

No way back up from ratcheting down? A critique of the 'microclass' approach to the analysis of social mobility

Acta Sociologica
55(3) 211–229

© The Author(s) 2012

Reprints and permissions:

sagepub.co.uk/journalsPermissions.nav

DOI: 10.1177/0001699312447633

asj.sagepub.com



Robert Erikson

Swedish Institute for Social Research, Sweden

John H. Goldthorpe

Nuffield College, Oxford, UK

Martin Hällsten

Swedish Institute for Social Research, Sweden

Abstract

'Microclasses', detailed occupational groups, have recently been suggested as being the basis of research in social stratification; occupations represent 'real' social groups in contrast to the purely 'nominal' categories of either 'big class' schemata or socio-economic status scales. The microclass approach in social mobility research has been applied in a recent paper, the authors claiming to show that a strong propensity exists for intergenerational occupational inheritance, and that such inheritance is the dominant factor in social reproduction and limits equality of opportunity. We model a larger version of the same Swedish dataset as used by these authors. We show: (i) that while with many occupational groups a marked degree of intergenerational inheritance occurs among men, such inheritance is far less apparent among women, and, for both men and women, accounts for less than half of the total association in the occupational mobility table; (ii) that the microclass approach does not deal in a theoretically consistent way with the remaining associational underlying patterns of occupational mobility, since appeal is made to the theoretically alien idea of 'socio-economic closeness'; and (iii) that a standard class approach, modified to account for occupational inheritance, can provide a more integrated understanding of patterns of immobility and mobility alike. We also give reasons for doubting whether it will prove possible to establish a theoretically consistent microclass approach to explaining intergenerational mobility propensities. Finally, on the basis of our empirical results

Corresponding Author:

Robert Erikson, Swedish Institute for Social Research, Stockholm 10691, Sweden

Email: robert.erikson@sofi.su.se

and of the relevant philosophical literature, we argue that the microclass approach is unlikely to be helpful in addressing normative questions of equality of opportunity.

Keywords

equality of opportunity, intergenerational mobility, microclass, social class, Sweden

Introduction

Over the past decade, David Grusky, together with a number of associates, has argued that if claims of the ‘death of class’ (e.g. Kingston, 2000; Pakulski and Waters, 1996) are to be effectively resisted, a radical reorientation of class analysis is required (Grusky and Galescu, 2005a, b; Grusky et al., 2000; Grusky and Sørensen, 1998; Grusky and Weeden, 2001, 2002). The ‘big class’ concepts that are typically applied, whether from a neo-Marxist or a neo-Weberian standpoint, have to be recognized as having, at least in modern societies, no more than ‘nominal’ significance. They relate simply to aggregates of individuals allocated to one or other class category according to criteria that are imposed by the analyst rather than mapping out actual socio-cultural entities recognized by and meaningful to their members. ‘Big classes’ therefore provide an inadequate basis for understanding and demonstrating the extent of class-based attitudes and behaviour and forms of collective action. In order for class analysts to overcome this problem and to move towards more ‘realist’ concepts of class, the level of analysis needs to be ‘ratcheted down’ to that of detailed occupational groups occupying specific niches within the division of labour and understood, from a neo-Durkheimian standpoint, as ‘microclasses’. It is only at this level that individuals are brought together at ‘the site of production’, through processes of selection (including self-selection) and socialization, into collectivities with which they can identify and which create among them a sense of a shared way of life and shared interests.

The microclass initiative has already attracted some amount of sceptical commentary relating to theoretical and empirical issues that arise at a rather general level (Birkelund, 2002; Brooks and Svallfors, 2010; Goldthorpe, 2002, 2007: vol. 2, ch. 6). In the present article we investigate the suitability of the microclass approach for the analysis of intergenerational social mobility. We do this in relation to, and as a critique of, a recent paper (2009) by Jonsson et al. (henceforth JGDPB). As this attempt of theirs follows on from the previous work of Grusky and his associates in a highly consistent way, the analysis we present here necessarily carries wider implications for the microclass approach.

Two rival approaches have for long been established in the field of social mobility research: the ‘gradational’ approach that sees mobility as occurring within a continuous social hierarchy, typically, one of socio-economic status; and the ‘class’ approach that sees mobility as occurring within a discontinuous class structure, with class positions being defined in terms of relations within labour markets and production units. JGDPB question whether these two approaches, even if taken together, can provide an adequate basis for capturing the full extent of the ‘rigidities’ that exist within the mobility regimes of modern societies, or thus for revealing the full extent of inequalities of opportunity. What is overlooked, they maintain, is that it is only at the occupational, or microclass, level that certain mechanisms operate that are crucial to processes of ‘social reproduction’: in particular, the intergenerational transmission of ‘occupation-specific’ human, cultural and social capital and various more institutionalized forms of ‘social closure’. In the gradational approach these mechanisms are left out of account because of the assumption that children have ‘generic access’ to all occupations of similar ranking in the socio-economic hierarchy; and in the class approach, because of the assumption that it is class-linked, rather than occupation-linked, resources and opportunities that predominantly determine mobility chances.

JGDPB then propose, and aim to implement, a new programme for social mobility research based on microclass analysis. We recognize that in this way they are able to add to our knowledge of how occupation-specific processes contribute to intergenerational class immobility. However, while sharing

Table 1. The EGP class schema, eight-category version

Class	Brief description	Hierarchical division
I	Professionals and managers, higher grade	1
II	Professionals and managers, lower grade	2
III	Routine non-manual employees	3
IVab	Small proprietors and self-employed workers	3
IVc	Farmers	4
V+VI	Technicians and supervisors, skilled manual workers	4
VIIa	Semi- and unskilled manual workers	5
VIIb	Agricultural workers	5

their reservations about the gradational approach, we doubt that their new programme is capable of actually competing with, and perhaps substituting for, the standard class approach. We use a compilation of census data for Sweden in order to scrutinize empirically the application of the microclass approach to the analysis of social mobility in this country – one of the few, we argue, for which datasets can be formed of sufficient size to allow for individuals to be coded to detailed occupational groups as well as to ‘big classes’. The results of our analyses bring out a number of different problems. While a tendency for occupational immobility does show up as between sons and their fathers, this is far less the case as between daughters and their fathers – or as between daughters and their mothers – and even in the case of sons and fathers the tendency for immobility is variable across occupations. Furthermore, this variation is clearly related to father’s class, and as regards individuals’ occupational attainment overall, whether entailing immobility or mobility, this proves to be structured far more by father’s social class than by father’s occupation within a given class. A further focus of our critique is in fact on the failure of exponents of the microclass approach to treat immobility and mobility in a theoretically consistent way. We show how, with our Swedish occupational mobility tables at least, JGDPB would have done better by modelling occupational immobility in conjunction with a model of both immobility and mobility deriving from the class approach than through the hybrid microclass and gradational model that they actually apply, although in neither case are the data of these ‘ratcheted-down’ tables adequately reproduced – a goal which, we argue, microclass analysts are, in principle, unlikely to achieve. Finally, we question certain aspects of the position, deriving from the microclass approach, that JGDPB take up on normative questions of inequality of opportunity (cf. also Jonsson et al., 2011).

