

EDUCATIONAL SYSTEMS AND PERCEIVED SOCIAL INEQUALITY

The institutional base of class formation

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ABSTRACT: This paper investigates the effect of intra-generational mobility patterns on collective social action. We start with the assumption that employees tend to collective action in pursuing their economic interests only if their social position is homogeneous, stable in time and characterized by privileges (or structural disadvantages). We believe that patterns of intra-generational mobility (and not only those of inter-generational mobility) are crucial for these preconditions of collective action. These conditions can come into effect only in systems of 'closed positions', where intra-generational mobility is restricted. In systems of open positions, a high degree of intra-generational mobility prevents the existence of homogeneous, stable and privileged social positions.

In addition, the institutional arrangements of a given society, especially the educational system, determine to a great extent whether occupational positions are closed or not. In societies with standardized, stratified and differentiated educational systems, intra-generational mobility is restricted by credentialist allocation regimes so that the three conditions are fulfilled and patterns of collective action have a high probability of arising.

This hypothesis is tested by an international comparison of effects on perceived social inequality using data from the International Social Justice Project (1991, 1996). It turns out that, as expected, in credentialist countries, educational titles and class position have stronger effects on perceived social inequality than in non-credentialist societies. But it was found that the economic system also plays an important role in the structuring of perceived inequality.

Key words: educational systems; intra-generational mobility; social inequality

1 Introduction

The relevance of the term ‘class’ for analysing social inequality has recently been the subject of debate. On the one hand, some authors believe that ‘class formation’ is a central feature of the structure of social inequality in industrial societies (cf. Goldthorpe 1987; Erikson and Goldthorpe 1992). On the other hand, however, some researchers already speak of the ‘death of class’, meaning that the notion of ‘class’ is no longer useful in explaining social action.¹

In this paper, the assumption is made that ‘class formation’, as well as its counterpart ‘individualization’, are not universal features of modern, industrial or ‘post-industrial’ societies. Rather, one might think of a continuous scale marking the degree of ‘class formation’ in different countries, depending on the institutional framework of a given society. Patterns of intra-generational mobility are recognized to be crucial for defining class barriers. Since these patterns of intra-generational mobility vary according to the shape of the educational system, educational systems may also influence the pattern and degree of class formation.

We shall examine this question, using data obtained from the International Social Justice Project (ISJP 1991, 1996), by investigating the effect of education and class on perceived social inequality in six countries. It can be shown that, in ‘credentialist’ countries, meaning countries with highly standardized, stratified and differentiated educational systems, the effect of education on perceived social inequality is much stronger than in the non-credentialist countries. As expected, the impact of class is also stronger in credentialist countries; that is to say, credentialism and class formation go hand in hand.

2 Social inequality and social action

Why should class position be of any relevance at all for people’s attitudes and for their social action?² This question is at the centre of class theories that deal with ‘class formation’. According to these theories, the common experience of privileges or disadvantages tied to certain class positions forms subjective perceptions and evaluations of inequality. Members of

1. See the discussion of ‘class’ in Clark and Lipset (1991), Clark *et al.* (1993), Hout *et al.* (1993), Pakulski (1993) and Manza *et al.* (1995).
2. The *theoretical* part of this paper deals with the explanation of social action that maximizes utility. However, since the datasets used in the *empirical* part do not contain information about observable social action, the test of the proposed hypotheses is based on variables describing attitudes (‘subjective social status’). It is assumed that such attitudes are relevant for social action. Rational-choice approaches are not discussed, but are believed to be in line with the arguments presented (see Groß 1998: 7–34).

the same class have similar economic interests: members of a privileged class will want to preserve their advantages while members of disadvantaged classes will strive to change the structure of inequality. In so far as these interests are based on the structure of inequality itself, they can be seen as 'structural interests', which will be expressed in class-based and thus collective action patterns. There are three factors that are of particular importance in forming structural interests and collective action patterns:

First, the *homogeneity of social classes*. The more homogeneous class members are with respect to their socio-economic characteristics, the more likely it is that collective patterns of action will arise; the more heterogeneous these members are, the more the classes will be divided into different 'fragments'. This is likely to lead to separate interests, and hence to different action strategies for improving or preserving the economic situation of class members.

Second, the existence of *exploitative relationships*. Structural interests and the collective action strategies that are based on them will tend to become unlikely where a society's wealth is distributed according to a commonly accepted standard. The extent and the determinants of inequality will be perceived as legitimate, and collective efforts to change this mode of distribution will not be easy to justify.³ On the other hand, if certain social groups receive less (and, accordingly, others receive more) than their due according to the common standard, the underprivileged group will likely be highly motivated to change the modes of distribution, whereas the privileged group should be interested in keeping everything the way it is.⁴

The third important factor is the *stability of social status*. Structural interests and collective action patterns are particularly likely to develop in those societies where the structure of social inequality is stable in the sense that individuals cannot leave their positions. The only way to improve one's social status would then be through changing the structure of social

3. The widely accepted 'functional' principle of justice (Wegener 1992: 275) legitimates the unequal distribution of wealth (see also Liebig and Wegener 1995; Wegener and Liebig 1995). 'Privilege' is used to denote not only the fact that some people have more resources to establish a comfortable life style than other people, but also that the appropriation of these resources is not legitimate according to accepted principles of justice.

4. Such an exploitative relationship is postulated, for instance, in Marx's class theory. Exploitation is a pillar of his theory of action: proletarians strive for revolution because they are being exploited by capitalists (cf. Sørensen 1991). Another form of exploitative relationships is found in Weber's concept of 'closure' (Weber 1980: 23), which is, at least implicitly, a major part of all modern class theories and has been explicitly incorporated into class theory by Parkin (1979). The formation of exploitative relationships through processes of closure will be discussed in more detail in the following sections.

inequality itself, for instance through changing the modes of distribution. This can be achieved only through collective action (cf. Sørensen 1991). Things are different where it is easy to change one's social status. Here, individual strategies of action, such as, say, investment in human capital or career ambition, would make more sense than pinning one's hopes on strikes or other unreliable collective actions. On top of that, for collective patterns of perception and action to ensue, people need to have been stuck with the same status for a certain amount of time;⁵ where people are permanently changing their status, it is highly unlikely that they will identify with one specific status and form collective action patterns accordingly.

It seems plausible that these three factors contribute to collective social action coming into effect, but they may not, on their own, be sufficient to evoke collective action. Cultural features of a society as well as historical events may prevent social action even if all three factors are prevalent; the Indian caste system, for example, seems to be quite stable. However, these three factors are believed to increase the *probability* of collective social action.

