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Pia Nicoletta Blossfeld

Changes in Inequality of Educational Opportunity

The Long-Term Development
in Germany



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Pia Nicoletta Blossfeld
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1 Introduction

Over the last decades, the study of educational inequality has enjoyed a remarkable revival in many countries. This topic has particularly gained momentum alongside the evaluations of the Programme for International Student Assessment (PISA) in 2000, which were particularly for Germany, a kind of PISA shock. The overarching objective of this book is to assess the long-term development of educational inequalities according to social origin and gender in Germany.

The analysis of educational inequality is of relevance because the position that individuals attain in society as well as their life chances and well-being are strongly associated with educational attainment (Erikson and Jonsson, 1996; Goldthorpe, 2014). Higher education is often connected with higher income, better career opportunities, as well as lower risks of unemployment and precarious work (Hausner et al., 2015; Schmillen and Stüber, 2014). Furthermore, higher educated individuals often live healthier (Jungbauer-Gans and Gross, 2009; Sander, 1995; Wolfe and Zuvekas, 1997) and experience a higher subjective well-being (Wernhart and Neuwirth, 2007).

In the empirical Chapters 4 to 7 one major objective is to provide an East-West German comparison of social origin and gender inequality over children's, young peoples' and adults' educational careers and their final educational attainment. The distinction between East and West Germany is important because for about a period of 40 years Germany was separated into two different ideological, political and economic systems. Although the educational systems in the German Democratic Republic (GDR) and Federal Republic of Germany (FRG) shared the same history and culture and remained in some aspects also quite similar, for example in terms of the dual vocational training system, there are also major differences between those two educational institutions. Furthermore, after German unification, East Germany has taken over in great parts the West German educational system. However, in this process also some changes for the West German education system were introduced, which will be discussed in this book. After about 25 years of reunification, it is interesting to examine whether there are still strong differences between East and West German educational careers and educational attainments. Despite numerous research on educational inequality in the West German educational system (Blossfeld, 1993b; Henz and Maas, 1995; Müller and

Haun, 1994; Müller and Pollak, 2010), not much is known about educational inequality in the East German educational system before and after German unification (Solga and Becker, 2012). Accordingly, one of my contributions to the sociological literature is examining educational inequality in East Germany.

What makes the inquiry of inequality of educational opportunity in East and West Germany so interesting? The East and West German education systems differ notably in many respects from other modern societies:

First, for the historical period of my analyses (from birth cohort 1944 to 1986 in the National Educational Panel Study (NEPS) dataset), Germany overall was already a vanguard of the educational expansion in the early 1960s. Since then Germany has only experienced a relatively low educational expansion in upper secondary and tertiary education in comparison to other countries of the Organization for Economic Co-operation and Development (OECD) (Blossfeld et al. 2016).

Second, East and West Germany are characterized by a strong link between the educational system and the labour market (Müller and Shavit, 1998). This means that specific educational certificates are required to access and execute a particular job. Thus, education and vocational training are essential for the positioning in the stratification systems of East and West Germany.

Third, compared to other modern societies it is often highlighted that a rather small proportion of East and West Germans attains a tertiary level education so that the OECD have raised concerns about Germany's international competitiveness (OECD, 2006, p. 79). These OECD experts predict that in the process of occupational change towards more challenging service jobs and the increasing technological development more academics are needed. However, the OECD to a large extent neglects the fact that the German vocational training system, particularly the dual system, provides an attractive alternative to tertiary level education and generates a broad basis of qualified employees with occupation specific skills.

Fourth, it is often highlighted that the association between social origin and educational attainment is particularly strong and persistent in West Germany and reunified East Germany compared to other OECD countries (Autorengruppe Bildungsberichterstattung, 2016, p. 214). In no other Western country, children are separated so early into different school tracks (the 'Hauptschule', the 'Realschule' and the 'Gymnasium') (Hovestadt, 2002). In addition, the West German tracking system is known as very rigid so that it is very hard to correct for this early decision (Sandra Buchholz and Schier, 2015). Furthermore, half-day schools heavily rely on parents help with homework and exam preparation (Solga, 2008). However, it is worth noting that since the last decade, several reforms have been introduced to expand full-day care in schools and after-school children care services in West Germany (Autorengruppe Bildungsberichterstattung, 2016, p. 82).