Data

The dataset we use for our analyses of mobility is based on the Swedish censuses of 1960, 1970 and 1990. Our data for children come from the 1990 census and are restricted to men and women born between 1943 and 1960, i.e. aged 30 to 47 in 1990. Our data for the fathers of these individuals, by reference to whom their social origins are determined, come from the 1960 and 1970 censuses, with priority being given to the latest information available. Children and fathers are linked through a multigenerational register based on birth records.¹

We code children and their fathers to an eight-category version of the EGP class schema, as shown in Table 1, on the basis of the Nordic classification of occupations, NYK80, a variant of the ISCO 1958 classification. We also use this classification in essentially the same way as JGDPB in order to allocate children and their fathers to occupational groups. However, in quite a number of cases the occupational groups cut across EGP classes, which creates a problem for us in that we want these groups to be perfectly nested within our eight classes. In cases where there were sufficient numbers, we have simply divided the problematic groups so that different sets of their component occupations are included in different classes. In cases where numbers were too small to make this procedure practicable, we have

maintained the occupational groups intact and have allocated them to the EGP class appropriate to the majority of their component occupations. In addition, we have modified – that is, slightly extended – the JGDPB occupational groups so as to give greater differentiation in the case of the self-employed. We have created three new groups in order to distinguish, as well as proprietors, self-employed workers in skilled, semi-skilled and unskilled occupations, respectively.

In all, then, we have 108 occupational groups. Our basic data arrays thus take the form of 108×108 occupational mobility tables for men and for women, each of which is overlaid by an 8×8 class mobility table (for full details on the occupational classification, see Table A1 in Erikson et al. (2012)). As regards the former tables, we have, respectively, average counts of 70 and 66, which suggests that low cell frequencies will not raise problems in our case (cf. note 1).

Modelling

The basic log-linear model with which JGDPB work in their comparative analyses is one intended to represent, simultaneously, gradational (i.e. socio-economic), class and specifically occupational effects in producing association within the detailed 82×82 occupational mobility tables that they construct. The model is written as:

$$m_{ij} = \alpha \beta_i \gamma_j \phi_{ij}^{uu} \delta_{ij}^A \delta_{ij}^B \delta_{ij}^C \delta_{ij}^M$$

where i indexes origins, j indexes destinations, m_{ij} refers to the expected value in the ij th cell, α refers to the main effect, the β_i and γ_j terms refer to row and column marginal effects, the ϕ_{ij}^{uu} term refers to the effect of some socio-economic scale, and the four δ terms refer to the immobility effects of the four levels of ‘class’ that JGDPB distinguish, i.e. non-manual/manual, macro-class, meso-class and microclass – *sc.* occupational group.

In analysing our 108×108 occupational mobility tables for Sweden in order to provide the empirical basis of our critique of JGDPB, we likewise apply log-linear models which in all cases include the same main and marginal effects as in JGDPB’s model. Our models can indeed be regarded as essentially variants of theirs in that we are also concerned, in differing ways, with gradational, class and occupational effects.

Results – I

The main results of our analyses are presented in Table 2. In this section of the article, we discuss the results reported for Models 1 to 4. In the next section, we turn to the results for Models 5 to 7, which treat class effects on both immobility and mobility via a version of the ‘core model’ of social fluidity based on the EGP schema.

Model 1 in Table 2 is the independence model that postulates no association between child’s and father’s occupational group. We can therefore take the likelihood ratio (G^2) returned under this model as representing the total association existing between child’s and father’s occupational group, and we are then interested in how far subsequent models can account for this association. We are also interested in how far these models reduce the dissimilarity index (DI) for the independence model – i.e. the percentage of all cases misclassified – and in changes in the BIC statistic.²

Model 2 in Table 2 is the quasi-independence model that postulates no association between child’s and father’s occupational group except in the 108 cells on the main diagonal of the mobility table, i.e. cells implying intergenerational immobility. These cells are fitted exactly, and thus via this model we give the fullest possible expression to JGDPB’s δ_{ij}^M term. In the case of men, it can be seen that, for the loss of 108 degrees of freedom, a substantial reduction in G^2 is achieved: immobility, or occupational inheritance, can be taken as accounting for about 44 per cent of the total association in the 108×108 table. At the same time, the DI falls from 19.4 for the independence model to 15.2. However, in the case

Table 2. Models of association in the 108 × 108 occupational mobility table, Swedish men

Model	Males ^b					Females ^c				
	G ²	d.f.	DI	Reduction in G ² (%)	BIC	G ²	d.f.	DI	Reduction in G ² (%)	BIC
I										
1. Independence	293,553	11,449	19.4	–	137,623	120,288	11,449	13.2	–	–34,957
2. Quasi-independence, occupational immobility	164,559	11,341	15.2	43.9	10,099	103,334	11,341	12.4	14.1	–50,447
3. 2 + class immobility	138,947	11,333	13.9	52.7	–15,404	85,950	11,333	11.2	28.5	–67,723
4. 3 + ISEI association	102,773	11,332	11.7	65.0	–51,564	63,577	11,332	10.0	47.1	–90,082
II										
5. 1 + core model of social fluidity	147,058	11,437	14.1	49.9	–8,709	64,543	11,437	9.7	46.3	–90,540
6. 2 + core model of social fluidity ^a	98,188	11,330	11.6	66.7	–56,121	57,361	11,330	9.4	52.3	–96,271
7. 6 + ISEI association effect	91,417	11,329	11.2	68.9	–63,407	54,065	11,329	9.1	55.1	–99,554

Note: ^aAs modified, see text. ^bN = 822,048. ^cN = 774,336.

of women, the outcome is very different. The reduction in G^2 is only around 14 per cent and the fall in the DI is almost negligible.

These findings then have clearly divergent implications for JGDPB's arguments. One of their central claims is that a strong propensity for occupational inheritance means that much of what shows up as immobility in intergenerational class mobility tables will in fact be driven by occupation-specific rather than by class-wide factors. This claim finds some support in our results for men but very little in our results for women. JGDPB do indeed recognize that their approach is likely to appear less successful in regard to women's mobility than to men's, and they advance two quite different reasons for this (1012–1014). The first is that the extent of occupational sex segregation limits the possibilities for father-to-daughter occupational inheritance. The second is that the datasets so far available that are suitable for microclass analysis rarely contain information on mother's occupations, which, if available, might reveal occupational inheritance between mothers and daughters at a level similar to that between fathers and sons.