The decisive question, then, is: in which kind of societies are the three factors prevalent? It is widely acknowledged that the answer is partly to be found in the extent and pattern of inter-generational mobility in a society. Restricted social mobility coincides with a high stability in social status, whereby classes become homogeneous in terms of social background. Some classes will become permanently privileged once their social status has become hereditary (a mode of status attainment that has increasingly lost its legitimacy in the course of industrialization). Other classes will become permanently underprivileged. The patterns of inter-generational mobility reveal whether the conditions that breed 'class consciousness' and corresponding collective action patterns – homogeneity, stability and exploitative relationships – are in place. This is probably one of the main reasons why social inequality research has concentrated for so long on inter-generational mobility.⁶

The question of intra-generational mobility processes has been very much neglected, although there are clear signs indicating that the extent and pattern of intra-generational mobility can also have a strong impact on perception and action. This is a point made in particular by Sørensen in his 'theory of closed positions' (1983). It puts the focus on modes of allocation and distribution in the labour market and analyses their effects

5. Goldthorpe expresses this idea in the term 'demographic identity'.

6. This topic underlies Goldthorpe's studies in particular (cf. Goldthorpe 1987, 1990; Erikson and Goldthorpe 1992).

on the structuring of social inequality. This theory will be briefly outlined in the following section.

3 Systems of open and closed positions

Sørensen distinguishes between ‘open’ and ‘closed’ positions: ‘Positions will be referred to as closed when they are available only when vacated by the previous incumbent. . . . In contrast, incumbents of positions in open position systems can be replaced at any moment in time’ (Sørensen 1983: 206). Closed positions, as opposed to open positions, are stable over time. Open positions can be created according to the company’s needs and can be got rid of just as easily. A closed position, however, cannot easily be done away with once it has been installed. This permanence over time creates an *existence independent of individuals*.

Only systems of closed positions have a ‘structure’ in the sense that we can talk of them as existing independently of the individuals assigned to them and as having stable relationships with other closed positions. In internal labour markets, for instance, certain workplaces, defined independently of specific individuals, represent a career ladder. In systems of open positions, positions and individuals cannot be separated: positions arise when an individual is taken on and disappear when the individual leaves the company.

The distinction between open and closed positions⁷ is an important factor in determining processes that generate social inequality, i.e. processes of intra-generational mobility and the corresponding rules of distribution of wealth. In systems of open positions, people can easily be dismissed without firing costs, and employees can change employers at any time. Thus, no barriers to intra-generational mobility arise, ensuring that wages will always equal productivity: employees whose productivity is lower than their wage will be dismissed, and badly paid employees will search for a better job.

Things are different in systems of closed positions. First, since positions can be abolished only if the incumbent quits, employees are hired only if they are needed in the long term. Therefore, the given ‘opportunity structure’⁸ of a system of closed positions becomes important in determining intra-generational mobility. Second, since payments are tied to specific positions and unproductive employees cannot be dismissed, an

7. This distinction is, of course, somewhat overdrawn. Nearly all positions are situated somewhere *between* the antipodes of ‘closed’ and ‘open’. The following sections may be read as a polarized discussion that aims at clarifying the basic ideas of the theory of closed position and its implications for class formation.

8. See Sørensen (1983: 212–14).

employee's productivity may lag behind his salary, which is not adjusted. In that sense, we can conceive of 'rents' for employees (Sørensen 1991) in closed positions that constitute efficiency deficits for their employers.⁹ Third, therefore, employers must assess the *future* productivity of employees when hiring. They need 'screening' signals that can easily be observed, that reliably predict productivity and are stable over time. Since, in addition to educational titles, gender and ethnic origin are believed to be such signals, ascribed attributes of individuals, i.e. attributes tied to certain social groups, become important determinants of social mobility (Sørensen 1983: 210).

The three factors fostering collective social action clearly come into effect in systems of closed positions. In systems of *open* positions, high intra-generational mobility leads to *low stability* of social positions. Since only the productivity of the employees, i.e. their qualifications for and performance on the job, determine intra-generational mobility, employees are *heterogeneous* in terms of 'ascribed' attributes. Payments according to productivity correspond with the functional principle of justice and the 'meritocratic ideal' (Marshall *et al.* 1997), and *privileges* for certain social groups *cannot* be established. In these circumstances, collective patterns of social action are not to be expected; rather, individualistic patterns of action, such as investing in human capital or other attempts to speed up a career, seem to be more successful.

On the other hand, in systems of *closed* positions, the barriers to intra-generational mobility enforce the three conditions of social action. Since career mobility is limited by the given opportunity structure, positions are more *stable*. As only individuals with certain characteristics have access to closed positions, systems of closed positions are *homogeneous* with respect to these characteristics: men, Germans, employees having certain educational certificates or a certain social origin are found in closed positions. Moreover, these positions are the base of *privileges* since they generate 'economic rents'. All in all, we can expect social groups who have succeeded in occupying closed positions to be interested in defending the privileges attached to these positions; that is, interested in keeping the positions closed and controlling the access to these positions.

Thus, the theory of closed positions highlights the impact of *intra-generational* mobility regimes on the patterns of social action. Till now, this impact has largely been neglected in favour of *inter-generational*

9. The fact that earnings in systems of closed positions are to a large extent independent of actual performance makes it necessary to introduce career ladders, payments of above-market salaries and other incentives. The efficiency-wage approach (Katz 1986), for instance, is in that line of thought. Alternatively, of course, one can try open positions – which is the aim of 'deregulation' (Traxler 1994).

mobility. But there are reasons to believe that processes of inter-generational mobility are not sufficient to explain patterns of social action: though patterns of inter-generational mobility are quite stable over time and largely do not vary between societies (Erikson *et al.* 1982, 1983; Erikson and Goldthorpe 1992) there is empirical evidence that patterns of social action are different between societies (e.g. Haller 1989) and may change over time.

If the assumptions of the theory of closed positions are true, then the differences between patterns of intra-generational mobility could at least partially explain the differences in patterns of social action. In societies with open labour markets we would expect processes of 'individualization'; in societies where systems of closed positions are prevalent we could observe patterns of collective action. But the theory of closed positions says nothing about *how* social action is patterned in systems of closed positions or about *which* determinants explain social action, i.e. *which* social groups tend to engage in collective social action. This depends on which criteria are used to exclude people from closed positions. Whether sex, ethnic origin or social origin give or do not give access to closed positions is not a topic of the theory. We have to study the institutional framework of a society carefully or, in other words, reveal the dominant 'modes of closure' (Parkin 1979) of a society. In the following section, educational systems and their consequences for the patterns of social action are discussed in order to clarify the interdependence of institutions, intra-generational mobility and social action.

