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Labour Market Trends and the Goldthorpe Class Schema: A Conceptual Reassessment*

Daniel Oesch**

1 Introduction

Class schemas are arguably the most powerful tools for the analysis of different labour market segments. When seen as a proxy for *similarity in labour market situation*, they provide a conceptual framework that allows to differentiate between various occupational groups and present thus an effective shortcut in empirical research for a series of socio-economic characteristics of individuals (Müller, 1997, 759). Probably the most widely used class schema in European sociology is the one associated with the writings of John H. Goldthorpe and his colleagues.¹ There are good reasons explaining why this schema has gained such an influential position in international research on stratification. It relies on a clearly specified conceptual rationale, distinguishing classes on the basis of different employment relationships. Moreover, it has – thanks to its pragmatic scope – proven very useful in empirical inquiry.

However, the conceptual bases of the schema have primarily been developed to reflect the employment structure up to the mid-1970s, typical of high industrialism, “and not to predict the future” (Erikson and Goldthorpe 1992, 237). In fact, the most influential research by far using the Goldthorpe class schema is based on data that reflects the employment structure of the mid-1970s and backwards (Erikson and Goldthorpe, 1992). Furthermore, the most sophisticated assessment of the schema’s validity rests on data collected in 1984 (Evans 1992, 1996; Evans and Mills 1998), although analyses have been redone with data from 1996 (Evans and Mills, 2000).

In this context, we wish to argue that since the early 1980s – and, a fortiori, since the 1970s – a series of socio-economic trends have become more pronounced

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1 Notably: Erikson, Goldthorpe and Portocarero (1979); Erikson and Goldthorpe (1992); it is also known as CASMIN (S. Joye) schema (as it was developed for the Comparative Analysis of Social Mobility in Industrial Nations).

and have substantially altered the employment structure of the economically advanced countries. The question thus arising is whether the Goldthorpe schema still captures the essence of European labour markets that have undergone major transformations over the last twenty to thirty years. In our view, two trends in particular are likely to challenge the schema. On the one hand, the expansion of the service sector at the expense of manufacturing (the *sector-shift* in the economy); on the other hand, the increased participation of women in paid employment (the *gender-shift* in employment). These shifts are by no means new and could be completed by additional vectors of change within the labour market such as the adoption of new computerized and information technologies, the introduction of new forms of human resources management or the intensification of international trade (see Gallie [et al.], 1998).

Our discussion will be structured as follows. In a first part, we will argue that what looked like blurry tendencies two decades ago has solidified into increasingly tertiarized and feminized labour markets. In a second part, we shall discuss at greater length the implications these changes have on stratification research in general and the Goldthorpe schema in particular. Therein, our main focus will lie on the analytical treatment of female-dominated occupations, on the hierarchical dimension within the schema, and on the ambiguous division line between blue-collar workers and lower grade white-collar employees. Finally, in a last part, we propose some conceptual elements that appear capable of remedying the outlined shortcomings of the Goldthorpe schema. The result will be a modified class schema. Before entering the discussion, we must quickly recall the construction logic of the Goldthorpe schema.

2 Summing up the Goldthorpe class schema

In devising their class schema, Goldthorpe and his colleagues have a quite modest scope. Unlike other class sociologists (e. g. Wright, 1985), they reject any automatic link between class structure and class action, limiting the theoretical ambition of their class concept to the claim about the existence of social groupings that share particular sets of employment relations over time. Notwithstanding a clearly pragmatic stance – Erikson and Goldthorpe call the schema an “*instrument de travail*” –, their class schema is based on a theoretical rationale. Its aim is “to differentiate positions within *labour markets* and *production units* or, more specifically, to differentiate such positions in terms of the *employment relations* that they entail” (Erikson and Goldthorpe, 1992, 37).

The conceptualisation of the schema rests on two distinctions. The first division line is threefold and separates different employment status: Employers, self-employed workers without employees, employees. Yet it is to a second division

line, applying specifically to employees, that Erikson and Goldthorpe give greatest emphasis in the construction of the schema. They therein distinguish between different forms of regulation – implicit or explicit – of the employment relation, separating the *labour contract* from the *service relationship* (Erikson and Goldthorpe, 1992, 41). It is through these differences in the nature of the employment regulation that the unequal distribution of life chances should operate. From the labour contract, defined by closely regulated work and payment arrangements, long-term provisions and side benefits are absent. In contrast, from service-class employees, employers seek to obtain loyalty through high levels of trust and the perspective of career advancement. As Evans (1996, 214) puts it, “service-class employees are controlled by the ‘carrot’ of long-term benefits, and workers by the ‘stick’ of close regulation and the labour contract”.

These conceptual considerations are translated into a 11-class or a collapsed 7-class schema. In the 7-class version, the main distinction is the one made between classes I and II on the one hand and classes VI and VII on the other, separating the higher- and lower-grade *service classes of managers and professionals* from the skilled and unskilled *manual working classes*. In an intermediate setting are classes III, covering *routine non-manual positions*, and V, which comprises lower-grade technical and first-line *supervisory positions*. Class IV regroups the *petite bourgeoisie* and the *farmers*. Of particular interest for our discussion is the conceptual treatment Erikson and Goldthorpe (1992, 44) reserve for routine non-manual workers: When applied to women, class III is divided in a higher-grade (IIIa) and a lower-grade class (IIIb) with the purpose of isolating in class IIIb a series of very low-skill non-manual positions normally occupied by women.