In response, we would make two observations. First, occupational sex segregation is simply a feature of modern societies that any effective approach to the analysis of social mobility must be able to accommodate, and in any event the parameters of a log-linear model do in fact relate to the association in a mobility table net of the differences between the marginal distributions – as between those of the occupations of fathers and daughters. Second, whether considering mother-to-daughter mobility tables would be helpful to JGDPB's position is an empirical issue that we can in fact address. In the Swedish case, we do have data on mother's occupation, and in the case of women we can therefore construct a 108×108 mobility table in which the origin variable is mother's occupation in all cases where an occupation is recorded, and father's occupation otherwise. Fitting Model 2, the quasi-independence model, to this table produces results that are in all respects very similar to those reported for the father–daughter table. The reduction achieved in the total G^2 is 14.9 per cent.³ It thus remains the case, for Swedish women at least, that the argument that seeming class immobility will to a substantial degree be driven by occupation-specific effects has little force.

Moreover, following from the foregoing analyses, another claim made by JGDPB (991) can also be called into question: that is, the claim that 'the vast majority of association in a mobility table is generated by simple reproduction', i.e. by immobility. Even with men, where the quasi-independence model accounts for 44 per cent of the total association in the 108×108 table, this still means that more than half has to be accounted for in terms of patterns of *mobility*; and with women this proportion increases to over 85 per cent. The further important point that then arises – and that is pursued at length below – is that the success of a new research programme based on microclass analysis must depend on this association deriving from patterns of mobility being also open to explanation *in a way consistent with the theoretical thinking on occupation-specific processes that underlies the programme*, as set out in Grusky's previous work (see, esp., Grusky and Weeden, 2001, Grusky and Galescu, 2005b).

Finally, it may also be observed here that even if there is what JGDPB call a 'palisade' along the main diagonal of occupational mobility tables, 'protecting occupational positions from intruders' – or in the case of women more 'a dilapidated picket fence' (1013 f.) – much variation still occurs in the height of the individual 'pales', i.e. in the propensity for immobility that exists from one occupational group to another. Indeed, JGDBP do at various points acknowledge, following Grusky and Galescu (2005b), that occupations will in fact differ significantly in the extent to which they are 'real' social groups with an institutional capacity for 'closure'. But they do not then offer any systematic treatment of this differentiation, nor consider its relation to class. In order to take these matters further, we have fitted independence and quasi-independence models to separate occupational mobility tables for men and women *in each class of origin*. This allows us, first, to scrutinize heterogeneity in occupational inheritance across classes, and, second, to separate out the effects on child's occupational attainment of fathers' occupation and social class, respectively.

From the results reported in Table 3, it can be seen that our previous findings regarding the total association in our 108×108 tables that is accounted for by occupational immobility do indeed conceal the

Table 3. Results of fitting independence and quasi-independence models to occupational mobility tables by class of origin

Class of origin	No. occ. ^a	Males				Females							
		Independence		Quasi-independence		Independence		Quasi-independence					
		G ²	d.f.	G ²	d.f.	G ²	d.f.	G ²	d.f.				
						% imm. ^b	N					% imm. ^b	N
I	17	12,636	1,712	7,655	1,695	39	57,176	7,450	1,712	5,757	1,695	23	53,500
II	18	11,332	1,819	7,405	1,801	35	105,604	5,115	1,819	4,229	1,801	17	99,972
III	12	9,382	1,177	7,882	1,165	16	91,688	2,918	1,177	2,689	1,165	8	86,804
IVab	4	11,197	321	6,386	317	43	73,384	1,186	321	1,608	317	15	69,370
IVc	3	5250	214	1,587	211	70	75,148	592.4	214	500	211	16	68,788
V+VI	23	23,703	2,354	8,845	2,331	63	214,547	6,388	2,354	5,504	2,331	14	203,767
VIIa	27	25,305	2,782	14,614	2,755	42	174,803	10,418	2,782	8,840	2,755	15	164,809
VIIb	4	3,381	321	1,882	317	44	29,698	741.6	321	686	317	7	27,326
Sum	108	102,109		56,590		45		35,509		29,813		16	774,336
Sum of G ² s for independence model fitted to eight tables as above				Indep. G ²		% association accounted for				Indep. G ²		% association accounted for	
				102,109		35				35,509		30	
G ² for independence model, 8 × 108 father's class by child's occupation table				191,444		65				84,779		70	
G ² from independence model, full 108 × 108 occupational mobility table				293,553		100				120,288		100	

Note: ^aNumber of occupational groups within origin class. ^bPercentage association accounted for by occupational immobility.

fact that much variation is present within classes of origin. Thus, in the 3×108 occupational mobility table for men originating in Class IVc, that of farmers, as much as 70 per cent of the association lies in the cells indicating occupational immobility;⁴ and in the 23×108 table for men originating in Class V+VI, that of technicians, supervisors and skilled manual workers, 63 per cent of the association lies in such cells. However, in the 12×108 table for men originating in Class III, that of routine non-manual employees, the corresponding figure is as low as 16 per cent. With women, as would be expected, the importance of immobility is generally much less, and a particularly striking and significant contrast with men arises with those of Class V+VI origin in that now only 14 per cent of the total association lies in cells indicating immobility. This will of course in important part reflect occupational sex segregation, but it has also to be noted that it is among skilled manual workers *in almost exclusively male occupations* that cases of highly developed 'occupational communities' have most often been documented (cf. Salaman, 1974). The apparent infrequency of such communities in female dominated occupations could therefore be an important part of the explanation of why bringing mother's occupation into the analysis may do little to make the microclass approach more applicable in the case of women.

Turning to the contributions of father's occupation and father's social class to child's occupational attainment, our analyses allow us to determine what part of the total association in our 108×108 tables derives from the association between father's occupation and child's occupation *holding father's class constant*, and what part from the overall association between father's class and child's occupation. That is to say, we can partition the G^2 s for the independence model as fitted to our 108×108 tables into two components: (i) that which is the sum of the G^2 s for the independence model as fitted to each of the eight separate 'class-of-origin' occupational mobility tables, as shown in Table 3; and (ii) that which is the G^2 for the independence model fitted to a single 8×108 , father's class by child's occupation table.⁵ As reported at the bottom of Table 3, for fathers and sons the association between their occupations within classes of origin accounts for 35 per cent of the total association in the 108×108 table, while the association between father's class and son's occupation accounts for 65 per cent; for fathers and daughters the corresponding proportions are 30 per cent and 70 per cent.

These results then serve to confirm our view that an emphasis on the importance of specifically occupational, as distinct from class, effects in intergenerational immobility can easily be exaggerated. Overall, occupational attainment among both men and women alike is structured more by the class positions of their fathers than by the occupations of their fathers within a given class.

Returning now to the main line of our results in Table 2, we may note that JGDPB do accept (e.g. 1008) that some class immobility effects occur *over and above* occupational immobility effects, and we seek then to capture these effects by means of Model 3. In this model, as well as the main diagonal cells of the 108×108 occupational mobility table being fitted exactly, so also are the main diagonal cells of the overlaid 8×8 class mobility table. (The non-diagonal cells of the 108×108 table falling within each of the diagonal cells of the class mobility table are not themselves fitted exactly, but are rather given a common density parameter.) Now, as can be seen, about 53 per cent of the total association in the men's 108×108 table and 29 per cent of that in the women's table is accounted for. This is something of an improvement. However, the question still obviously arises of how the substantial degree of association that remains is to be dealt with and, crucially, of how it is to be dealt with from the theoretical position underlying microclass analysis.