4 Educational titles and the patterns of social action

All modern theories of social inequality perceive education as an essential feature of social inequality. But different theoretical approaches assume very different functions for educational titles in the process of generating inequality. In the context of class theories (Wright 1982; Wright *et al.* 1989; Goldthorpe 1985; Bourdieu 1983, 1988), educational titles are sometimes seen as *criteria of exclusion* that are used for keeping out of valued positions.¹⁰ On the other hand, proponents of the functionalist stratification theory (Davis and Moore 1945) and of the status attainment approach (Blau and Duncan 1967; Sewell *et al.* 1969, 1970; Sewell and Hauser 1992; Treiman and Yip 1989; Treiman and Yamaguchi 1990) contest this function of education and see educational certificates as signals of qualification only. According to them, educational titles are

10. Bourdieu (1983: 189f.) stresses this point in his view of educational titles as 'objectified, institutionalised cultural capital'. The function of educational titles as a mean of closure is at the core of Parkin's class theory (Parkin 1979, 1983; Murphy 1988).

relevant only for placing people in occupational positions because they guarantee that the holder of a certain title possesses the *qualification* necessary for the job.¹¹

The question as to which of these functions is more important is crucial in evaluating education as a base of inequality. If educational titles work as a means of exclusion, then they are a base for privileges: as long as certain certificates are necessary for access to certain positions, the number of possible candidates who could reach those positions will be small. But this restriction of the market mechanism leads to reward of the position that exceeds the reward which could be expected in a 'free market', that is it leads to positional rents.¹² Furthermore, social mobility will be restricted. In modern societies, acquiring educational titles is the principal means of inheriting social position.¹³ But, if mobility is restricted, social classes will be homogeneous in respect to social origin. In short, if educational titles work as means of exclusion, we find the condition that leads to social action as 'class formation'.

Things are different if educational titles work only as signals of qualification. The placement of people in positions is then in accordance with the meritocratic ideal. Under these conditions, privileges are diminished and not increased if people with high educational titles get the better-paid jobs. Since, in principle, every one can acquire an educational title, every individual can attain a good position. In so far as members of the lower classes, ethnic minorities, women or other disadvantaged groups have access to educational titles, education is the main way to increase social mobility, and thus social classes become more heterogeneous. In this sense, the increasing importance of educational titles for structuring the mobility process is seen as a sign of an open society that no longer perceives itself as class based and that tends increasingly to individualistic patterns of social action (cf. Blau and Duncan 1967: 440).

At first glance, it seems to be surprising that two such very contrary looks at educational titles exist in sociological literature; the more so as it seems that the two functions exclude each other. But in the following section, it will be shown that the two functions not only do not exclude each other, they even strengthen each other: the more educational titles

11. It is important to distinguish clearly between qualification and educational title. Qualifications are personal job-relevant skills and knowledge. Educational titles are formal certificates. People without educational titles may very well be highly qualified for certain occupations. It is a moot point as to how strong the association is between title and qualification, or, in other words, how valid educational titles are as indicators of qualification.
12. Murphy calls this the 'bourgeois conception [of exploitation]' (1988: 100) within processes of closure that are justified with, among other things, educational titles.
13. Cf. esp. Parkin (1979). Bourdieu stresses this function of educational titles in talking about the possibility of transforming of economic and cultural capital (cf. Bourdieu 1983).

can be used as signals of qualification, the more they can be used as a means of exclusion. This will be obvious if one looks at the properties of educational titles that are necessary to perform the two functions. Additionally, it can be shown that these properties depend on the structure of the educational system that produces the educational titles.

4.1 Properties of educational titles

Let us first take a look at educational titles as signals of qualification. The question here is: how well do educational titles serve as indicators of job-relevant qualifications? This depends on how well the following standards are developed.¹⁴

The link between educational titles and qualifications must be *unambiguous*. This is the case if there are clear rules describing which qualifications have to be acquired in order to obtain a title. The link between educational title and qualification becomes ambiguous if students can get the same educational title via different routes within the educational system, if curricula vary widely within the same type of schools, or if clear examination procedures do not exist. In those cases, it becomes unclear what qualifications the holder of a certain educational title really has. Educational systems differ substantially in this respect. In some countries, nationwide curricula, highly regulated teacher training, etc., ensure that educational titles are unambiguous; in other countries, curricula differ greatly between regional areas or even cities, teacher training is not regulated and so on. An educational system is called standardized if all the institutions in the system (schools of different kinds, courses in firms, universities) that provide a certain title teach the same qualification. The more centralized the administration of an educational system, the higher the probability that this system is standardized.

Educational titles must be *specific*. They can stand for general knowledge such as the ability to read, to write or to calculate. They can also be designed for specific occupations. This is the case with apprenticeship certificates or other requirements for certain occupations. These latter educational titles are used as proof that the holder has all qualifications necessary for the corresponding occupation. The degree of specificity of

14. For the following exposition, see Allmendinger (1989), Brauns *et al.* (1997), Groß (1998), Haller (1989), Hopper (1968), Turner (1960), Kappelhoff and Teckenberg (1987), König and Müller (1986), Müller *et al.* (1990, 1998) and Müller and Shavit (1998). One of the main problems of studies that investigate the role of educational systems in the extent and pattern of social mobility is a lack of a proper description of the educational systems. The studies mentioned here partly use different terminologies to describe the main characteristics of the educational systems. The four dimensions used in this paper seem, in my opinion, to be sufficient for this purpose.

educational titles increases as the degree of differentiation of the educational system increases. Two aspects of differentiation can be distinguished. *Vertical differentiation* means that educational systems may be divided into different tracks that are made up of different kinds of schools that provide different qualifications and lead to different kinds of jobs. Depending on how early children are separated into these tracks, how difficult it is to change from one track to another and how far an educational system is separated into tracks, the link between educational titles and occupations can be tighter or looser. Societies that have a highly vertically differentiated educational system generally have strong ties between certain levels of educational title and corresponding levels within the system of occupational stratification.

Horizontal differentiation refers to whether there are certain tracks that correspond to specific occupations, as is the case with the 'dual system' (Münch 1987) in Germany. In horizontally differentiated educational systems, a wide range of specialized titles exist that can be used for certain occupations only.¹⁵

One of the major tasks of educational systems is to *select* the pupils according to their talents, motivation and effort. If only those pupils who are bright, who are particularly motivated and who put a lot of effort into their work are allowed to obtain a certain title, employers can be sure that the holder of such a title is worth his money. Only selective educational titles can ensure that the holder of a certain title is particularly qualified. Selectivity of educational titles depends on the degree of *stratification* of the educational system. Educational systems are stratified if there are relatively few bearers of high-level compared to low-level educational titles because entry into higher education is restricted. The more unambiguous, specific and selective educational titles are, the stronger the link is between those titles and the required qualification, and the better can they be used as screening devices. But these characteristics – unambiguity, specificity, and selectivity – not only influence the function of educational titles in their use as signals of qualifications; they also have an important impact on their function as a means of closure.