3 Two labour market trends

3.1 The tertiarisation of the employment structure

The rise of the service sector is a major trend which goes back at least to the pre-war years and is common to all OECD countries. Three main reasons are put forward to account for it: Firstly, technological change and faster increasing productivity in goods-producing sectors continuously shed redundant industrial workforce to the service sector; secondly, parallel to rising general income, markets are progressively saturated and patterns of demand shifted from goods to services; thirdly, the expansion of the Welfare state and the rise in female labour market participation create both offer and demand for service sector employment (OECD, 2000, 97). The transition from an industrial society to a society dominated by service jobs shall briefly be documented for five Western European countries, namely *Britain, France, Germany, Sweden and Switzerland*. Table 1 gives a broad overview over the evolution in the employment shares of different sectors. In

France, the industrial sector had never been more important than services in terms of employment. In contrast, in 1970 the industrial sector still employed more workers than the service sector in Germany and Switzerland, whereas in Britain and in Sweden services had already surpassed the industrial sector before 1960. Thirty years later, service sector employment exceeded industrial employment in all four countries by a factor of at least 1,8 (Germany) and at most 3,0 (Sweden).

Table 1: Employment share by sector (in %)

Country	Sector	1970	1975	1980	1985	1990	1995	2000
France	Agriculture	13.5	10.3	8.7	7.6	6.4*	4.5**	3.9
	Industry	39.2	38.6	35.9	32.0	30.1*	25.8**	24.1
	Service	47.2	51.0	55.4	60.4	63.5*	69.7**	72.0
Germany	Agriculture	8.6	7.0	5.6	4.6	3.5	3.2	2.8
	Industry	49.3	45.4	44.2	41.0	39.8	36.5	34.5
	Service	42.1	47.6	50.3	54.4	56.7	60.2	62.7
Sweden	Agriculture	8.1	6.4	5.6	4.8	3.4	3.1	2.4
	Industry	38.4	36.5	32.2	29.8	29.1	25.9	24.6
	Service	53.4	57.1	62.2	65.3	67.2	71.0	72.9
Switzerland	Agriculture	8.6	7.9	7.2	6.1	5.2	4.4	4.5
	Industry	45.9	41.3	39.5	35.6	32.0	29.2	26.4
	Service	45.6	50.8	53.3	58.3	62.8	66.5	69.1
United Kingdom	Agriculture	3.3+	2.7	2.6	2.3	2.2	2.1	1.5
	Industry	45.3+	40.6	37.6	34.8	32.5	27.2	25.9
	Service	51.4+	56.7	59.8	62.9	66.0	70.0	72.3

Notes:

* data is for 1989; ** data is for 1996; + data is for 1969.

Sources: OECD (1984b); OECD (2002a).

In both Germany and Switzerland, industrial decline started at the beginning of the 1970s. Whereas the Swiss employment structure underwent a rather rapid tertiarization process, Germany kept a sizeable manufacturing sector until the end of the 1990s. The marking feature in Sweden was the very massive expansion of employment in social and personal services over the 1960s and, above all, the 1970. In comparison, France's economic trajectory was marked by a slow but gradual shrinking of the industrial sector that contrasts with Britain's rather dramatic process of de-industrialisation: In the four years from 1980 to 1983 coinciding with Margaret Thatcher's first term of office, employment in manufacturing dwindled from 7 to 5.7 millions (OECD, 2000, 278). Yet between 1977 and 1986, industrial employment decline was pronounced throughout Western Europe,

particularly affecting the metal, clothing and textile industries and the coal, iron and steel sectors (OECD, 1989, 166). Data on the occupational mix of employment show that the increase in the service sector implies a real reduction in the number of jobs involving the direct production of goods relative to the number of jobs involving service-type activities (Tscherter, 1994; OECD, 2000, 82). Thus, the practice of goods-producing firms to *outsource services* accounts for only a very small part of growth in the service sector. In fact, the shift towards services appears to be accompanied by a real occupational change towards less blue-collar and more white-collar jobs, and this within the service *as well as* the goods-producing sector (Singelmann and Tienda, 1985, 62; OECD, 2000, 82).

These features of service expansion bring about a series of implications for stratification. Most importantly for class theory, the rise of service jobs both within the tertiary and the secondary sector calls into question the distinction between manual and non-manual occupations. Already in the middle of the 1980s, the relevance of the manual-/non-manual divide had been questioned in the light of the decrease of traditional industrial occupations and the expansion of service jobs (Marshall [et al.], 1985, 269). This ongoing decline of the three "m's, the "male manual manufacturing worker" is intimately linked to an evolution which further adds to the theoretical opacity of a hierarchical manual/non-manual divide: The massive inflow of women into Western European labour markets.

3.2 The increased female participation in paid employment

In the course of the last three to four decades, women's employment has grown very significantly in all Western European societies. As is shown in table 2, between 1970 and 2000, female participation rates increased in the five selected countries by at least 14 (Germany) and at most 18 percentage points (Switzerland). Whereas Britain experienced a slow expansion of women in the workforce, Swedish labour market feminization took already place during the decade of the 1970s, coinciding with welfare state expansion and the proliferation of social services. Swiss female employment stagnated until the beginning of the 1980s but grew all the more rapidly during the 1990s, increasing its share from little more than a third in 1980 to almost half of total workforce in 2000. Female labour force participation remains somewhat lower in Germany and France than in the other three countries, a finding that reflects the differences in service employment for Germany and the lower overall workforce participation for France.