In this regard, we note what is, for us, a very strange feature of JGDPB's general model, as set out above. Although this is explicitly described as a '*mobility model*' (1001, our emphasis) that aims to incorporate simultaneously gradational, class and occupational effects, the only term in the model that relates to mobility as well as immobility is the gradational ϕ_{ij}^{uu} term, i.e. no terms are included that aim to capture either class *or* occupational, i.e. for JGDPB, microclass, effects on mobility *per se*. In the spirit of JGDPB's model, we thus fit to our Swedish data Model 4 in the series of Table 2 which is Model 3 plus the ϕ_{ij}^{uu} gradational term, as implemented, following JGDPB, through the International Socio-Economic Index of Occupational Status (Ganzeboom et al., 1992).⁶

A further improvement in fit is in this way produced – and especially for women. The proportion of the total association accounted for in the 108×108 table for women now approaches a half, while in that for men it is close to two-thirds. Also, the negative BIC statistic is increased substantially in both cases. But what has at the same time to be recognized is that, apart from the model still being far from reproducing the data, the improvement in fit is only achieved through an abandonment of the idea of the occupational specificity of mobility processes and by an appeal instead to the ‘generic’ processes implicit in the gradational approach – one of the two established approaches that JGDPB wish set their own position *against*. In commenting on the general pattern of their comparative results, which are on similar lines to those we obtain for Sweden, JGDPB do indeed state (1011) that as regards the mobility chances of children who exit from their parental microclass, these are primarily shaped by ‘the simple tendency to move to occupations that are socioeconomically close’.

The rather perplexing situation that thus arises – given JGDPB’s apparent ambition to develop a whole new approach to mobility research based on occupation-specific effects – is that they do not even *attempt* to implement this approach in the case of mobility as opposed to immobility. In some seeming awareness of this, they offer various remarks on the possibility that there may be other kinds of affinity existing between occupations apart from that of socio-economic closeness. But the important point remains that these affinities do not figure in their mobility model, nor are they in any way treated in their empirical analyses. Rather, in seeking to account for mobility propensities *per se*, i.e. for association in the off-diagonal cells of the occupational, or, supposedly, microclass, mobility table, JGDPB simply fall back on the gradational approach.

Results – II

As well as having no term that aims to capture occupation-specific effects on mobility, as opposed to immobility, JGDPB’s mobility model, as noted above, also has no term or terms that aim to capture corresponding class effects. However, JGDPB at various points acknowledge (e.g. 985) that some class analysts do aim to model both immobility and mobility processes *together* (as indeed do gradational analysts) and we would in fact regard this as the approach that has been most commonly followed. It is therefore of some interest to take such an approach to our Swedish data. We should stress that we would not expect a model specifically designed to account for *class* mobility to be able to satisfactorily reproduce the data of detailed occupational mobility tables, such as the 108×108 tables with which we are concerned here. Indeed, on grounds that we set out later, we would doubt if such tables can be successfully modelled in *any* systematic way. The point of the exercise we undertake is to see how well a theoretically coherent class approach performs in comparison with the theoretically problematic Model 4 on which we have commented above.

The model with which we work is a version of the ‘core model’ of social fluidity, proposed on the basis of the EGP class schema, and with a corresponding theoretical rationale, by Erikson and Goldthorpe (1992a: ch. 4). The model aims to capture the generic pattern of social fluidity found within the class structures of advanced societies in terms of four kinds of effect.⁷ How far these four effects can be differentiated is dependent on the degree of detail in the data to be used. In the case of our Swedish data, we can apply a version of the core model intermediate between that developed in the CASMIN project (Erikson and Goldthorpe, 1992a) and an extended version that was developed later (Erikson and Goldthorpe, 1992b). The design matrices used in fitting the model are given in Table A3 in Erikson et al. (2012).

Hierarchy effects

These are effects on fluidity deriving from differences in the general desirability of positions within classes; and further from the relative advantages offered by different classes (e.g. in terms of economic, cultural and social resources) when considered as classes of origin, and from the relative barriers to access to them (e.g. in terms of formal qualifications, skills or capital) when considered as classes of destination. We include four hierarchy effects, HI1–HI4, based on the ordering of our eight classes as

indicated in Table 1, i.e. by separating Classes I, II, III+IVab, V+VI+IVc and VIIa+VIIb, respectively. HI1 represents a base level and HI2, HI3 and HI4 represent successive shifts from this base level, implying *additional* reductions in fluidity as more hierarchical divisions are crossed.⁸

Inheritance effects

These are effects deriving from the special attractiveness to individuals of positions falling within their own class of origin, and further from distinctive opportunities for the inheritance of class positions (e.g. via the transmission of capital or 'going concerns' or special skills) or from distinctive constraints on mobility away from classes of origin (e.g. limited opportunities in local labour markets). Three inheritance effects, IN1–IN3, are included to operate in cells on the main diagonal of the class mobility table. IN1 represents a base level for all eight classes, and IN2 and IN3 imply successively increasing propensities for class immobility, with IN2 applying additionally to Classes I and IVc, those of higher-grade professionals and managers and of farmers, and IN3, additionally again, to IVc.⁹

Sector effects

These are effects deriving from economic divisions that create vertical rather than horizontal, or hierarchical, barriers to mobility (e.g. in that mobility across sectors is likely to require geographical and/or sociocultural relocation). Two sector effects, SE1 and SE2, are included. SE1 operates as between the two classes in the agricultural sector, Classes IVc and VIIb, and all other classes, and SE2 as between the two classes of 'independents', Classes IVab and IVc, and all others.

Affinity and disaffinity effects

These are effects deriving from specific linkages or discontinuities between classes that influence patterns of social fluidity over and above the more generalized hierarchy, inheritance and sector effects. Three such effects, AF1, AF2 and AF4 are included. AF1 is a disaffinity effect representing the exceptional barriers to mobility, in either direction, between Class I and Class VIIb on account of the interaction of hierarchy and sector effects. AF2 represents the affinities existing in the cases of Classes I, II and III on account of their common 'white-collar' social status and in the cases of Classes V+VI and VIIa on account of their common 'blue-collar' status, which are taken to facilitate fluidity among these classes. AF4 is a further affinity, but of a 'one-way' kind, representing the high propensity for mobility from the two agricultural classes, IVc and VIIb, to Class VIIa, that of non-skilled manual workers.¹⁰

We may report, first of all, that if the core model, as described above, is fitted to the 8×8 class mobility tables that overlie our 108×108 occupational mobility tables reasonably satisfactory results are achieved, despite the return of positive BIC statistics. In the case of men, 93.1 per cent of the total association in the table is accounted for and in the case of women 87.6 per cent, while the DIs are quite low at 4.5 and 4.0, respectively. Moreover, the parameter estimates, as reported in the (a) columns of Table 4, are all significant and take their expected signs.