A given educational title can be used as a means of closure only if institutionalized rules make that title a job requirement.¹⁶ These rules can be laws that require certain educational titles for entrance to certain occupations or just customs of recruitment for positions in firms that

15. The tight link between educational title and qualification based on the apprenticeship system is a common result of studies comparing the German educational system with the educational systems of other countries (e.g. Allmendinger 1989; Groß 1998; Kappelhoff and Teckenberg 1987; Müller and Shavit 1998).

16. The role of institutional rules in making educational titles exclusive has been revealed by Parkin (1979) and Collins (1979). See also Murphy (1988).

require certain certificates. Only such rules enable individuals to exclude possible competitors from the access to the desired position.

Employees who have distinguishing certificates are interested in such rules. They profit most from the exclusionary power of educational titles. Employees' organizations, such as unions or professional associations, make great efforts to establish such rules. But attempts to establish such allocation regimes might be questioned – by employers, who might fear efficiency losses from such allocation regimes, or by groups of employees who would be excluded from desired positions. In fighting against such allocation regimes, these groups could claim that the meritocratic ideal is violated by using educational titles to exclude people.

Therefore, establishing rules requiring certain titles in order to access certain occupational positions is possible only if one can be assured of a tight link between educational title and qualification. If educational titles are unambiguous, specific and selective, professional associations or unions can reason that this link exists and that the allocation of persons to positions according to their educational title is in line with the meritocratic principle.

Assuming that these points are accurate, it follows that the more unambiguous, specific and selective educational titles are, the better they can be used both as a signal of qualification and as a means of closure. Both functions run parallel, so to speak. This is also made clear in Collins's (1979) use of the term 'credentials': those educational titles are credentials that can be used as a means of closure *because* they are simultaneously reliable signals of qualification (or at least are taken as such). Therefore, societies with standardized, stratified and differentiated educational systems, which produce such educational titles, are often called 'credentialist'.

4.2 Educational systems, closed positions and the pattern of social action

So we can assume that in societies with standardized, stratified and differentiated educational systems, educational titles can be used as credentials. But what consequence does this have for the closing of occupational positions, for the structuring of attitudes as perceptions of social inequality and for the structuring of social action?

We can make the hypothesis that, in societies with standardized, stratified and differentiated educational systems, educational titles play an important role in placing people into occupational positions. Since educational titles are good signals of qualification, employers can use them as 'screening devices' to estimate future productivity when hiring employees.

At the same time, employee organizations have a good starting point to legitimate allocation rules that require certain educational certificates for entering corresponding occupational positions. That is to say, in spite of contrary interests, employers and employees agree with each other on rules that require educational titles as prerequisites for occupational positions.

This means in turn that occupational positions become closed: only individuals with the appropriate educational titles have access to certain occupational positions. This means that the extent of intragenerational mobility is lower than in societies where educational titles cannot be used as screening devices and therefore as means of exclusion. In such societies (i.e. in societies with unstandardized, unstratified and undifferentiated educational systems), employees have to be selected during a longer probation period after entering the firm. Qualification has to be acquired as 'training-on-the-job', which involves frequent moves between the jobs that form a career ladder in internal labour markets.¹⁷

Under these conditions, two preconditions of collective social action are fulfilled in credentialist societies. Social position is more stable than in non-credentialist societies and, at the same time, members of social classes are homogeneous in at least one respect: incumbents of similar occupational positions have similar educational certificates.

But how about the third precondition of collective action? Do we find privileged positions in credentialist societies, positions that have positional rents as outlined above? The answer is not unequivocal. Positions can bear rents only insofar as employees succeed in closing positions. Established closed positions are more likely if educational systems are standardized, stratified and differentiated. But employers who fear efficiency losses as well as employees who fear being excluded (i.e. employees without educational credentials) can be expected to try to keep positions open.

Concerning employers, closed positions might seem to be efficient from their point of view: hiring costs are low because extensive screening and training on the job are not necessary, and the long-term employment of highly qualified employees can be desirable as well.¹⁸ Open positions would possibly lead to lower wages and enhance the productivity of some employees, but the costs of hiring and training employees would be higher. From this point of view, positional rents would just outweigh turnover costs, thus closing positions would not threaten efficiency. On

17. This relation between educational systems and intra-generational mobility processes has been investigated for the first time by a project comparing France and Germany (Lutz 1976; Brossard and Maurice 1974). See also Allmendinger (1989) and Müller and Shavit (1998).

18. See the discussion of turnover costs in Lindbeck and Snower (1988).

the other hand, positional rents have to be taken seriously: If the loss in productivity from employees in closed positions is greater than the reduction of turnover costs resulting from closing positions, then efficiency is threatened by systems of closed positions.

General conclusions cannot be drawn about whether production in systems of closed positions is less (or even more) efficient than production in systems of open positions. Measuring productivity and estimating the costs and benefits of a different labour system are very difficult even at the firm level; they are impossible for a whole society. So it is not surprising that a lengthy and open-ended discussion is taking place about the efficiency of production in systems of closed positions (or 'internal labour markets').¹⁹ The actual debate on the necessity versus the danger of the 'deregulation of labour markets' in the course of 'globalization' mirrors the ambiguity of this topic (e.g. Adamy 1988; Bode *et al.* 1991; Emerson 1988; Cartellieri 1994).

From the point of view of employees, educational titles establish privileges, at least when used with credentialist allocation regimes. Even if positional rents are efficient, they are to be understood as 'extra' income that could not be reached in systems of open positions. If market competition were prevalent, more people would have access to the protected occupational positions, resulting in lower incomes. One way of looking at this is that the same gross national product is divided among fewer people in systems of closed positions. While individuals with appropriate certificates have secure and well-paid jobs, people without credentials are found in unstable, badly paid jobs or are unemployed.

In sum, we can state that in societies with standardized, stratified and differentiated societies the preconditions of collective action are *more* prevalent (or are prevalent with a higher probability) than in societies with unstandardized, unstratified and undifferentiated educational systems, because of the existence in these societies of privileged positions (at least from the point of view of the employees), whose incumbents are homogeneous (at least in respect to their educational titles) and retain their positions for a long time.

Thus, we can summarize our arguments in the following 'general hypothesis': the more standardized, stratified and differentiated the educational system, the higher the degree of credentialism. This means a) that you will find little intra-generational mobility in these countries, b) that educational titles will act as the main determinant of social mobility and c) that attitudes and behaviour will be highly dependent on education. At the same time, class position will also have an increasingly strong

19. The ambiguity of this problem is mirrored in the discussion of whether internal labour markets are efficient or not (Lang and Dickens 1994; Farkas *et al.* 1994; Granovetter 1994).

impact on attitudes and behaviour.²⁰ As far as this last point is concerned – the structuring of attitudes²¹ – we shall examine our hypothesis on the basis of surveys conducted in six countries: East and West Germany,²² the UK, the US, Russia and Hungary.