The rise of female employment is intimately linked with the diffusion of part-time work. Hence, if data on part-time employment is integrated into our comparison, the differences between the countries become somewhat smaller.²

² In 2000, the share of women working less than 30 hours per week was larger in Switzerland (45%) and Britain (41%) than in Germany (34%) and above all France (24%) and Sweden (21%) (OECD 2002a).

Female part-time employment had been the most dynamic factor on Western European labour markets during the 1980s and the early 1990s, accounting for more than 40 per cent of total employment growth in the European Union (Lehndorff, 1998, 571). Yet as female full-time was also responsible for a third of the increase in jobs during this period, the phenomenon of workforce feminization cannot be reduced to the expansion of part-time work.

Table 2: Female participation rates and women as share of total labour force (in %)

Country		1970	1975	1980	1985	1990	1995	2000
France	(a)	48.5	51.1	54.4	56.0	57.8	59.9	63.1
	(b)	(35.9)	(37.6)	(39.5)	(42.0)	(43.0)	(44.6)	(45.4)
Germany	(a)	48.1	49.8	52.8	51.9	56.7	61.6	64.0
	(b)	(36.6)	(38.0)	(39.2)	(39.4)	(40.6)	(42.5)	(43.9)
Sweden	(a)	59.4	67.6	74.1	78.3	80.9	75.9	75.0
	(b)	(39.4)	(42.3)	(45.0)	(47.0)	(48.0)	(48.3)	(47.9)
Switzerland	(a)	52.1	49.6	54.1	56.3	65.7	67.8	70.7
	(b)	(33.4)	(34.2)	(36.2)	(36.9)	(43.7)	(44.7)	(46.5)
United Kingdom	(a)	50.8	55.3	58.3	61.4	66.5	66.2	67.7
	(b)	(36.3)	(38.7)	(40.2)	(41.9)	(43.3)	(44.9)	(45.0)

Notes:

- (a) Women in paid employment as part of all women aged 15–64 (in per cent),
 (b) In parenthesis, women in paid employment as part of the total labour force (in per cent).

Sources: OECD (1984b); OECD (2002a).

A series of elements are invoked to explain the advance of women's employment. On the supply side, push factors such as rising levels of education, provision of collective social services and emancipatory steps towards equal rights have stimulated female commitment to labour market participation (Crompton, 1998, 85; Gallie [et al.], 1998, 11). Moreover, a (timid) move away from the male breadwinner model and an increase in the number of divorces has lead, among others, to a substantial shortening of the period during which married women remain out of the workplace while having children (Lewis, 1993, 6). On the demand side, the dominant pull factor appears to be service expansion. Through the integration of household activities into the market process and state expenditure in education and public health, the rise of the service sector has provided large job opportunities for women over the last 30 years (Blossfeld, 1987, 93; Charles, 2000). Thus, demand and supply in (heavily female) service employment are mutually reinforcing. Welfare state expansion has also provided large job opportunities for those women

already in employment but coming from dying industries. To take an example from Norway, 45 per cent of women who worked in the textile industry in 1970 were employed in the welfare state ten years later (Kolberg and Kolstad, 1993, 60).

How this joint action of tertiarisation and feminization has transformed the workforces of the countries under study is shown in table 3. In 1970, the dominant category in the labour market were men working in the industry: In all five countries, their share amounted to about a third of total employment. Thirty years later, it has shrunk to 26 per cent in Germany and to a mere 20 per cent in Britain, France, Sweden and Switzerland. The decrease of male industrial jobs stands in a sharp contrast to the growth of female service employment: Accounting for only 20 per cent in the early 1970s (with the notable exception of Sweden), almost two out of five jobs were held by women employed in the service sector three decades later.

Table 3: The share of male industrial and female service jobs in total employment

Country	Male employment in industrialsector as % of total employment				Female employment in servicesector as % of total employment			
	1970	1980	1990	2000	1970	1980	1990	2000
France	35.2	29.8	23.2*	18.5**	24.5	30.1	34.6*	39.9**
Germany	36.6	32.4	29.7	25.5	19.4	25.4	29.4	35.0
Sweden	30.7	24.9	22.3	19.1	29.8	36.3	40.4	41.8
Switzerland	34.7	29.8	27.2	20.7	20.9	26.0	28.7	35.0
United Kingdom	34.1+	28.6	24.8	19.8	24.1+	30.6	35.3	39.3

Notes:

* Data is for 1989; ** data includes wage-earners only; + data is for 1969.

Sources: OECD (1984); OECD (1998); OECD (2002b).

Table 3 reflects the clear-cut image of industrially segregated labour markets. Crouch (1999, 113) uses the term of a “bicephalously gendered employment structure”, distinguishing between two dominant employment sectors, heavily male-dominated manufacturing on the one hand and female-biased social services on the other. In 2000, the industries continued to be a predominantly male sector at a ratio of at least 3,2:1 (Germany) and at most 3,8:1 (Britain). Simultaneously, women exceeded men in service employment by between 16 (Britain) and 34 per cent (Sweden) (OECD, 2002b).