Our main concern here, however, is with the further results that we report in Table 2. Model 5 in this table is simply the core model fitted now to the 108×108 mobility tables for men and women. Not surprisingly, while the parameter estimates are the same as when the model is applied to the 8×8 class mobility tables, the fit is much worse, even though close to 50 per cent of the total association is accounted for. But Model 5 serves primarily as a basis for introducing Model 6. In this case, we supplement the core model to take account of what we see as JGDPB's most significant finding: that in the case of men, if not of women, there is a propensity for occupational inheritance that, though variable, is often quite strong. That is to say, we add the quasi-independence model for the 108×108 table – Model 2 in Table 2 – to the core model, to which we have then to make some slight modifications.¹¹

Table 4. Parameter estimates for different fits of the core model

Parameter	Males		Females	
	(a)	(b)	(a)	(b)
HI1	−0.11	−0.09	−0.06	−0.06
HI2	−0.20	−0.23	−0.21	−0.22
HI3	−0.35	−0.37	−0.34	−0.35
HI4	−0.24	−0.26	−0.33	−0.34
IN1	0.20	0.02	0.04	−0.01
IN2	0.60	0.59	0.56	0.49
IN3	1.01	—	0.56	—
SE1	−0.71	−0.64	−0.33	−0.31
SE2	−0.22	−0.10	−0.10	−0.06
AF1	−0.43	−0.40	−0.09	−0.08
AF2	0.16	0.11	0.08	0.07
AF4	0.09	0.04	0.10	0.08

Note: (a) As fitted to the 8 × 8 class mobility table or under Model 5, Table 2. (b) As fitted (modified) under Model 6, Table 2.

As can be seen from Table 2, Model 6 makes a big improvement on Model 5 and, more importantly for present purposes, gives a fit to the data of our 108 × 108 tables that proves, and particularly for women, to be better than that of Model 4 while remaining theoretically more coherent. Model 4, as earlier observed, treats mobility – as distinct from immobility – as being determined by the generic effects of socio-economic ‘closeness’ and thus leads JGDPB to diverge from the emphasis on occupation-specific effects that is, theoretically, at the heart of the microclass approach. In contrast, Model 6 treats mobility, and in part also immobility, through the core model and thus consistently with the standard class approach¹² – although with due recognition also being given, in the case of a detailed occupational mobility table, to immobility as created by occupation-specific in addition to class-wide effects.

In view of the fact that Model 6 does better than Model 4 without the need for a gradational socio-economic effect, it is of some further interest to see how far Model 6 can itself be improved by, in Model 7, introducing such an effect, i.e. by means of the ISEI association term as included in Model 4. As is shown in Table 2, some further improvement is achieved but, for men and women alike, of only a rather meagre kind. In other words, the core model would appear to capture within a coherent class perspective a large amount of what within a gradational perspective would be seen as socio-economic ‘closeness’. The indication then is that in their comparative analyses JGDPB might have done better by combining their microclass approach with a standard class approach rather than, anomalously, with the gradational approach.

Finally, though, what has once again to be recognized is that none of the models represented in Table 2 comes at all close to giving a good fit to the data of our 108 × 108 occupational mobility tables. Even when, as in Model 7, terms are included to capture occupational inheritance effects plus class and socio-economic status effects on both immobility and mobility, still over 30 per cent of the total association in the tables is unaccounted for and DIs of more than 11 for men and more than 9 for women are returned.¹³ For adherents of the standard class approach to social mobility research, this need be of no great concern. Their focus is on mobility among what JGDPB would call ‘big classes’ rather than among microclasses or, that is, detailed occupational groups. The one qualification to their position that is suggested is that they should accept JGDPB’s observation that, with men, some non-negligible part of class immobility is likely to be the product of occupation-specific rather than class-wide effects. However, for JGDPB themselves the situation is far more serious for reasons on which we elaborate in the following section.

The problem of mobility in microclass analyses

If the case is to be made out for 'ratcheting down' the analysis of social mobility to the level of occupational groups in order to give due recognition to social processes determining mobility chances that operate only at this level, then it is clearly not enough for analyses to focus on occupational immobility, or inheritance, alone. The microclass approach must also be able to account for mobility. And simply to revert in this case to the gradational approach and invoke generic socio-economic status effects, as JGDPB do, can scarcely be regarded as satisfactory. The major challenge that microclass analysts must face up to is to show how occupation-specific effects determine propensities for occupational inheritance *and* for intergenerational mobility among occupations alike

As earlier noted, JGDPB do from time to time show an awareness of this issue and raise the possibility that occupational affinities might be identified that structure mobility, apart from that of socio-economic closeness. Thus, at one point, following Hout (1988), they suggest (991) that occupations might in some way be scaled by the kinds of skills or of cultural capital or social networks that are distinctively associated with them, with the expectation that mobility between occupations would then be greater, the closer they were according to such scaling. However, this idea is not taken further.

Instead, at a later point, JGDPB (1012) proceed more empirically by examining residuals under their basic mobility model for clues as to occupational affinities that might serve their theoretical purposes. They do in fact note a number instances of 'excess exchange' that, they appear to believe, could be of wider significance. For example, excess intergenerational mobility shows up between the categories of ships officers and fishermen – suggesting a sea-faring affinity; between those of health professionals and semi-professionals – suggesting a health sector affinity; between those of authors and librarians – suggesting a literary affinity; and between those of accountants and bookkeepers – suggesting a financial sector affinity. Again, though, JGDPB do not pursue the possibilities they raise – and perhaps wisely so. What it would seem they are in effect envisaging here is a return to the long-forgotten concept of 'situs' (Morris and Murphy, 1959), relating to a form of 'horizontal' occupational differentiation, orthogonal to that of socio-economic status. However, this is a concept that appears never to have paid off empirically, whether in the study of social mobility or otherwise.¹⁴

In sum, JGDPB do very little to show how in microclass analyses it is possible to bring out occupation-specific effects in regard to mobility as well as to immobility. And this then raises another possibility that, we believe, has to be seriously considered: namely, that a detailed occupational mobility table, unlike a class mobility table, is not in fact open to successful modelling in *any* systematic way. This is because, as the degree of detail – of ratcheting down – increases, the content of such a table is increasingly likely to express mere happenstance rather than the effects of any regularly operating factors: that is, instances of mobility that are *highly specific to time and place* as, say, in resulting from the shifting conditions of local labour markets – the very particular constraints and opportunities that come and go as these markets adjust to wider cyclical or structural economic change.¹⁵

Normative issues

JGDPB regard the microclass approach to social mobility research as marking an advance on the gradational or standard class approaches not just in revealing hitherto unappreciated sources of the structuring of mobility propensities but further in throwing new light on normative issues of equality of opportunity. In this respect also we find their arguments in various respects unconvincing.

Social reproduction, JGDPB write, 'can in large part be equated with inequality of opportunity' (979), and this, they claim, is just as true of reproduction in the form of occupational inheritance as in the form of status or class inheritance. In the end, 'all ascriptive constraints on choice, even those pertaining to purely horizontal inequalities, are inconsistent with a commitment to an open society' (1023).