The situation in the GDR was in some important aspects quite different. There was a comprehensive school system until the age of 15 or 16. Thus, children have not been separated into different school tracks so early (Günther and Hammer, 1979). Moreover, the educational system in the GDR was more open, providing several educational pathways on the academic and vocational tracks to enter higher education (Huinink et al., 1995). However, at the same time the access to the 'Abitur' and participation in higher education was restricted since the mid-1960s to avoid overeducation in the socialist economy. Furthermore, the influence of parents on their children was lower because there existed very well developed early childhood education and all-day schools (Günther and Hammer, 1979).

Fifth, due to more traditional gender roles, (West) Germany is characterized by a less strong increase in females' educational attainment than other modern societies.

What is very important for this book is the fact that lots of different reforms have been introduced in the lower and upper secondary school systems as well as in the system of higher education during the last decades. These reforms have been aimed to increase the permeability between the academic and non-academic tracks and to engender more educational equality for girls and boys from different social origins. First, there has been a huge expansion in the number of upper secondary schools (including different types of 'Gymnasien'). In Chapter 4, I therefore focus on the educational transition from primary to secondary school and study the long-term changes in the transition probability to the academic track and its associations with gender and social origin. I am particularly interested whether the social origin associations have increased, remained stable or even declined across birth cohorts in the German educational system. Second, there have been reforms introduced to facilitate the mobility between the academic and non-academic track in the general school system. Thus, Chapter 5 examines whether these reforms have opened up the general school system and reduced educational inequality. Third, multiple new alternative pathways from the vocational track to higher formal educational degrees and tertiary education have been created in the vocational education training system. Chapter 6 addresses whether the traditional separated vocational and academic tracks have become more integrated and reduced educational inequality. Fourth, higher education became more differentiated by the introduction of the universities of applied sciences and 'Berufsakademien'. In Chapter 6, I investigate social origin and gender differences for the graduation from the traditional universities and the universities of applied sciences.

My book aims to contribute to the literature of educational sociology by studying the associations between various aspects of family background and respondent's educational histories and final educational attainment. Thus, following Bu-

kodi and Goldthorpe (2013), I differentiate in my analyses on East and West Germany between parental education, parental class, and parental status resources. Each of those family resources is connected with specific mechanisms how those resources influence educational inequality of children, youth and young adults. The specific resources and mechanisms are explained in detail in my theoretical Chapter 2.

So, why is it important to disentangle these three social origin resources in my analyses on East and West Germany? First, I elaborate in Chapter 4 that those three parental resources point to different mechanisms on educational inequality (see also Erikson 2016 for a similar approach) in East and West Germany. Second, I show that these three parental resources play a different role for the successive transitions in the educational careers of children, youth and young adults (Erikson and Jonsson, 1996, p. 55).

Considerable progress has been made in the availability of longitudinal data in recent years, allowing me to use a well-suited dataset from the NEPS (Adult Cohort (SC6)) for secondary analysis in my book. This dataset provides rich retrospective information on educational careers in Germany, which gives me the opportunity to study inequality over educational careers in a long-term historical changing institutional context. Unfortunately, in the Adult Cohort (SC6) of the NEPS, I do not have detailed longitudinal information on competence levels, teacher assessments, ability, school performance, aspirations and subjectively expected success probabilities over the school career. Thus, I cannot explicitly include those variables in my empirical models. In Chapter 3, I provide a detailed description of the used dataset, variables and methods.



2 Theoretical Perspectives on Educational Careers and Institutions

In this chapter, I provide an overview on relevant theoretical perspectives from life course and educational inequality research. In addition, I describe the educational systems in East and West Germany.

2.1 The Life Course Perspective

In my book, I take a *life course perspective* and focus on the educational careers and the highest educational attainments of successive birth cohorts (Kohli, 1985; Heinz, 1990, p. 60; Meulemann 1990, p. 109). Already Boudon (1974) notes that *educational attainment is the result of a process of choices and constraints*, which are defined by the educational system. The life course provides therefore a suitable framework for studying the movement of individuals through the educational system. Kerckhoff et al. (1996) suggests using the term educational career as synonymously with educational trajectory or educational history, which is the outcome of a sequence of individual's educational choices in an institutional setting. In contrast, the term educational pathway refers to the institutionally defined possible routes in the educational system (Pallas 2003).