For stratification theory, the on-going feminization of the labour force has a series of implications. Firstly, it weakens the case for the conventional view of class that privileges the household over the individual as the appropriate unit of analysis.³ At least in work-centred research settings, the conventional approach does not seem suitable to illuminate the issues under study for the simple reason that men's distribution over the occupational structure does not reflect women's distribution. Expressed differently, results found for men are unlikely to be representative for the labour market experience of women. Moreover, the choice of the unit of analysis has a substantial impact on the class schema: Knowing that in 2000 between 80 (Germany) and 87 per cent (Britain, Sweden) of employed women were working in the services (OECD, 2002b), division lines typical for male manufacturing work are not of great use to discriminate between female jobs. We will start out our discussion of the Goldthorpe schema with this issue.

4 Reassessing the Goldthorpe schema

4.1 Integrating women into a male class schema

For quite some time, current class schemes have been criticized for being concerned too exclusively with the male occupational system, making their use for female employees problematic (Dale, [et al.], 1985, 388). Critics have suggested that it is primarily employment conditions of men that Erikson and Goldthorpe have in mind when constructing their classes (Crompton, 1998, 95). Their main reproach focuses on the fact that the Goldthorpe schema displays a high degree of differentiation between occupations dominated by men but is relatively insensitive to distinctions between jobs in which women are in a majority.

When analysing empirically the schema's construct validity, Evans (1996, 222) concludes that the Goldthorpe schema explains less of the variance in the jobs characteristics among women than men. He thereby reiterates his earlier finding that "women's" jobs are not likely to be as easily summarized by the Goldthorpe (or any other schema) as are "men's" (Evans, 1992, 229). However, Evans (1996) notes that the difference in variance explained is not dramatic and furthermore stems directly from the pronounced *clustering* of women in one class, class III which comprises routine non-manual employees. In fact, in the early 1980s in Britain, 39 per cent of women but only 6 per cent of men were allocated to these routine clerical, service and sales occupations of class III (Marshall [et al.], 1988, 74). Ten years later, women continue to cluster heavily in class III: 40 per cent of women are classified as "routine non-manual" in Britain, whereas the same class III comprises even 49 per cent of female employees in France and

3 See on this debate: Erikson, 1984; Goldthorpe, 1983; Heath and Britten, 1984; Marshall [et al.], 1995; Sørensen, 1994.

Germany (Brauns [et al.], 1997, 33–34).⁴ If one further adds those women found in the semi-professions (class II), more than two thirds of the female labour force of Britain, France and Germany concentrate in only two out of seven classes (Brauns [et al.], 1997). Two very different explanations are offered for this phenomenon. On the one hand, the crowding of women into such a small number of classes is seen as proving the inadequacy of the Goldthorpe class schema for female employment (Crompton, 1998). On the other hand, the clustering is considered as accurately reflecting the reality of Western European labour markets that are segregated along gender-lines (Marshall [et al.], 1995).⁵

Goldthorpe's advocates are not wrong in emphasizing that sex-typing and patriarchal exclusion contribute towards segregated labour market outcomes as mirrored by the class schema. Still, the critiques cannot be dismissed all too easily. The Goldthorpe schema differentiates very precisely between typical male occupations in manufacturing, distinguishing lower-grade technicians and supervisors (V) from skilled manual (VI) and unskilled manual workers (VII). Yet at the same time, the class embracing typical female occupations in services (III) is a black box: A blurred grouping that comprises a wide range of office, sales, and service tasks: “A class of low ‘classness’” (Evans and Mills, 1998, 97).

In the early 1980s, Goldthorpe had tried to remedy for the low internal consistency of class III when applied to women by subdividing it into IIIa and IIIb. The aim was to isolate in class IIIb a series of very low-skill positions in sales and service occupations which are typically held by women: ‘The subdivision of class III into IIIa and IIIb was prompted by the application of the schema in studies of women’s mobility, and is used only in analysis where women are involved’ (Erikson and Goldthorpe, 1992, 44). While this distinction of category IIIb has doubtlessly improved the analytical use of the Goldthorpe schema, it has at the same time created additional complexity and potential for substantial disagreement. First of all, the schema has to be modified depending on whether it is applied to men or to women. In the use that Erikson and Goldthorpe (1992, 241) make of class IIIb, this category is specifically devised for women and seems to imply a different employment relationship for female than for male workers. In analyses restricted to men, class III remains undivided. This practice is insofar problematic as it confuses aspects of occupational class with aspects of sex-segregation. Moreover, in research, the use of the full 11-class version of the Goldthorpe schema is – due to often limited-sized data sets – the exception, not the rule. When collapsed versions of the schema are used, controversies inflame over the question whether incumbents of class IIIb are to be grouped with other intermediate non-manual

4 Data are only for women aged between 25 and 44 years.

5 Marshall [et al.], (1995, 2) note in this respect: “Critics of the conventional view seem to want to argue both that sex discrimination in employment constrains women into lower-level jobs and grades, and that any classificatory device that reflects this oppression is somehow inadequate and sexist.”

employees (e. g. Evans and Mills, 1998, 91; Buchmann and Sacchi, 1998) or with the unskilled manual workers of class VII (e. g. Gallie, 1996; Marshall [et al.], 1995). Hence, the issue of the correct location of class IIIb when collapsed leads up to the question of the appropriate *hierarchical setting* of routine non-manual workers within the class schema.