5 The formation of attitudes in six countries: hypotheses

In order to develop hypotheses on the degree of class formation in the different countries, we must take a look at their educational systems. Because of space and time limitations, a detailed description cannot be given here;²³ only the ratings according to the four dimensions described earlier are presented.²⁴

In Hungary, as well as in the two German countries, we expect a high degree of class formation, since the educational systems of these countries are highly standardized, stratified and differentiated so that educational titles are important for placing people in positions. Intra-generational mobility is low and educational credentials work as entry tickets to privileged positions.

In the USA, educational titles are extremely unimportant since the degree of standardization, stratification and differentiation is lowest here. Russia and Britain take a middle position, but for different reasons: the British educational system has a middle position in all four dimensions, while in Russia a high degree of standardization and a middle degree of horizontal differentiation go hand in hand with a low degree of horizontal differentiation and stratification.

20. Since educational titles have advantages only in (closed) occupational positions, the incumbents of these positions are supposed to be involved in collective social action. Therefore, we expect that class position will also influence attitudes and actions. In other words: credentialism enhances class formation.

21. See Groß (1998) for the examination of this hypothesis in terms of patterns of intra-generational mobility.

22. The mobility chances of most people who worked in the eastern part of Germany at the time the survey was conducted (1996) were conditioned by the educational system in the GDR. We therefore have to look at East and West Germany separately.

23. One important factor that has to be disregarded is the dynamic character of educational systems. The degrees of standardization, differentiation and stratification can change over time, especially in the former communist countries, where reforms have started since 1989 and 1991. Only a cohort analysis would provide the necessary evaluation of changes in educational systems with respect to intra-generational mobility. Our data do not provide for this kind of analysis. The following analyses assume that countries' educational systems can be distinguished clearly enough in spite of changes that have taken place over time and that were, in some cases, extensive. With respect to the events of 1989 and 1991 in the former communist countries, one should bear in mind that changes in the educational system take a long time to affect the labour market.

24. The ranking of the educational systems on the four dimensions is reasoned in more detail in Groß (1998: 176–204).

TABLE 1. Educational systems and credentialism: hypotheses

Country	Standardization	Stratification	Vertical differentiation	Horizontal differentiation	Degree of credentialism
Hungary	+	0	+	+	+
West Germany	+	0	+	+	+
East Germany	+	+	0	+	+
Russia	+	–	–	0	0
United Kingdom	0	0	0	0	0
United States	–	–	–	–	–

Table 1 summarizes each country's results in all four dimensions. In it + stands for 'highly pronounced', – stands for 'weakly pronounced' and 0 stands for a medium position. The last column combines the findings, giving the degree of credentialism that should follow from the countries' educational systems.

In the following sections, these hypotheses will be examined on the basis of ISJP (1991, 1996) data sets.

6 Data

One of the greatest difficulties in dealing with international comparative studies is the comparability of the data sets. Usually, the data in one country are obtained independently from other countries' data. This can lead to marked differences in selection procedures and operationalization. The following data are taken from the International Social Justice Project (ISJP).²⁵ From the very beginning, one of the most important issues was to ensure that each country's survey was conceived and conducted in a comparable manner. Both the wording of the questions and the order of the items in the questionnaire were to be as similar as possible. A common master questionnaire was issued in English and used as a blueprint for each individual country's translation. In most countries, the questionnaire was translated back into English to ensure that only unavoidable, untranslatable idioms departed from the original.

Another essential working principle of the ISJP consisted in trying to ensure that each country's survey was representative. All samples were based on a random selection. The selection was based on voting registers, residents' registration lists or postal registers. Apart from the US, where

25. Cf. Kluegel *et al.* (1995); Alwin and Wegener (1995); Alwin *et al.* (1993); Christoph *et al.* (1998).

telephone interviews were conducted with the aid of the random digit dialling method, all samples considered here are based on face-to-face interviews conducted by experts.

All six countries examined here were participants in the first wave of surveys, which took place in 1991. In Germany (East and West), Russia and Hungary, replications were conducted in 1996. In these countries, comparisons over time can be made. In the following analysis, we use information only from those people who were, at the time of the interview, employed full-time. Concerning the process of placing people in positions, it seems reasonable to assume that educational titles are only important for employees. In the case of self-employed workers, the possession of economic capital should be of much greater importance. Thus, the self-employed have been dropped from the analyses.

7 Variables

The dependent variable is the interviewee's self-assessment on a ten-point scale of social standing:

In [country] today, some people are considered to have a high social standing and some are considered to have a low social standing. Thinking about yourself, where would you place yourself on this scale if the top box indicated high social standing in this country and the bottom box indicated low social standing?

The value 10 corresponds to the top box ('high social standing'), the value 1 corresponds to the bottom box ('low social standing').

The independent variables are, first of all, class and education. The influence of these variables on subjective social status is at the focus of our attention. Other items, used as covariates, are the interviewee's age and gender and the size and the economic sector of the company he or she works in.

The *class model* used here is founded on 'berufliche Stellung', which the ISJP is the first to have obtained in an internationally comparative way. It distinguishes four classes. According to their qualification and to their position in a hierarchy of supervision, white-collar workers are assigned to the 'upper service class' or to the 'lower service class'. Blue-collar workers are assigned to the 'upper manual class' and to the 'lower manual class', respectively.²⁶

26. For a complete classification and a detailed coding concept, see Groß (1998: 207). There is a high congruence between these class categories and the EGP scheme that is usually used in international comparisons (e.g. Erikson and Goldthorpe 1992; Müller *et al.* 1990).

TABLE 2. Distribution of categorical variables

	FRG-West 1991	FRG-West 1996	UK 1991	USA 1991	Russ. 1991	Russ. 1996	FRG-East 1991	FRG-East 1996	Hun. 1991	Hun. 1996
<i>Gender</i>										
Men	74.8	64.2	61.9	50.9	52.1	51.9	53.3	56.3	51.9	52.8
Women	25.2	35.8	38.1	49.1	47.9	48.1	46.7	43.7	48.1	47.2
N	559	327	422	666	1026	649	398	371	424	324
<i>Economic sector</i>										
Public	31.7	25.4	27.3	29.4	51.8	56.6	44.6	32.4	17.0	46.3
Private	68.3	74.6	71.0	70.6	4.9	32.2	55.4	67.6	42.5	35.1
Nationalized industry	-	-	1.7	-	43.3	11.2	-	-	40.5	18.6
N	546	323	417	666	1003	643	388	364	412	285
<i>Size of organization</i>										
<300	61.2	74.1	74.5	76.2	71.6	74.8	77.7	89.2	91.0	81.6
>300	38.8	25.9	25.5	23.8	28.4	25.2	22.3	10.8	9.0	18.4
N	466	313	411	650	1007	465	341	342	420	305
<i>Class</i>										
Upper service class	24.0	22.6	41.7	38.3	41.9	33.9	24.6	18.1	29.0	25.9
Lower service class	45.3	45.3	22.8	38.1	17.4	25.0	41.2	45.8	10.6	15.4
Upper manual class	22.5	22.9	15.9	7.4	27.7	25.9	28.6	31.3	34.9	34.6
Lower manual class	8.2	9.2	19.7	16.2	13.1	15.2	5.5	4.9	25.5	24.1
N	559	327	422	666	1026	649	398	371	424	324

