

# The context of industrial relations in Great Britain and West Germany

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**Malcolm Warner and Arndt Sorge compare selected manufacturing units matched in products, technology, the task environment, dependence, location and size in Britain and West Germany. Despite the near-identical character of overall tasks according to matched criteria, the analysis clearly reveals industrial relations and organisational diversity between the two nations.**

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**T**HE goal of this paper is to compare British industrial relations structures with German ones, to provide an explanation for existing national differences, and to obtain guidelines for the further development of organisation theory and research.\* The theoretical back-

\* This is part of a wider study involving three countries. The replication in Britain was carried out by Arndt Sorge and Malcolm Warner. Marc Maurice was one of three researchers responsible for initiating the main French and German programme in which other researchers beyond the authors quoted also collaborated. Research bases were Laboratoire d'économie et de sociologie du travail (LEST), at Aix-en-Provence, for France and Germany; and the Administrative Staff College, Henley, and St. Anthony's College, Oxford, for the British study. Funding was different for the two studies, the original one being arranged by CORDES in France, and that of the British extension by SSRC. All of us gratefully acknowledge the support of both bodies and, in addition, the researchers from Britain express their gratitude to LEST and Marc Maurice for their support and hospitality.

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ground of the study is the controversy about the extent of constraints on organisation structures and, conversely the extent of choice[1]; this controversy is closely linked with methodological arguments about how organisations ought to be studied and with clashes between opposed theoretical orientations[2]. We take the international comparison of organisations in near-alike situations with regard to product, technology, the task environment, dependence, location and size, in that order of importance, as a most appropriate opportunity to test the null hypothesis of the cultural influence on organisation structures. Consequently, the method applied is one of matched-pair comparisons, each pair comprising factories as closely alike as could be found. Pairs of factories producing heavy power engineering fabrications, straight welded tubes, and chemicals were selected for study[3]. French social scientists[4] had originally initiated the study in the early 1970s and initially hoped to cover cultural differences at work in France,

Germany and Italy. They eventually concentrated on the two former countries, and their early work aroused considerable interest among social scientists. A partial British replication was carried out in 1976-77, which matched up its findings with the earlier Franco-German investigation. In this paper, however, we are restricting our discussion only to the British and German data and, specifically, that relating to their industrial relations aspects.

## The research and research findings

In the field investigations, attention was not only given to 'formal' organisations, as revealed on official organisations charts, but also to how these arrangements actually worked in practice and the 'informal' relationships involved. A great deal of time was spent at the plant level and, in most cases, truly on the shop floor. Extended interviews were carried out at all levels with managers, supervisors, foremen and operators, as well as trade union representatives. Contact with head offices was also involved, although this was a very subsidiary aspect of the research.

The progress of the research was helped by the attention of the investigators in focusing on differences at plant level in detail and apparent inter-country variance with a given industrial setting. Would one expect, for a given size-band of plant, holding technology and the product constant, the shape and style of operation to be substantively different?

Were there theoretical grounds for expecting similarities, even if not homogeneity? The empirical evidence from earlier studies has very much directed a great deal of research to that conclusion[5]. Even a commonsense view might have suggested that organisational patterns might well be similar, and differences in productivity might be explained by the better quality of management in this or that country, or by the widely-held belief that managers and/or workers in certain places worked rather harder.

Indeed, one such approach has argued that cultural constraints fall into two broad classes and that these are those seen as 'sociological' and those labelled as 'educational'[6]. Without developing these points further at this stage, it is possible to accommodate this approach with the argument in the preceding paragraph and not expect very great variance in organisational structures and processes or, at least, not in

formal organisation. Or it might be argued that sociological factors might have some bearing on organisation, but that the educational variables might simply be seen as given. It would be rather more difficult to suggest that much inter-country variance might be accounted for by both sociological and educational factors, certainly in countries which were 'advanced societies' and, in fact, neighbours geographically — as opposed to, say, comparing the United States with a country on the road to development like India.