4.2 The problem of fitting women into a hierarchical setting

Erikson and Goldthorpe repeatedly emphasized that classes cannot be consistently ordered on any single dimension because the differences may be ones of “kind” as well as “levels”. Even so, they recognize that “a threefold hierarchical division of the schema (...) seems well founded” (Erikson and Goldthorpe, 1992, 46) and that “broad contrasts can still be made between what might be described as ‘more advantaged’ and ‘less advantaged’ classes” (Goldthorpe, 2000, 166). The empirical findings made by Evans (1992, 227) more than confirm these broad contrasts: “Our analysis indicates that the divisions between employee classes in the Goldthorpe schema are hierarchical.” In the same vein, Prandy (2000, 250) wishes to explain the similarity between results produced by the continuous Cambridge scale and the Goldthorpe schema with the “major hierarchical component in the Goldthorpe class schema”. Questions about hierarchy must, at least implicitly, also be answered when constructing Erikson’s “dominance order”; namely when comparing the work position of both spouses in order to derive the unitary family class from that partner with the higher level of labour market involvement (Erikson, 1984; Goldthorpe, 1984, 497). In his original contribution, Erikson (1984, 504–5) specified the three dimensions on which the dominance order of occupations is built:

- 1) categories of higher qualifications dominate categories of lower
- 2) skills being equal, non-manual categories dominate manual categories
- 3) self-employed people dominate employed people

From this listing emerges the rather clear-cut hierarchical ordering underlying the Goldthorpe schema. What is of interest in the context of our study is the fact that – skills being equal – the “*manuality*” of work appears to differentiate vertically within the class structure. It is here that a problem arises with hierarchy: While the vertical dimension may be broadly in line with male employment of the manufacturing sector, it does not seem adequate for service employment in general and women in particular. This becomes clear when the internal composition of class IIIb is looked at more closely. It reveals, as Erikson and Goldthorpe (1992, 241) readily admit, “occupations which in terms of their characteristic employment relations would seem to entail straight-forward wage-labour”. Focusing on women, Heath and Britten (1984, 478) provide a similar description of Goldthorpe’s class

III: “There will be sizeable components of personal service workers whose work and market situation we had never supposed to be other than ‘proletarian’”. In terms of coverage with sick pay or pension schemes, sales and personal service workers are in no respect better off than semi-skilled or unskilled manual workers. Moreover, in terms of level of pay, incumbents of class III seem to fare substantially worse than manual workers of classes VI and VII (Heath and Britten, 1984; Esping-Andersen [et al.], 1993; Evans and Mills, 1998, 99). It appears thus highly questionable whether routine non-manual occupations are defined by a more advantaged employment relationship than manual occupations. According to Crouch (1999, 165), there are no grounds for regarding the lower levels of the non-manual hierarchy as somewhat superior to manual work.

But why then are routine non-manual employees in the Goldthorpe schema allocated to an intermediate setting which prevails over the class position of manual workers? The response lies in the persisting attraction of the manual/non-manual divide as a class boundary. However, the divide’s relevance as regards women’s employment has been widely criticized for over two decades. Interestingly, Goldthorpe (1983, 480) himself relativized the importance of the manual/non-manual divide for women. In a short passage, he explained the *raison d’être* of the manual/non-manual divide:

From the standpoint of class analysis, the distinction between manual and non-manual work is not in itself of any great significance. So far as men are concerned, this distinction is of value as an indicator of class position because of the fact that it is quite closely correlated with differences in market and work situations (...). (Goldthorpe, 1983, 480; emphasis in the text)

Thus, the manual/non-manual divide may well be inadequate for female employment. Yet according to Goldthorpe, it appears to keep its salience in respect with men. This argument shall be discussed more in detail next.

4.3 The difficulty of keeping blue-collars and white-collars apart

In industrial societies dominated by manufacturing, the manual/non-manual divide has the merit of conveniently separating the working from the middle class. Not surprisingly, it has been general custom in (non-Marxist) post-war sociology to draw the principal class boundary between blue-collar workers doing manual work and white-collar employees engaged in office, sales or service activities (Myles and Turegun, 1994, 116). We have argued that it is clearly of very limited use in the case of female employment. The same issue is more ambiguous in respect with male employment. When separating professional and managerial positions defined by a service relationship from wage-earning manual occupations associated

with the labour contract typical of the working class, Erikson and Goldthorpe's (1992, 44) draw attention to the fact that this distinction is equally reflected in everyday language:

We find it of interest and significance that something close to this division receives widespread linguistic recognition: for example, in the distinction made in English between 'staff' and 'workers'; in French between cadres or employés and ouvriers; in German, between Beamte or Angestellte and Arbeiter; or in Swedish between tjänstemän (literally, 'service men') and arbetare.. (Erikson and Goldthorpe, 1992, 42)

However clear the distinction between a service relationship and a labour contract may be on a theoretical level, it is in the linguistic use quoted by Erikson and Goldthorpe that the difficulties arise. Arguably, the distinction between white-collar employees (*Angestellte*) and manual workers (*Arbeiter*) is nowhere more deeply rooted than in Germany where it is intimately linked with the institutional differences introduced by Bismarck's welfare insurance system (Kocka, 1981). Yet Müller and Noll (1996, 11) note for Germany that "it has become clear over the last years that the boundaries between a 'worker status' and a 'employee status' are increasingly whittling away" [our translation]. As a consequence, they argue that the distinction between these two categories stemming from the social insurance system has lost much of its sociological relevance. Likewise, Kern (1998, 119) stresses the homogenisation process of the labour force in manufacturing. In fully automated industrial complexes, there remain very few positions that can be occupied by unskilled workers. The introduction of new technologies has thus upgraded the industrial workforce and led to a decrease in the social distance between white collar employees and up-skilled blue collar workers. In other words, the hierarchical advantage of clerical employees over industrial workers has gradually eroded.

