Social science Behavioural science Media, information & communication
			Economics		Economics Law Economics Arts Aesthetic communication Dance Musik Theatre Art & Design
SCIENCE			ACADEMIC		
Natural resource use Agriculture Forestry Landscaping	Natural resource use Animal care Horse keeping Agriculture Conservation Forestry Landscaping	Natural resource use Animal care Agriculture Forestry Landscaping	SOCIAL		
Technical (2-year)	Electrical engineering Automation Electronics Installation		Media Media production Graphic Media Information & advertising		
Operation & maintenance	Energy Energy Heating, ventilation & sanitation engineering Marine engineering	Electrical engineering & energy Property management Refrigeration and heat-pump technology Heating, ventilation & sanitation engineering	Arts	Arts Dance Theatre Music Art & design	
Building & construction	Construction Building & construction Painting Constructional metalwork	Building & construction Construction-site vehicles Building Plant & construction Painting Constructional metalwork	Music		
			Social work (2-year)		
Vehicle engineering	Vehicle engineering Transport Coachwork Aircraft engineering Passenger cars Trucks & mobile machinery	Vehicle & transport Transport Coachwork Trucks & mobile machinery Passenger cars Freight handling	Health & social care Social care Nursing	Health care	Health & social care
Industrial - technical Process industries Workshop - technical	Industrial Industry Process industries Woodwork	Industrial technology Industrial production Process engineering Maintenance - reliability Welding technology	Child recreation Pedagogical & social work Leisure & recreation	Child recreation Pedagogical work Social work Leisure & recreation	
Food	Food Bakery & confectionary Fresh & cured meats		Economics (2-year)		
Woodwork engineering			Household	Hotel, and restaurant (and catering) Programme Hotel Restaurant Mass catering	Restaurant & food Bakery & confectionary Fresh & cured meats Service
	Handicraft programme various specialisations	Handicraft programme Cabinet making Floristry Handressing Textile design (other)	Distribution & administration	Business & administration Commerce & service Tourism & travels	Hotel & tourism Hotel & conferences Tourism & travels Business & administration Business & service Administration & service
Textile & clothing - technical			Business & commerce		
VOCATIONAL			SOCIAL		

The key role Swedish upper secondary education plays in differentiating between higher education and labour market sectors has been discussed from an equality perspective over the last 60 years. Despite the political incentives to reduce social biases in programme enrolment, previous research persistently show that home environment and gender still influence students' choices.

This thesis presents results from four separate studies of how upper secondary programmes are shaped in national policy documents, and how students with different social backgrounds respond to the implemented options. By drawing on both national policy texts and Swedish registry data, the thesis presents an alternative perspective on the complex interrelations among recruitment patterns, educational policy, options, and choice.

With a non-dualistic approach to knowledge production as a point of departure, this thesis explores how large-scale recruitment research has actively taken part in shaping Swedish upper secondary education. Putting a particular focus on hierarchical dichotomies such as academic/vocational, mind/body, science/social, and masculinity/femininity, this thesis argues that these normative divisions maintain a system where access to programmes that are constituted as particularly valued is inevitably reproduced as a privilege for the already privileged.



Johanna Mellén has a M.Sc. in Education, and has previously worked as a teacher in compulsory school. Her research interests lie within the area of sociology of education, with a particular focus on power relations and the organisation of education systems.