I am interested to examine how differences in starting conditions of children from different family origins shape their educational trajectories until the highest educational attainment. Furthermore, I want to find out how individuals' previous educational histories influence subsequent educational decisions and highest educational attainments (Blossfeld and von Maurice, 2011, p. 21; Lucas, 1999, p. 92). I am particularly interested to study how far educational reforms, and the new educational pathways they offer, change the opportunity structure over the educational career. I also assess how social origin resources of individuals are associated with the participation in alternative educational pathways. For my analyses, I use detailed longitudinal data on the educational careers of East and West German children, young people and adults, which is offered by the NEPS.

2.2 The Five Principles of Life Course Research

There are five central aspects of life course research that I address in this book (Elder, 1998, p. 4; Mayer, 2009, p. 414). These are (1) the principle of embeddedness in historical time and place; (2) the principle of timing of events and transitions; (3) the principle of linked lives, (4) the principle of human agency and (5) the principle of life span development. In the following, I describe these five theoretical perspectives with regard to individuals' educational careers.

The first principle, *the principle of embeddedness in historical time and place*, emphasizes that educational careers are shaped by historical periods and specific locations. In my book, I take into account the impact of the periods before and after German unification and the different institutional set-ups in the GDR and FRG on individuals' educational careers and highest educational attainments. In addition, I analyse how the institutional transformation from a socialist to a capitalist system has affected educational careers of East Germans. I also explore how a large number of educational reforms introduced in East and West Germany in the last decades have changed educational histories and outcomes. Furthermore, I assess how changes in families' perception of gender norms have shaped men's and women's educational trajectories and educational attainment across birth cohorts in 21 countries and in Germany in particular. To conclude, from a life course perspective, it is important to take into account these different historical and country contexts to better understand the constraints and opportunities that individuals face while making educational decisions (Mayer, 1991).

The second *principle is the timing of events and transitions*. It points out that the consequences and the impact of educational events and transitions depend strongly on when they exactly occur during the educational career. In my book, I examine whether children that make the transition to the academic track straight away after primary school may experience different later educational opportunities than children that moved up to the academic track at a later stage or obtained higher educational certificates via second chance education.

In addition, in the FRG and reunified Germany the most important transition into different school forms after primary school takes place at a relatively early age of 10 or 12 (Trautwein and Neumann, 2008) compared to the GDR where tracking into different school types took place at an age of about 15 (Günther and Hammer, 1979). Early selection divides children into different school tracks that differ in their school curriculums, socialization and demands (Lucas, 1999, p. 13; Müller and Pollak, 2010, p. 309), within which the school environment is relatively homogenous with children having similar educational aspirations, self-concepts, family backgrounds and school performance. The earlier this tracking takes place the earlier children are exposed to different contexts that might influence their future educational prospects (Hanuschek and Woessmann, 2010; Müller and

Pollak, 2010, pp. 309–310). Therefore, in my book I examine whether early tracking in the former FRG and reunified Germany is associated with higher social inequalities for children's final educational outcomes than in the GDR.

The third principle of life course research is that *the lives of individuals are linked*. It means that the educational careers of individuals should not be studied in isolation from other significant individuals (Mayer and Tuma, 1990). For children, youth and young adults the family of origin is an important social context that has to be taken into account. In my book, I concentrate on the intergenerational links between parents and their children. Differences in educational, economic and social resources among families may have a direct influence on educational transitions and the final educational outcomes.

The fourth principle is *human agency*, which means that although individuals are constrained in their decisions via external circumstances, such as institutional regulations of educational systems and the availability of family resources, they still make choices within the context of their available options (Dannefer, 1987; Heinz, 2003, p. 13; Hillmert, 2010; Mayer and Müller, 1989). This means that educational trajectories are not completely determined by the institutional set-up and the social structure. Human behaviour can therefore only be predicted on the basis of probabilistic models. Different educational choice models will be discussed in more detail in Section 2.4.