In everyday economic activity, this growing similarity between lower grade employees and blue-collar workers is responsible for a series of practical problems. Within the firm, the assignment of employee or worker status to new semi-skilled recruits becomes for personnel divisions an increasingly difficult task (or sterile task, since without practical relevance). Similarly, outside the firm, traditional blue-collar trade unions organizing "workers" as opposed to "employees" struggle more and more to identify the categories to which collective bargaining applies. As Sainsbury (1987, 508) puts it, the presence of various types of "service workers" and "low level salaried employees" have created "a twilight zone between the working and the middle classes".

Erikson and Goldthorpe have not ignored the blurring between the once rather clearly separated categories of non-manual employees and manual workers. In a short passage, they specify that their use of the manual/non-manual divide

must be understood in the context of the time-period to which their data apply: 'Several decades back from the mid-1970s'. However, changes in both size and composition of the workforce since the 1970s appear to have rendered the hierarchical ordering of occupations along the manual/non-manual boundary ambiguous. Intimately linked with the labour market trends discussed earlier, the first of these changes is of a *quantitative kind* and relates to the decline of manual workers, both through the work-life and across cohorts in Western European societies (Gershuny, 1993; Blossfeld [et al.], 1993). The stereotypical blue-collar worker "as he emerges from the pages of the history of industrial capitalism" (Myles and Turegun, 1996, 116) is being reduced to a small minority under the influence of technological change: "In manual jobs, new technologies continue the long-standing automation of the work of assemblers, labourers, packers and other member of the subcraft industrial workforce" (OECD, 1988, 188). At the same time, even in labour markets defined by a high degree of automation and a predominant service sector, low-skilled occupations and less advantaged work positions do not disappear. Sales assistants, waiters and cooks in fast-food outlets, routine security guards, call centre employees, assistant nurses or child care workers do not seem to hold jobs to which attaches a particularly favourable employment relationship – this although they are all employed in occupations that, commonly, are neither considered to be manual nor blue-collar and could, in the more precise use of French or German, hardly be qualified as *ouvriers* or *Arbeiter*. In short, these employees are in the awkward hierarchical setting of Goldthorpe's intermediate class III.

The relative opacity of the manual/non-manual divide is, however, not solely reducible to this category. Under the influence of automation, manual manufacturing work has equally undergone a *qualitative change* of skill upgrading. In an empirical analysis of the blue-collar/white-collar divide, Gallie (1996) re-examines whether the spread of new technologies has undercut the differences in the employment relationship of lower non-manual and manual workers in Britain. The underlying hypothesis suggests that automation improves the working conditions of the latter as compared to the former. Gallie (1996, 471) finds evidence "that the spread of new technologies has been accompanied by significant areas of convergence in the work and labour market situations of lower non-manual and manual employees". He therein confirms the findings made for Germany by Kern and Schumann (see Kern, 1998).

So far, we have argued that simultaneous growth in women's paid work and in service sector employment have rendered the class structure both more heterogeneous and more opaque, thereby undermining some of the divisions made in the Goldthorpe schema. However, we have not presented any elements remedying what we consider shortcomings. An attempt in this direction shall be outlined in the following section.

5 Elements for the construction of a modified class schema

5.1 Educational expansion and the middle class

As a starting point for our reflection about more clear-cut class divisions let us present a third labour market trend that has been deliberately left out until now: *Massive educational expansion and occupational upgrading*. A look on statistics exhibits the extent of this process. Between 1960 and the mid-1990s university population has expanded by a ratio of 4,3 in Britain and Switzerland, by 5,6 in Germany, and even by 6,6 in France and 6,8 in Sweden (Mitchell, 1998). Even bigger gains were made below the academically-oriented university level in tertiary degrees with a vocational orientation (Brauns [et al.], 1997).

This overall increase in educational attainment – and its partial translation into an upgraded occupational structure⁶ – is closely related both to the gender- and the sector-shift in employment. Firstly, the catch-up process of women in the labour market has been fostered by the female gains in educational attainment relative to men (Blossfeld, 1987, 101). Secondly, educational expansion has both stimulated and been stimulated by the tertiarization of employment: As the service sector – and in particular the welfare state – rely far less on low-education work than the goods-producing sector, the shift towards services has increased the demand for higher education (OECD, 2000). As a consequence, educational upskilling, welfare state expansion and tertiarization have reduced the numerical strength of production workers and promoted the growth of managerial and professional occupations. The combined result is to tilt the stratification order towards the salaried middle class and to promote simultaneously greater heterogeneity within its ranks.

In this context, Goldthorpe's concept of the service class as a *unitary grouping* has been challenged by authors of different backgrounds (Lamont, 1987; Kriesi, 1989; Savage [et al.], 1992). Arguing exclusively from the *employer's perspective*, Goldthorpe is blamed to ignore differences that may exist between increasingly heterogeneous categories within the service class when looked at from the *employee's perspective* (Müller, 1999, 143). However, contrary to Wright (1985) or Runciman (1990), we do not believe the decisive criteria for these horizontal differences to be diverse assets or sources of economic power. In our view, it appears more fruitful to draw on contributions made by authors such as Kriesi (1989), Esping-Andersen (1993), Gallie [et al.], (1998) or Müller (1999). In their attempt to capture shifts in stratification, these authors put a heavy emphasis on the nature of employees' work experience, their work role and their insertion into the division of labour. Whether conceptualized as a threefold antagonism within the salaried middle class (Kriesi, 1989 and 1998; Müller, 1999), as an opposition between a

6 See for instance Gallie [et al.] (1998) or Brauns [et al.] (1997).

fordist and a post-industrial class hierarchy (Esping-Andersen, 1993) or as a contrast between occupations involving “people-work” as opposed to “manual work” (Gallie [et al.], 1998), the decisive element of horizontal differentiation is in all three cases *the work logic* in which employees evolve.