TABLE 3. Distribution of continuous variables

	FRG-West 1991	FRG-West 1996	UK 1991	USA 1991	Russ. 1991	Russ. 1996	FRG-East 1991	FRG-East 1996	Hun. 1991	Hun. 1996
Age	39.2 ^a 10.9 ^b 559 ^c	38.5 11.3 327	36.4 12.1 422	38.6 11.1 666	39.1 11.4 1026	40.7 10.9 649	38.9 10.6 398	39.4 10.2 371	38.5 10.2 424	39.1 10.3 324
Education	4.2 ^a 1.5 ^b 559 ^c	4.1 1.3 327	4.3 1.8 422	4.9 1.2 666	5.4 1.4 1026	5.3 1.3 649	4.3 1.2 398	4.4 1.2 371	4.2 1.6 424	4.0 1.5 324
Subjective social status	5.9 ^a 1.4 ^b 547 ^c	6.2 1.4 323	5.6 1.5 408	5.8 1.6 654	4.1 1.8 868	4.3 2.0 604	5.1 1.4 391	5.7 1.5 368	4.6 1.5 421	4.3 1.4 320

a mean; b standard deviation; c N

The education variable is based on the CASMIN classification. In the ISJP, seven educational levels are distinguished. Levels 1 to 3 correspond to the CASMIN categories 1a to 1c; level 4 corresponds to CASMIN 2a and 2b; levels 5 to 7 correspond to CASMIN 3a to 3c. The following analyses take for granted a hierarchical order of these categories from 1 to 7 and use them as a quasi-metrical scale in regression analysis.²⁷

Gender is coded as 1 for men and 0 for women; age is measured in decades; the company size is used as a dummy variable that distinguishes between large firms (300 or more workers = 1) and all other firms. The economic sector distinguishes between the public (= 1) and the private sector. See Tables 2 and 3 for the distributions of all variables.²⁸

8 Results

The hypotheses stated above were tested with regression models. These tests are documented below in four steps: 8.1 analyses the influence of the educational variable on subjective social status; 8.2 looks at the influence of class position; 8.3 checks the results, controlling the covariates. While the computations of these three sections are specific to each country, 8.4 includes all countries in one model assessing the effect of education. The interaction effects that can be computed in this model make it possible to test whether or not the influence of education differs significantly between the countries.

8.1 The influence of education on subjective social status

Table 4 summarizes the results of the bivariate regression of subjective social status on education. Looking at the 1991 results, we indeed find, as was expected, a much higher influence of education in West Germany than in the US. While, in the former country, 12.6 per cent of variance in subjective social status is explained exclusively by education, the corresponding figure in the US is negligible, at 2.5 per cent. The coefficients, too, confirm this picture: the fact that higher education leads to a higher

27. In order to verify the results obtained by this categorization, a different, metrical version of the education variable was used. It is based on the estimated average time that is needed in order to obtain a diploma in that particular category. Results were more or less identical to the initial ones. The same goes for a third, four-level categorical, education variable that was used for verification.

28. In order not to lose too many cases through missing values, non-responses to questions of economic sector and company size were replaced by dummy variables as well. Since the coefficients of these dummies are meaningless, they are not included in the tables.

TABLE 4. The impact of education on subjective social status

	<i>FRG-West</i> <i>1991</i>	<i>FRG-West</i> <i>1996</i>	<i>UK</i> <i>1991</i>	<i>USA</i> <i>1991</i>	<i>Russ.</i> <i>1991</i>	<i>Russ.</i> <i>1996</i>	<i>FRG-East</i> <i>1991</i>	<i>FRG-East</i> <i>1996</i>	<i>Hun.</i> <i>1991</i>	<i>Hun.</i> <i>1996</i>
Education	0.35** (8.96)	0.32** (5.83)	0.15** (3.68)	0.21** (4.22)	0.20** (4.69)	0.14* (2.25)	0.19** (3.61)	0.32** (5.12)	0.32** (7.68)	0.44** (10.36)
Adj. R ²	0.126	0.092	0.030	0.025	0.023	0.006	0.030	0.064	0.121	0.250
N	547	323	408	654	868	604	391	368	421	320

* p < 0.05

** p < 0.01

subjective social status is more pronounced in West Germany (0.35) than in the US (0.21). Regarding the former communist countries, we find the expected contrast when comparing Russia and Hungary. The influence of education in Russia (0.20 with an R^2 of 0.023) is comparable that in the US, while our results for Hungary are nearly identical to those for West Germany: an explained variance of 12.1 per cent and a coefficient of 0.32. However, our hypothesis that the UK should be somewhere in the middle, while East Germany should be close to West Germany and to Hungary, has to be rejected: the influence of education in Britain is even lower than in the US, while in East Germany it is far lower than in Hungary or West Germany, being just above the influence found in Russia.

Now, looking at the 1996 replication data, the influence of education in West Germany, though lower than five years previously, is still far above that in the other capitalist countries. In Russia, the influence of education has all but disappeared, with a variance explanation of under 1 per cent and a coefficient that is hardly significant at all. In the eastern part of Germany, however, the coefficient has risen to the western German level (0.32), even though its explained variance (6.4 per cent) is still far below that of its western counterpart. In Hungary, too, education has become far more important in explaining status self-assessment, the variation explained climbing to an astonishing 25 per cent.

These results allow two main conclusions to be made regarding our preliminary hypotheses.

For one, the nuances of credentialism we expected – very low in the US, medium in the UK and in Russia, very high in the other countries – cannot be identified. Instead, there are only two clear-cut groups: West Germany and Hungary as credentialist countries and Russia, the US and the UK as non-credentialist countries. In East Germany, a big change has occurred between the results of 1991 and those of 1996. It appears, then, that in order for educational titles to be decisive factors in raising the individuals' subjective status, educational systems need to be strongly pronounced in all four dimensions. They need to be at the same time highly stratified, standardized and differentiated.