The social and institutional constraints, however, give individuals more or less room to realize their individual agency. In the analysis of education trajectories in East and West Germany before German unification, one should therefore keep in mind that under the Socialist Unity Party (SED) in the GDR, individual decisions were more constrained (Lenhardt and Stock, 2000, p. 523; Mayer, 1998). In the centrally planned economy of the GDR, educational policies and the educational system had to serve the demand of the socialist society for education and qualifications (Huinink et al., 1995; Lenhardt and Stock, 2000). The state had the control over access and denial to the vocational and academic tracks (Huinink et al., 1995, p. 100). The access to 'Erweiterte Oberschule' was restricted in the mid-1960s (Trautwein and Neumann, 2008, p. 472). Students at university level were not free in their study subject choice either (Solga and Becker, 2012, p. 29). In addition, there was a quota for the access to different school tracks which was proportional to the size of different social groups (e.g. gender, social origin or place of residence) (Huinink et al., 1995, pp. 91, 98; Solga, 1995b). After German unification, East Germans had much more room to make their own educational decisions. Moreover, in my book, I study how far educational reforms have opened up new choices for individuals and how those choices are used by individuals with different family resources.

The last *principle of life course research* is that there is a *life span development*. This means that subsequent educational decisions and outcomes are highly contingent on previous educational achievements, educational decisions, and educational trajectories (S. Hillmert, 2009, p. 217; S. Hillmert and Jacob, 2010, p. 60). Using the NEPS dataset, I am able to reconstruct how previous educational decisions for the academic or non-academic track as well as previous educational certificates influence later educational outcomes. Moreover, I analyse how later educational corrections of previous educational decisions influence individuals' final educational certificates.

2.3 Social Origin Resources

In my book, the empirical analyses of the association between social origin and children's educational careers and final educational attainments are based on various concepts and measures of social origin. Using the NEPS data in Chapters 4 to 7, I am able to apply a multidimensional approach of social origin (Bukodi and Goldthorpe, 2013; Marks, 2011; Weber, 1976) and distinguish parental education, parental class and parental status. I follow the idea that these various indicators represent different mechanisms of social origin which should be taken into account if one wants to understand inequality of educational opportunities (Bukodi and Goldthorpe, 2013; Chan and Goldthorpe, 2007). Furthermore, I am interested to study how far the associations of the three social origin measures with educational transitions and final educational outcomes are changing differently across cohorts (Buis, 2013; Bukodi and Goldthorpe, 2013).

The first social origin indicator that I am using in all my empirical analyses is parental education. Many empirical studies have demonstrated that parental education is obviously the most important social origin measure affecting children's educational inequality (Baker, 2014; Buis, 2013; Ermisch and Francesconi, 2001; Mayer et al., 2009). This is the case because parental education comes causally and temporally before parents achieve their class and status positions and parent's education has a strong impact on both of these measures of family background (Pfeffer, 2008, p. 544). Across cohorts, parental education also seems to have gained in relative importance because the lengthening of compulsory education, the general improvement of living conditions and the declining average family size have led to a reduced influence of economic factors such as parental class on children's educational inequality across birth cohorts (Blake, 1989; Erikson and Jonsson, 1996a; Breen et al., 2009).

For the empirical analysis of educational inequality in Chapters 4 to 7, parental education can be particularly considered as a variable that captures parents' *capacity to support their children with homework* and to guide them *through the*

educational system (Bukodi and Goldthorpe, 2013, p. 3). I use the CASMIN educational scheme which was developed in the ‘Comparative Analysis of Social Mobility in Industrial Nations (CASMIN)’ project to define parental education.