We find this argument difficult to understand and, even as best we can interpret it, still inadequate. Difficulties of understanding arise on account of the concept of 'horizontal inequalities' which seems

oxymoronic. However, even if we suppose that what JGDPB wish to refer to here is simply occupational *differentiation*, their argument, as it stands, is incomplete. In philosophical discussion of the principle of equality of opportunity, the possibility is indeed recognized that this principle may be contravened even where the positions that individuals should have equal opportunity to achieve are not themselves unequal (Marshall et al., 1997: Appendix E). But what has to be made out is a rather special case: namely, that inequality arises *in individuals' chances for self-fulfilment*, that is, for present purposes, in their chances of entering an occupation which they wish to enter and in which, they believe, their particular human potentialities could be most fully realized. However, JGDPB do not present any case of this kind. They simply demonstrate a statistical disparity in the form of the high propensity for occupational inheritance and then *assume* that this is essentially a matter of lack of opportunity or, in other words, of constraint. Chance in the sense of 'statistical probability' is confounded with chance in the sense of 'opportunity set' (Swift, 2004).

In some particular circumstances, we would accept that JGDPB's assumption might be reasonable: for example, where a high level of occupational inheritance results from local labour markets being dominated by one industry and the occupations associated with it – as in the 'isolated mass' situations of coal miners, loggers or in some cases textile workers, as discussed by Kerr and Siegel (1954). But, more generally, the question of whether children follow in their parents' occupational footsteps on account of constraint rather than of their own preferences is a far more complex one. At certain points (e.g. 988 f.), JGDPB do indeed emphasize that children 'cathect' with their parents and thus tend to view their occupations in a favourable light, even if they are relatively disadvantaged ones. But, rather than accepting that where children then enter these same occupations, this may be because they actually want to do so – and as perhaps their best way of pursuing self-fulfilment – JGDPB always come back to their underlying position: 'Even though some reproduction may partly be due to differences in taste ... we nonetheless refer to it as "inequality" *under the assumption* that tastes are themselves largely endogenous' (979, our emphasis). In other words, tastes, as they result, say, from parental socialization, are constraints on the individual of just another kind, and *all* choice must be regarded as essentially 'adaptive'. Thus, for JGDPB, a mobility table would indicate a genuine equality of opportunity only if the independence model fitted: *any* departure from 'perfect mobility' has, by fiat, to be seen as incompatible with 'a commitment to an open society'. However, the serious philosophical difficulties that arise in taking perfect mobility as a benchmark for the assessment of equality of opportunity, even where mobility is understood as 'vertical', have been well set out by Swift (2004; cf. Roemer, 2004), and are only compounded where 'horizontal' mobility is involved.

JGDPB do in fact seem to have some awareness that their stance here is a precarious one and seek to strengthen it with a further argument. They note (1023) that it may be 'tempting' to suggest that 'the extreme microclass inequalities uncovered ... are not all that objectionable' and that it may be asked whether one should care all that much if the child of a truck driver has a special propensity to become a truck driver while the child of a gardener has a special propensity to become a gardener. Their answer is that one should care, because, even if one is not impressed by their position on 'horizontal inequalities', one should recognize that such inequalities 'contribute directly to the perpetuation of vertical ones'. The propensity for occupational immobility within occupational groups such as truck drivers and gardeners matters if not because they are 'crucially different in their relative attractiveness' but because 'microclass immobility of this sort is the principal mechanism ensuring that the working class reproduces itself' (1023 f.).

Again, though, we do not find JGDPB's argument at all compelling. It relies on the very questionable supposition that if fewer children of truck drivers became truck drivers and fewer children of gardeners, gardeners, then those who escaped from occupational 'closure' would move up out of the working class rather than entering other working-class occupations. However, Table 3 above shows that in accounting for the total association in our Swedish occupational mobility tables, the association between father's class and child's occupation is in fact around twice as important as the association between father's and child's occupations given father's class. Indeed, JGDPB's argument would make more sense if stood on its head, i.e. if

it were held that it is the inequalities of opportunity for attaining more advantaged class positions that working-class children face that promote occupational immobility within the working class. Where it is apparent to working-class children that their chances of upward mobility are slight – on account, say, of their relatively poor academic attainments – then it may well make sense for them to exploit any occupation-specific forms of human, cultural and social ‘capital’ that they can acquire from their family and to follow in their family’s occupational tradition – if it has one – rather than seeking to move into some other occupation within the working class (cf. Goldthorpe, 2007: vol. 2, 173 f.). That is to say, occupation-specific effects would be better understood as subordinate to, and conditional on, class effects.

Conclusions

Grusky’s proposal for the ‘ratcheting down’ of class analysis to the level of microclasses, or, in other words, to that of detailed occupational groups, finds an important expression in JGDPB’s article. The authors’ aim would appear to be that of presenting the microclass analysis of social mobility not as in some way supplementary to the established gradational and class approaches but rather as a fully-fledged competitor with them. They focus on ‘social reproduction’, i.e. on *immobility*, and in this regard, as we recognize, they have one good point to make, even if they exaggerate its quantitative importance and especially in regard to women: namely, that at the level of occupations quite strong propensities for inheritance may exist, so that some part of what in the standard class approach would be treated as class immobility in fact results from occupation-specific rather than from class-wide effects. However, the main aim of our critique has been to bring out the seriousness of the problems for the microclass analysis of mobility that JGDPB’s article leaves unresolved, and indeed largely unaddressed, and that thus stand in the way of the realization of their larger ambitions.

The nub of the matter is this. The class approach to mobility research that we would ourselves favour – and likewise the gradational approach – aims to model propensities for *both* immobility and mobility simultaneously and on the same theoretical basis. However, while within their proposed new approach JGDPB have developed a theoretical basis for understanding immobility at least to some extent, i.e. in terms of occupationally specific resources, occupational closure, etc. – they have not shown how their approach might be extended to the treatment of mobility as distinct from immobility. In the ‘mobility model’ they present in their article, the only term relating to mobility *per se* is in fact the gradational ϕ_{ij}^{***} term which would seem theoretically anomalous given their emphasis on occupation-specific as opposed to generic socio-economic status effects in shaping mobility propensities. And in turn in their empirical analyses, JGDPB can only treat these propensities as a matter of socio-economic closeness – a difficulty on which they opt not to comment. Moreover, our own analyses of Swedish mobility tables reveal that this difficulty is likely to be a major one. In the first set of results we report, we show that adding the ISEI association term to a model incorporating maximum occupational and class immobility effects does give an improvement in fit, but that still with this theoretically incongruous model, a third of the total association in the table for men and a half in that for women remains unaccounted for. The crucial question facing JGDPB is then that of how this remaining association, in the off-diagonal cells of the tables, is to be dealt with.

In our second set of results, we further show that a class approach via the core model of social fluidity, supplemented by the occupational immobility effect, gives a better fit than the model with the ISEI association term while retaining greater theoretical consistency. But even so, as would be expected with a model designed to account for class rather than for detailed occupational mobility, the fit remains far from good. And again the point that is underlined is that if JGDPB are to justify their ratcheting down of mobility analysis to the occupational level, they need to find factors patterning mobility propensities at this level, i.e. below that of classes, and ones that are distinct from, and more powerful than, that simply of socio-economic closeness.