Second, our Eastern European findings suggest that there is a strong interplay between the different components of a country's institutional settings with regard to their effect on subjective perceptions. Of the three former communist countries, the two countries whose educational systems seemed likely to cause their educational titles to have a strong impact on subjective status, Hungary and East Germany, both with stratified, differentiated and standardized systems, saw that influence rise between 1991 and 1996, whereas it actually fell in Russia during that same time period, from an already very low level. In East Germany, the structure of the educational system did not have the expected impact on

perceived social inequality in 1991. This might have been because the egalitarian conditions of Communism made different opportunities for access to social statuses based on diplomas irrelevant in the perception of social inequality. It might also have come about through the particular situation that the country experienced in that period. At any rate, the structure of East Germany's educational system started showing the anticipated effects only under a market economy. Similar results are found for Hungary: although education did already have a strong effect in 1991, that effect has apparently been heightened after the upheavals that took place. Thus, we have found some hints that the economic system has a considerable impact on the structuring of attitudes – not surprisingly.

But we cannot conclude that it is solely the economic system that is responsible for the structuring of attitudes. At each point in time, we find marked differences in the way attitudes are structured, both within capitalist and within former communist countries. These differences can be explained by our theory outlined above, concentrating on the characteristics of the countries' educational systems. It seems that the change in the economic systems has merely enhanced the differences in perception that were to be expected from the countries' educational systems.

8.2 The influence of class position

Table 5 gives us the results of the bivariate regressions of subjective social status on class position.²⁹

As in the previous analysis, there is a stark contrast between West Germany and the US and between Hungary and Russia. Fifteen per cent of the variance of subjective social status is explained by class position in West Germany, whereas that figure, at 2.2 per cent, is negligible in the US. The difference between Hungary and Russia (12.8 per cent vs. 2.1 per cent) is very much the same. As in the previous analysis, East Germany is very close to Russia; the UK, however, differs strongly from its earlier results: with an explained variance of 7.5 per cent, it is really in a medium position.

The reduction in the influence of education on subjective social status between 1991 and 1996 in West Germany is matched by a decline in the influence of class position (though it still remains at the top of all capitalist countries). In all the former communist countries, including Russia, a clear increase in the explanatory power of class position has taken place in that time period. Hungary is the clear 'leader' (nearly 20 per cent of

29. Since the class position had to be operationalized with three dummy variables, the coefficients cannot easily be compared. We therefore confine the discussion to the proportion of variance explained.

TABLE 5. The impact of class on subjective social status

	FRG-West 1991	FRG-West 1996	UK 1991	USA 1991	Russ. 1991	Russ. 1996	FRG-East 1991	FRG-East 1996	Hun. 1991	Hun. 1996
Upper service class ^a	1.33** (8.08)	0.96** (4.44)	0.25 (1.20)	0.35 (1.49)	0.37* (2.57)	0.36 (1.79)	0.71** (3.84)	1.05** (4.86)	1.08** (6.51)	0.98** (5.57)
Lower service class	0.59** (4.09)	0.66* (3.53)	-0.51* (-2.19)	-0.04 (-0.19)	0.22 (1.20)	-0.08 (-0.36)	0.16 (1.03)	0.48** (2.86)	0.39 (1.72)	0.72** (3.49)
Lower manual class	- -0.64** (-2.79)	-0.52 (-1.82)	-0.81** (-3.33)	-0.33 (-1.26)	-0.50* (-2.42)	-1.02** (-4.13)	-0.08 (-0.27)	-0.68 (-1.92)	-0.23 (-1.39)	-0.63** (-3.50)
R ²	0.155	0.103	0.075	0.022	0.021	0.050	0.035	0.080	0.128	0.199
N	547	323	408	654	868	604	391	368	421	320

a reference category: upper manual class

* p < 0.05

** p < 0.01

variance explained), followed by east Germany (8 per cent). In Russia, class position is just starting to have some bearing on subjective social status; however, with a 5 per cent explained variance, it is still fairly restricted.

The results show that class-based and education-based structuring of attitudes do not follow the exact same pattern. In Britain, for instance, though education has hardly any bearing on subjective social status, the influence of class position is quite remarkable. The same goes for Russia. It seems, then, that differences in class position between employees cannot be traced back entirely to differences in the structure of educational systems.

This is not what we had expected in any case. But the variance in subjective social status based on education and that based on class do show a strong parallelism: the influence of class is particularly pronounced where educational titles are of great significance on their own, too. In the US, which we had declared to be non-credentialist, class has very little impact. The rise in the importance of education in the former communist countries was accompanied by a rise in the influence of class, too, whereas in Germany the exact opposite took place. All of this gives rise to the assumption that class position becomes important when educational titles are used as credentials, and this seems to be a function of the structure of the educational systems. All in all, we see our hypothesis confirmed: processes of class formation depend on the institutional settings of a society, and the educational system in particular plays an important role in that process.

8.3 Control of covariates

Tables 6 and 7 include the covariates in the analysis of the influence of education and class on subjective social status. They show that these covariates play hardly any role at all. There do not seem to be any systematic variations between countries in the patterns of influence of the covariates either.

The most important finding, however, is that the effects of class and education stay stable. With only one exception, the changes in the coefficients of education and of class position are not even worth mentioning. That one exception is Britain. The difference in subjective status between the lower service class and qualified workers ceases to be significant after the covariates are controlled for. This is probably due to the high proportion of British women in that class who perceive their status to be lower than that of men. Nevertheless, class position remains much more effective in explaining subjective social status in Britain than

TABLE 6. The impact of education on subjective social status controlling for covariates

	FRG-West 1991	FRG-West 1996	UK 1991	USA 1991	Russ. 1991	Russ. 1996	FRG-East 1991	FRG-East 1996	Hun. 1991	Hun. 1996
Men	-0.11 (-0.83)	-0.03 (-0.23)	0.47** (3.06)	-0.01 (-0.13)	0.21 (1.79)	-0.09 (-0.56)	-0.19 (-1.38)	-0.00 (-0.02)	-0.13 (-1.02)	-0.08 (-0.60)
Age	0.02 (0.49)	0.23** (3.39)	0.06 (0.98)	0.12* (2.26)	0.01 (0.30)	0.05 (0.74)	0.17** (2.81)	0.03 (0.44)	0.05 (0.77)	-0.01 (-0.23)
Public sector ^a	0.00 (0.02)	-0.00 (-0.03)	0.15 (0.88)	0.14 (1.03)	-0.26 (-0.94)	-0.26 (-1.44)	-0.03 (-0.21)	0.29 (1.68)	-0.16 (-0.84)	-0.06 (-0.37)
Nationalized industry ^a	-	-	0.39 (0.69)	-	-0.39 (-1.39)	-0.63* (-2.22)	-	-	-0.30* (-2.00)	-0.34 (-1.68)
Large firms ^a	0.07 (0.59)	-0.19 (-1.11)	-0.05 (-0.30)	0.17 (1.20)	0.04 (0.30)	0.13 (0.61)	-0.09 (-0.55)	0.01 (0.04)	-0.12 (-0.50)	0.09 (0.52)
Education	0.34** (8.53)	0.31** (5.51)	0.14** (3.42)	0.19** (3.87)	0.20** (4.54)	0.14* (2.22)	0.18** (3.27)	0.28** (4.22)	0.31** (7.10)	0.44** (9.61)
R ²	0.119	0.121	0.042	0.031	0.023	0.005	0.062	0.060	0.125	0.243
N	547	323	408	654	868	604	391	368	421	320

a missing values are controlled for

* p < 0.05

** p < 0.01

TABLE 7. The impact of class on subjective social status controlling for covariates