These differences in the daily work experience and the insertion into the division of labour determine, at the level of the middle classes, opposing interests and loyalties, and are reflected in differences in political behaviour. Empirical research shows that in Germany, the Netherlands and Switzerland, managers and administrators clearly lean towards the right, whereas professionals in the social and cultural services strongly favour the left. Technical experts take an intermediate stance (Kriesi, 1998; Müller, 1999; see also Brooks and Manza, 1997 for the U. S.). Unlike assets, we argue that the criterion of *differences in the work logics* is not limited to individuals of the salaried middle class and thus permits to extend the horizontal division to the “twilight zone” of routine employees and blue-collar workers.

5.2 Extending the horizontal division to all wage earners

In contrast to what much of the class debate suggests, the work settings of the craft workers or the assembly-line workers are representative for only a small part of the male labour force. Given the high level of segregation in the employment structure, much of the growth of female employment in recent decades has been noticed in very different sectors of the labour market – namely in the social and personal services. As Gallie [et al.] (1998, 30) note in a large empirical study on the employment relationship, this has wide-ranging consequences for the work logic: “The very nature of much work in the services is radically different, involving primarily relationships with people and requiring social rather than manual skills.” Hence, unlike clerical or manual jobs, a large part of service work implies the direct handling of individuals’ needs through face-to-face interaction. Not surprisingly, women in general and (largely female) welfare state personnel in particular are heavily overrepresented in this group of employees. Moreover, ‘people-work’ is not limited to qualified employees. Gallie [et al.] (1998, 52) find that a substantial proportion of semi- and unskilled workers are equally engaged in work involving caring for other people or directly responding to clients’ needs.

By integrating the notion of *interpersonal service work* into the cleavages highlighted for the salaried middle class, we are able to distinguish three basically different work logics: *a technical work logic*, *an organizational work logic* and *an interpersonal work logic*. Depending on whether an occupation involves the administration of organizational power, the handling of technical expertise and manual tasks or the face-to-face dealing with people’s personal demands, the work logic and accordingly the primary orientation differ in fundamental ways. In table 4, we show the four dimensions along which the different work logics are

separated: (a) the setting of the work process; (b) skill requirements; (c) relations of authority; (d) primary orientation.

Table 4: The conceptual dimensions at the basis of the different work logics

	Technical work logic	Organizational work logic	Interpersonal work logic
Setting of work process	Work process determined by technical parameters	Bureaucratic division of labour	Service setting based on face-to-face exchange
Skill requirements	Scientific expertise for higher grades, crafts and manual skills for lower grades	Coordination and control for higher grades, clerical skills for lower grades	Expertise and social skills for higher grades, social skills for lower grades
Relations of authority	Working outside the lines of command for higher grades, working within a clear-cut command structure for lower grades	Working within a bureaucratic command structure that corresponds to a career sequence	Working largely outside the lines of command
Primary orientation	Orientation towards the professional community or group of trades	Primary orientation towards the employing organization	Orientation towards the client, patient or petitioner

This triple distinction of work logics is of a somewhat schematic nature. Yet besides substituting misleading hierarchical divisions such as the “blue-collar/white-collar” or “manual/non-manual divide” by a horizontal distinction, it appears to overlap rather closely with empirically observable cleavages in the employment structure. Hence at the level of the *middle classes*, it reflects central differences between categories such as technicians (e. g. computer assistants and safety inspectors), associate managers (e. g. junior financial managers and customs officials) and socio-cultural semi-professionals (e. g. primary school teachers and physiotherapists) who otherwise, on the basis of similar advantages attached to their employment relationships, are to be placed into the same class.⁷ Let’s briefly outline the nature of these differences. Being part of the bureaucratic division of work tasks, the *associate manager* depends on his ability to coordinate and control others, while evolving himself in a system of authority relations that frequently corresponds to a career sequence. Through his (present or future) participation in organizational power, he is expected to show a high level of loyalty towards the employing organization. In contrast, the *socio-cultural semi-professional* is primarily dependent on social skills (and expertise) and evolves in a autonomous work

⁷ In the Goldthorpe class schema, these occupations are all allocated into “service class II” of lower grade professionals, administrators, and officials.

setting that practically lies outside the lines of command. As he depends on the cooperation of his “clients” (students, patients or petitioners) in providing his services, he is likely to advocate their interests against organizational interference. Finally, the *technician* is in an intermediate position. His daily work experience makes him more likely to direct his primary orientation towards his professional community and its body of knowledge than the organization. At the same time, the technical nature of his work tasks provides more potential for the division of labour than is the case in the interpersonal service logic.

At the level of the *working classes*, the same criteria of work logic captures the horizontal differences between categories that in terms of hierarchy are not easily separated. Without having to make reference to a collar or a manual/non-manual divide, we are able to distinguish, for instance, the machine operator (or the bricklayer) in the technical work logic from the secretary (or mail sorting clerk) in the organizational work logic, and from the assistant nurse (or home helper) in the interpersonal work logic.