In this regard, JGDPB put forward some ideas, derived from inspection of residuals under their mobility model, that would in effect appear to hark back to the concept of *situs*. However, they do not then set

these ideas to work, and we have indicated grounds for supposing that they would not in fact prove to be very productive. The major challenge for JGDPB thus remains. Having proposed the ratcheting down of mobility analyses to the occupational level, they have usefully drawn attention to processes creating immobility, chiefly in the case of men, that other approaches overlook; but they then need to identify analogous occupation-specific processes generating and structuring mobility. This they have so far failed to do, and there are reasons for believing that it may not in fact be possible: in this sense, there may well be no way back up from ratcheting down.

The deficiencies we have revealed in JGDPB's attempt to apply the microclass approach to the analysis of intergenerational social mobility then lead on to larger questions concerning not only the viability of, but also the need for, the entire project of salvaging class analysis through in effect ignoring what occupations within a class have in common, as regards the relations in which their members are involved in labour markets and production units, and concentrating instead on their particularities. Occupation, we would agree, can provide a useful basis for the understanding of many social processes and outcomes in modern societies. But as regards issues of social stratification, social mobility and inequality of opportunity, it is class that, at both a conceptual and empirical level, has to be regarded as dominant. This becomes most apparent once 'social reproduction' is understood not in the limited sense of intergenerational immobility, as favoured by JGDPB, but rather as referring to persisting patterns of intergenerational immobility *and* mobility. Class analysis, as exemplified by our application of the core model, may not capture many of the highly specific processes that are involved in occupational mobility – processes that often reflect simply social differentiation rather than social stratification – but neither, as we have shown, does the microclass approach, despite its theoretical focus on these processes; and in class analysis, in contrast to microclass analysis as represented by JGDPB, immobility and mobility are at all events treated together in a coherent way. Moreover, we have also shown that insofar as individuals' detailed occupational attainment is open to systematic analysis, it proves to be structured far more by father's class position than by father's occupation within a given class, and in turn that tendencies for occupational immobility within less advantaged classes are far more plausibly understood as following from, rather than as creating, class immobility and related restrictions on opportunity. In sum, the analysis of occupational mobility can, at best, supplement that of class mobility, not replace it – and even if occupations are collectivities with which individuals more readily identify than with classes. Grusky's distinction between 'nominalist' and 'realist' conceptions would seem in this connection to be rather beside the point: nominal classes are real enough in their consequences.

Acknowledgments

We thank Jan Jonsson and Carina Mood for their help with coding algorithms, Reinhard Pollak for helping us to analyse the German dataset, John McDonald for statistical advice and two reviewers for very constructive comments.

Funding

Erikson acknowledges support from the Swedish Council for Working Life and Social Research, Grant no. 2010-0101; Hällsten acknowledges support from the Swedish Research Council, Grant no. 2008-7499.

Notes

1. JGDPB use a random sample of the same database, while they also analyse data from the United States, Germany and Japan. However, we restrict our analyses to Sweden since we in fact believe that it is only in this case that JGDPB's analyses are likely to be free of potentially serious problems of sparsity in the mobility tables they use, although these problems are concealed in that their analyses are based on the pooled data for all four of the countries they consider. For the US, the German and the Japanese mobility tables that they construct, the average cell counts are, respectively, 6.9, 1.9 and 1.3 for men and 1.8, 0.9 and 0.6 for women (as compared with the averages for Sweden of 27.0 and

26.0) and it may therefore be supposed that many zero cells exist. As an experiment, we undertook (with generous help from Reinhard Pollak) similar analyses to those we report below for Sweden using the German microclass mobility table for men. The results, available on request, are highly anomalous and indicate that sparsity, in the off-diagonal cells, is indeed a problem. For example, with a 97 x 97 table and an N of 12,178, the quasi-independence model returns a likelihood ratio of 7994 which is much smaller than the degrees of freedom of 9119 while the DI is as large as 26.0. We are grateful to John McDonald for his advice on this issue.

2. The Bayesian information criterion (BIC) provides a possibility to compare the fit of non-nested models (Raftery, 1995). The smaller BIC is, the relatively better is the fit.
3. We have also produced a table including only those cases where a daughter had a mother who reported an occupation. This table has several zeros in the marginals. However, with this qualification, we may note that the quasi-independence model still reduces the total association in the table by only 17.1 per cent. Full details of all our mother-to-daughter analyses are provided in Table A2 in Erikson et al. (2012).
4. A high propensity for occupational immobility in this instance is scarcely surprising. In addition to any socio-cultural influences of the kind that JGDPB would wish to highlight, the intergenerational transmission of land as a form of fixed capital – more a class effect than an occupationally specific one – and geographical constraints are also likely to be involved.
5. The results of fitting this model are available from the authors on request. The partitioning can be understood in the following way. We model the association in a table of 108 x 108 = 11,664 cells. The 108 origin occupations are nested within eight class origins. Thus, we have in effect a three-way table of class origin by occupational origin by occupational destination. Three models of independence can be set up.

$$\log F_{ij.} = \mu + \lambda_{i.}^o + \lambda_{.j.}^d \quad (1)$$

$$\log F_{ijk} = \mu + \lambda_{i.k}^o + \lambda_{jk}^d \quad \text{for } k = 1 \dots 8 \quad (2)$$

$$\log F_{.jk} = \mu + \lambda_{.k}^o + \lambda_{j.}^d \quad (3)$$

where *i* refers occupational origin, *j* to occupational destination and *k* to class origin.

Model (1) is the independence model for the full table, model (2) refers to the eight independence models for each class origin, and model (3) is the independence model for class origins by occupational destinations. Models (2) and (3) can be regarded as nested within model (1), with the consequence that the G^2 for model (1) can be partitioned into the G^2 s for models (2) and (3), if model (3) is fitted to a table of class origin by occupational destination with 8 x 108 cells. Thus,

$$G^2(o.d) = \sum G^2(o.d|c) + G^2(c.d)$$

where

o = occupational origin

d = occupational destination

c = class origin

6. We thank Jan Jonsson for providing us with the algorithm for implementing the ISEI.
7. As well as being used in Erikson and Goldthorpe's own work, as cited, the model has been applied in much other comparative mobility research as, for example, by contributors to the collections edited by Breen (2004) and Ishida (2008).