	FRG-West 1991	FRG-West 1996	UK 1991	USA 1991	Russ. 1991	Russ. 1996	FRG-East 1991	FRG-East 1996	Hun. 1991	Hun. 1996
Men	-0.11 (-0.79)	0.16 (0.95)	0.53** (3.25)	0.06 (0.53)	0.25 (1.93)	-0.16 (-0.94)	-0.14* (-1.01)	0.18 (1.07)	0.11 (0.81)	-0.12 (-0.82)
Age	-0.05 (-0.92)	0.21** (3.07)	0.00 (0.00)	0.10 (1.92)	-0.01 (-0.30)	0.03 (0.47)	0.14* (2.20)	0.01 (0.25)	-0.01 (-0.25)	0.01 (0.25)
Public sector ^a	-0.04 (-0.34)	-0.00 (-0.05)	0.11 (0.62)	0.14 (1.01)	-0.32 (-1.18)	-0.32 (-1.81)	-0.12 (-0.80)	0.33 (1.91)	-0.21 (-1.10)	-0.07 (-0.41)
Nationalized industry ^a	-	-	0.53 (0.94)	-	-0.40 (-1.42)	-0.66* (-2.39)	-	-	-0.33* (-2.24)	-0.37 (-1.74)
Large firms ^a	0.08 (0.62)	-0.14 (-0.84)	-0.04 (-0.28)	0.16 (1.16)	0.02 (0.21)	0.17 (0.81)	-0.12 (-0.67)	0.02 (0.11)	-0.10 (-0.45)	0.14 (0.76)
Upper service class ^b	1.35** (7.73)	0.91** (3.94)	0.33 (1.50)	0.31 (1.28)	0.45** (2.86)	0.36 (1.61)	0.57** (2.76)	0.96** (4.03)	1.06** (6.08)	0.94** (4.90)
Lower service class	0.56** (3.61)	0.73** (3.45)	-0.25 (-0.98)	-0.02 (-0.11)	0.32 (1.63)	-0.17 (-0.69)	0.09 (0.52)	0.46* (2.27)	0.42 (1.76)	0.68** (3.03)
Lower manual class	-	-0.54 (-1.90)	-	-0.31 (-1.18)	-0.40 (-1.86)	-	-0.12 (-0.41)	-0.79* (-2.17)	-0.19 (-1.10)	-
R ²	0.150	0.128	0.086	0.025	0.021	0.052	0.057	0.082	0.132	0.193
N	547	323	408	654	868	604	391	368	421	320

a missing values are controlled for; b reference category: upper manual class; * p < 0.05; ** p < 0.01

all the covariates put together, as one can tell from the low gain in the proportion of variance explained after including the covariates in the model.

8.4 The expanded model

Finally, Table 8 shows the results of a regression that calculates the influence of education on subjective social status for all the countries at once. Using interaction effects, a test can show whether differences in the coefficients of education are significant between the countries. The UK, having the weakest effect of education, is used as the reference group.

This model confirms the impression that was conveyed in the more descriptive comparisons of education coefficients. The influence of education on subjective social status in the US and in Russia is no different from that in the UK. It is significantly stronger in West Germany and in Hungary than in the UK, and it becomes significantly different in East Germany only in 1996. Thus we can indeed distinguish two groups of countries: East and West Germany and Hungary as credentialist and Russia, the UK and the US as non-credentialist.

9 Discussion

Our results seem strongly to confirm the central hypothesis of the present study: that the impact of educational titles on social standing and on the perception of one's own social standing depend on the structure of the educational system. In those countries that have a highly standardized, stratified and differentiated education system, education explains subjective social status to a high degree. At the same time, class position in those countries is also an important factor in explaining attitudes. Credentialism and class formation go hand in hand.

On the other hand, the study also showed that educational systems are not the only factor determining the structuring of attitudes. In the UK, for instance, there seems to be little credentialism, though class formation is rather pronounced. In the former communist countries, credentialism makes itself felt particularly after the changes of 1989/91 – this shows that a country's economic system also plays an important role in class formation. We believe, however, that it is clear that the economic system is not, as has generally been assumed in the past, the only criterion determining the structuring of attitudes. Both among the capitalist countries and among the former communist countries, there are major differences in the structuring of attitudes, differences that cannot be

TABLE 8. The expanded model

	<i>Model 1</i>	<i>Model 2</i>
USA 1991 ^a	0.09 (0.93)	-0.12 (-0.38)
Russia 1991	-1.71** (-16.70)	-1.83** (-6.16)
Russia 1996	-1.52** (-14.61)	-1.36** (-4.07)
Germany East 1991	-0.53** (-4.86)	-0.72* (-2.09)
Germany East 1996	0.04 (0.44)	-0.69 (-1.85)
Germany West 1991	0.29** (2.92)	-0.53 (-1.90)
Germany West 1996	0.67** (5.84)	-0.03 (-0.08)
Hungary 1991	-0.87** (-7.78)	-1.53** (-5.18)
Hungary 1996	-1.17** (-9.93)	-2.35** (-7.52)
Age	0.07** (3.66)	0.06** (3.35)
Men	0.01 (0.43)	0.01 (0.41)
Public sector ^b	0.01 (0.31)	0.00 (0.08)
Nationalized industry ^b	-0.19* (-2.37)	-0.21* (-2.53)
Large firms ^b	0.02 (0.41)	0.03 (0.54)
Education	0.25** (15.61)	0.15** (3.67)
<i>Interaction of education and</i>		
USA 1991		0.05 (0.85)
Russia 1991		0.04 (0.78)
Russia 1996		-0.01 (-0.16)
Germany East 1991		0.04 (0.57)
Germany East 1996		0.17* (2.10)
Germany West 1991		0.19** (3.19)
Germany West 1996		0.16* (2.15)
Hungary 1991		0.15* (2.45)
Hungary 1996		0.28** (4.08)
Adj. R ²	0.229	0.233
N	4904	4904

a reference: UK; b missing values are controlled for; * p < 0.05; ** p < 0.01

explained without reverting to the institutional settings of their societies. The change in the economic systems seems only to have set off the differences that were inherent in the institutional settings to begin with.

In sum, we can state that 'class formation' (or 'individualization') is not a universal characteristic of modern industrial (or 'post-industrial') societies. Rather, we have to investigate what influence the institutional settings of a given society have on the degree of class formation.

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