5.3 A class schema based on work logic and marketable skills

Based on the difference in employment status, we distinguish a forth and last work logic comprising employers and the self-employed: The independent work logic. This leaves us with four horizontally distinct work logics but with no clearly specified vertical criterion. With regard to this missing dimension of hierarchy, we follow Goldthorpe’s line of reasoning that vertical stratification is due to different degrees of advantage attached to the employment relationship. However, we wish to go a step further and to argue that the degree of advantage attached to an employment relationship is itself a direct consequence of an individual’s *endowment with marketable skills*. In other words, differences in the employment relationship reflect differences between employees’ endowments with specific human capital. Hence, the more marketable skills an employee possesses, the more important is the incentive system that the employer must set up in order to get maximal productivity out of his employee (Goldthorpe, 2000, 213).⁸ Therefore, hierarchical differentiation in our schema operates through the notion of marketable skills, a concept that is more easily operationalized than the large and rather blurry concept of employment relationship.

Table 5 exhibits the class schema resulting from the combination of the two dimensions of work logic and marketable skills. In the most detailed version, we obtain a 17-class schema that can be collapsed into a 8-class schema as indicated by the bold frames. For each class, we have listed three distinctive occupations.

⁸ Besides the dimension of skill specificity, Goldthorpe (2000, chap. 10) identifies as second dimensions as being decisive for the shaping of differences in the employment relationship: the difficulty involved in monitoring the work performance. We do not go further into this second dimension as it appears in our view heavily correlated with the first dimension of skill specificity.

Table 5: The 17-class (and collapsed 8-class) schema based on differences in the work logic and in marketable skills

Self-employed		Employees		marketable skills	
Independent work logic		Organizational work logic		Interpersonal service work logic	
1. Large employers (> 9)	2. Self-employed professionals	5. Technical experts	10. Higher-grade managers	14. Socio-cultural professionals	
Firm owners	Lawyers	Mechanical engineers	Business administrators	University teachers	
Hotel owners	Accountants	Computing professionals	Financial managers	Medical doctors	
Salesmen	Medical doctors	Architects	Marketing managers	Journalists	
3. Small proprietors, artisans, with employees (< 9)					
Restaurant owners	6. Technicians		11. Associate managers	15. Socio-cultural semi-professionals	
Farmers	Electrical technicians		Managers in small firms	Primary school teachers	
Garage owners	Computer equipment operators		Tax officials	Registered nurses	
4. Small proprietors, artisans, without employees	Safety inspectors		Bookkeepers	Social workers	
Shopkeepers	7. Skilled crafts				
Hairdressers		12. Skilled office		16. Skilled service	
Lorry drivers				Policemen	
	Machinery mechanics			Cooks	
	Toolmakers			Children's nurses	
	Electricians				
		8. Routine operatives	13. Routine office	17. Routine service	
		9. Routine agriculture			
	Assemblers			Mail sorting clerks	
	Machine operators			Receptionists	
	Freight handlers			Messengers	

Note: Continuous lines indicate how classes are to be collapsed into the 8-class version.

The horizontal boundaries made in the schema correspond, to a degree, to divisions made by Blossfeld (1987) between production, administration and services. Likewise, the distinction between an organizational and an interpersonal work logic reiterates, to some extent, the division made in the Swiss Socio-Professional Categories (CSP-CH) between jobs in producer services and jobs in social and personal services (Joye and Schuler, 1995; see also Levy [et al.], 1997).

The class device displayed in table 5 may discriminate less well within male industrial employment. But we believe it to be better prepared to account for the labour market trends of expanding services, increasing female participation rates and occupational sex-segregation. Furthermore, we expect it to grasp cleavages stemming from employment growth in the welfare state and, more generally, to differentiate for increasingly heterogeneous middle class fractions. Yet these expectations remain a vague conjecture as long as the schema has not been tested empirically.

6 Conclusion

In our discussion of recent trends in the labour market, we have pursued two objectives. On the one hand, we have tried to highlight the extent of change that has taken place in labour markets over the last 30 years. We have thus recalled that the contemporary employment structure in Western Europe is dominated by large service sectors where women constitute a majority. This well-known finding has led us to raise a series of issues which are not easily dealt with in the Goldthorpe schema. We have argued that while the Golthorpe schema discriminates very well between occupational groups dominated by men, much of female employment remains a black box, allocated either to class III of intermediate non-manual occupations or to class IIIb of lower grade non-manual employees. Moreover, tertiarization and feminization have, together with technological change, equally left their marks on male employment. Through the simultaneous process of skill-upgrading and industrial decline, male manual workers have undergone both quantitative and qualitative changes. One of the consequences is the increasing assimilation in the employment relationships of blue-collar workers and lower grade white-collar employees. We have argued that this trend has considerably weakenend the relevance of the manual/non-manual divide in the Goldthorpe schema as a hierarchical class boundary.

As a consequence of our critiques, we have proposed an alternative class device that partly shift its focus from vertical divides to horizontal cleavages, thus separating employees and workers that share an equally advantaged or disadvantaged labour market position but evolve nonetheless in a fundamentally different work setting. In our view, the criterion that allows to operate such a division is the

difference in the work logic. However, whether this class device based on both differences in employment relationships and in work logic contributes to the understanding of labour market stratification remains an open question as long as it has not been resolved with the use of data. This task will be tackled next.

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