Two further concepts of social origin play an important role in social stratification. These are class (‘Klasse’) and status (‘Stand’) (Weber, 1976). According to Goldthorpe (2012, p. 212) these two concepts are relational. This means that they reflect social relationships in form of employment relationships and superiority or subordination within which individuals possess a more or less advantaged position (Goldthorpe, 2012, p. 204). I first present the definition of class and then discuss the mechanisms of how class influences educational inequality in more detail. According to Weber (Weber, 1976), individuals share the same *class position* if they dispose of similar economic goods or qualifications and skills that can be translated into income or other benefits on the market (see also Mayer, 1977, p. 159; Müller, 1977, p. 25). Differences in class positions of individuals have a strong impact on their life chances and life decisions. Individuals that share similar market situations are defined as a *class*. Individuals from different class positions vary in their possibilities to enforce their economic and political interests (Haller, 1983, p. 38). All the class positions between which inter- and intragenerational mobility is very likely form a common *social class* (see also Breen, 2005, p. 32). For the analysis of educational inequality, Bukodi and Goldthorpe (2013, p. 2) claim that *class* is especially an indicator for *economic resources* that are available in families to support and help their children in school. I also argue that the class position is associated with the possibility to make farsighted educational decisions. In Chapters 4 to 7, I conceptualize and operationalize families’ classes by referring to one of the most popular international comparable class schemes which was developed by J. H. Goldthorpe, namely the Erikson-Goldthorpe-Portocarero (EGP) class scheme.

Another dimension of social inequality which is mentioned by Weber (1976) is *status* (‘Stand’). A society is also stratified according to differences in social deference which become in praxis visible by more exclusive social relations (Mayer, 1977, p. 155).¹ Status groups try to preserve economic advantages on the market by social inclusion and exclusion. Individuals in society are treated differently according to their observed distinguishing life styles, socialization and other ascribed characteristics. These differences in attitudes and life styles define with whom people interact, who their friends are and whom they marry. In the context of educational inequality, Bukodi and Goldthorpe (2013, p. 3) posit that *parental*

1 This definition of status should not be confused with its second meaning. In the American context, (socio-economic) status is namely better understood as a measure to describe the position of individuals in a social inequality structure (Rössel, 2009, p. 128).

status is an indicator which measures social and cultural resources that are available to families such as parental *social networks* and their *cultural tastes* which both are seen as factors that generate educational inequality. As an indicator for measuring status differences in Chapters 4 to 7, I apply the Cambridge Social Interaction and Stratification (CAMSIS) scale (a similar proceeding can be found in Bukodi et al., 2014 or Erikson 2016 for Sweden).

Weber (1976) makes three remarks on the relationship between class and status: First, he claims that class and status are distinct dimensions in societies, but they are also complementary and highly interwoven. Status can be dependent on individuals' economic resources, which are determined by their class position on the market. However, status differences can also be generated by differences in other criteria such as education (Mayer, 1977, p. 159). In turn, access to higher occupations and therefore to a specific class position may be restricted to exclusive groups such as status groups (Mayer, 1977, p. 169). Second, the importance of class and status varies across historical contexts: In former feudal societies, status played a more significant role while in industrial societies class seems to be the dominant dimension. The same is postulated for capitalist and socialist societies (Bukodi, 2010; Goldthorpe, 2008; Solga, 1995b). Status is seen as more relevant in socialist societies and class in capitalist societies. Third, the distinction between status and class has also an analytical component of different forms of social inequality (Mayer, 1977, p. 160). If one only studies social inequalities using the concept of class, then one only analyses economic inequality on the market. For example, Goldthorpe (2008, p. 351) demonstrates that for the analysis of unemployment risks, career opportunities and income inequality on the labour market, class captures more than status. Social inequality in a society, however, is more complex and includes stratification by other qualitatively different forms such as status (Haller, 1983, p. 45). For instance, in the domain of cultural consumption of music, theatre or cinema, status can better explain social inequalities than class (Goldthorpe, 2008, p. 351). Goldthorpe also writes that '*[...] there is a considerable status variation within the classes of the class schema [...], although the variation is greater within some classes than others. Hence there is plenty of scope to get different effects of class and status from one domain of life chances and life choices to another.*' (Goldthorpe, 2008, p. 351; see also Mayer, 1977, p. 229 for similar conclusions on Germany).

2.4 Educational Decisions

During the educational career, children and their families are several times confronted to make decisions on which educational branch to choose or whether to continue education or to drop out (Maaz et al., 2006, p. 299). For example, in the German educational system families have to make the decision whether to send