8. In other words, all '1s' in the design matrices of Table A3 (Erikson et al., 2012) imply an additive contribution to the expected log frequencies under the model. For example, in the case of a move from Class I to Class VIIb, all four hierarchy effects have to be included, together with, as explained further below, a sector and a disaffinity effect.
9. In the version of the core model in Erikson and Goldthorpe (1992b), the IN2 term was also included in the diagonal cell for Class IVa, that of small employers. However, since in the present dataset we cannot distinguish between Class IVa and Class IVb, that of self-employed workers, we do not include the IN2 term in the diagonal cell for these combined classes.
10. The AF3 term in the version of the core model in Erikson and Goldthorpe (1992b) involves Class IVa and has to be omitted here in view of the fact that, as referred to in the preceding note, we cannot separate Class IVa from Class IVb.
11. Fitting exactly the cell in the 108 x 108 table that indicates immobility among farmers means fitting almost exactly (almost, because Class IVc includes in addition to farmers small numbers of other self-employed workers in primary production) the cell indicating immobility among farmers in the class mobility table, i.e. the IVc–IVc cell. We need therefore to drop from the core model the IN3 term which applies solely to this cell and in turn to include zeros rather than ones for this cell in the design matrices for the IN1 and IN2 terms.
12. It may be observed from Table 4 that the parameter estimates of the core model under Model 6 – the (b) column estimates – are little different, except of course in the case of the modified IN parameters, from those under Model 5 or when the core model is fitted to the 8 x 8 class mobility table.
13. It should be noted that in their comparative analyses JGDPB likewise fail to produce well-fitting models of the detailed occupational mobility tables with which they work; see, e.g., their Table 4.
14. We have in fact checked whether the fit of the models of Table 2 could be improved by including a measure of occupational situs, based on the categories proposed by Morris and Murphy (1959). The improvement achieved is minimal. Details of our analysis are available on request.
15. For example, although the evidence comes from journalistic accounts rather than academic social research, it seems that after the collapse of the British coal mining industry in the later 1980s, the occupations that the sons of former miners most often took up, when they could no longer follow in their fathers' footsteps, were those of lorry or van driver, food factory operative or security guard – clearly not because of any affinity with coal-mining but simply because these were the occupations most readily available.

References

- Birkelund GE (2002) A class analysis for the future? Comment on Grusky and Weeden. *Acta Sociologica* 45(3): 217–221.
- Breen R (ed.) (2004) *Social Mobility in Europe*. Oxford: Oxford University Press.
- Brooks C and Svallfors S (2010) Why does class matter? Policy attitudes, mechanisms, and the case of the Nordic countries. *Research in Social Stratification and Mobility* 28(2): 199–213.
- Erikson R and Goldthorpe JH (1992a) *The Constant Flux: A Study of Class Mobility in Industrial Societies*. Oxford: Clarendon Press.
- Erikson R and Goldthorpe JH (1992b) The CASMIN project and the American dream. *European Sociological Review* 8(3): 283–305.
- Erikson R, Goldthorpe JH and Hällsten M (2012) No way back up from ratcheting down? A critique of the 'microclass' approach to the analysis of social mobility. Working Paper 6/2012, Swedish Institute for Social Research, Stockholm University. Available at: <http://swopec.hhs.se/sofiwp/>

- Ganzeboom HBG, De Graaf PM and Treiman DJ (1992) A standard international socio-economic index of occupational status. *Social Science Research* 21(1): 1–56.
- Goldthorpe JH (2002) Occupational sociology, yes: class analysis, no: comment on Grusky and Weeden's research agenda. *Acta Sociologica* 45(3): 211–217.
- Goldthorpe JH (2007) *On Sociology*, vol. 2. Stanford, CA: Stanford University Press.
- Grusky DB and Galescu G (2005a) Is Durkheim a class analyst? In: Alexander J and Smith P (eds) *The Cambridge Companion to Durkheim*. Cambridge: Cambridge University Press, pp. 322–359.
- Grusky DB and Galescu G (2005b) Foundations of a Neo-Durkheimian class analysis. In: Wright EO (ed.) *Approaches to Class Analysis*. Cambridge: Cambridge University Press, pp. 51–81.
- Grusky DB and Sorensen JB (1998) Can class analysis be salvaged? *American Journal of Sociology* 103(5): 1187–1234.
- Grusky DB and Weeden KA (2001) Decomposition without death: A research agenda for a new class analysis. *Acta Sociologica* 44(3): 203–218.
- Grusky DB and Weeden KA (2002) Class analysis and the heavy weight of convention. *Acta Sociologica* 45(3): 229–236.
- Grusky DB, Weeden KA and Sorensen JB (2000) The case for realism in class analysis. *Political Power and Social Theory* 14: 291–305.
- Hout M (1988) More universalism, less structural mobility: The American occupational structure in the 1980s. *American Journal of Sociology* 93(6): 1358–1400.
- Ishida H (ed.) (2008) *Social Stratification and Social Mobility in Late-Industrializing Countries*. The 2005 SSM Research Series, Volume 14. Sendai, Japan: The 2005 SSM Research Committee.
- Jonsson JO, Grusky DB, Di Carlo M, Pollak R and Brinton MC (2009) Microclass mobility: Social reproduction in four countries. *American Journal of Sociology* 114(4): 977–1036.
- Jonsson JO, Grusky DB, Pollak R, Di Carlo M and Mood C (2011) Occupations and social mobility: Gradational, big-class, and micro-class reproduction in comparative perspective. In: Smeeding TM, Erikson R and Jäntti M (eds) *Persistence, Privilege and Parenting*. New York: Russell Sage Foundation, pp. 138–171.
- Kerr C and Siegel A (1954) The inter-industry propensity to strike: An international comparison. In: Kornhauser AW, Dubin and Ross AM (eds) *Industrial Conflict*. New York: McGraw Hill.
- Kingston PW (2000) *The Classless Society*. Stanford CA: Stanford University Press.
- Marshall G, Swift A and Roberts S (1997) *Against the Odds?* Oxford: Oxford University Press.
- Morris RT and Murphy RJ (1959) The situs dimension in occupational structure. *American Sociological Review* 24: 231–239.
- Pakulski J and Waters M (1996) *The Death of Class*. London: Sage.
- Raftery AE (1995) Bayesian model selection in social research (with Discussion). *Sociological Methodology* 25: 111–196.
- Roemer JE (2004) Equal opportunity and intergenerational mobility: Going beyond intergenerational income transition matrices. In: Corak M (ed.) *Generational Income Mobility in North America and Europe*. Cambridge: Cambridge University Press, pp. 48–57.
- Salaman G (1974) *Community and Occupation*. Cambridge: Cambridge University Press.
- Swift A (2004) Would perfect mobility be perfect? *European Sociological Review* 20(1): 1–11.

Author Biographies

Robert Erikson is Professor of Sociology at the Swedish Institute for Social Research, Stockholm University. His research interests concern social stratification and mobility, education, family and health,

especially the study of individual change over the life course and how it can be understood with regard to individual and structural conditions.

John Goldthorpe is Distinguished Senior Research Fellow in the Department of Social Policy and Intervention, University of Oxford, and an Emeritus Fellow of Nuffield College. His main interests are in the fields of social stratification and mobility and in the integration of sociological theory and research.

Martin Hällsten received his PhD from Stockholm University in 2010 and works as a researcher at the Swedish Institute for Social Research. His research is focused on social stratification in general, and specifically intergenerational processes, educational choice, ethnic inequality, returns on education and inequality in social network resources.