There are, indeed, those who believe in 'convergence'[7] and who would expect factories in, say, Britain and Germany, let alone the United States and India, to be becoming roughly similar. This argument appears to be a forceful one, *prima facie*:

"Whether macro or micro, the most common argument for convergence is the imperative of industrialisation itself. Technology — like the language of mathematics — is universal. By obeying laws of reason and science, men of varying cultural and ideological positions presumably can agree on the best machine design or most desirable production . . ."

"Technology, therefore, exerts a major force towards making work and society more similar wherever industrialisation occurs"[8].

Such is the 'straw-man' generalisation, we shall hold up for criticism. With regard to industrial relations, this convergence thesis has been put forward most prominently by Kerr et al[9]. There are, of course, other rival explanations relating to the relevant variables in question[10].

Data collected in the course of the investigation can be divided into four blocks of variables:

- 1. Shape of organisation:** relative sizes of different components of the workforce, spans of control, numbers of levels in the hierarchy; these variables were measured on the basis of personnel records and organisation charts, supplemented by interviews with personnel officers and managers, to put them in proper perspective.
- 2. Functional differentiation and integration mechanisms:** information on what incumbents of certain, especially selected positions in each nation actually did at work, how they related to superiors, subordinates, and employees at the same level, which kinds of questions were dealt with in which kinds of contacts and encounters; this information was collected in taped, qualitative interviews lasting between half and

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just over an hour; there was no ready-made questionnaire, but an interviewing guideline.

**3. Basic features of the industrial relations system** which were contained in collective agreements, statutory law, and customary practice; texts of agreements and of laws were available, and supplementary and explanatory information was given by personnel officers and employees' representatives.

**4. Processes of education and training:** apprenticeship patterns and other forms of worker training, character of various kinds of courses and qualifications; qualifications from apprenticeship upwards were collected for each employee and, in addition, national systems of training and education were studied in their quantitative and qualitative aspects.

We conjectured that there are consistent national differences of organisation which cannot be explained by the contingency variables commonly used, for example, those of technology, product, size etc.[11]. Cultural differences, which are used synonymously with national differences throughout this study might, however, be explained on the basis of different processes of education and training. These might also be shown to be related to industrial relations, we further supposed. They would, therefore, have to be considered as a social sphere with very little autonomy, since they are closely linked to systems of education and training and of dividing industrial relations in manufacturing units.

It is not intended to fully cover industrial relations in the factories compared; in particular, the description of varying national institutional arrangements would not be feasible here. However, good comparative literature is available[12]. It seems more sensible to compare those features of industrial relations which might conceivably be linked to differences in organisational shape and related mechanisms.

It is generally well-known that industrial relations in Germany are regulated by law to a much greater extent than in Britain. In the factories studied, we found that this difference shows itself again and again. In Britain, they were covered, first of all, by local collective agreements and established union-management informal consultative practices, and national agreements in the engineering and chemical industries were of little importance by

comparison, providing only for minimum wages, holiday guideline etc., and some procedural statement. Most of industrial relations matters were dealt with locally, within the limitations of the Social Contract between the TUC, CBI and the Government, applicable at the time of study.

In Germany, collective agreements regulating wages and conditions of employment are usually concluded by industry and region. In contrast to Britain, they are legally binding and enforceable in a court of law. Very often the agreements do not reflect real wages, as these are frequently bargained for locally, as in Britain. Local bargaining machinery, however, is not contractual, but set up according to the Works Constitution Act. Its primary institutions are works councils, factory general meetings and employee representatives on the supervisory boards of joint stock companies.

In addition, the German factories respectively producing fabrications and tubes are covered by the special provisions applying to the coal and steel producing industries, providing for parity of employees and shareholders' representatives on supervisory boards, and a labour director as a board of management member particularly dependent on the employee vote in the supervisory board, for his appointment. This Montan type of co-determination also brought about a very intricate and strong construction of the personnel administration in the German fabrications and tubes plants going through the different group and company levels.

Basic differences we found between the two countries concerning their institutions and practices then are the following:

### **1. Relations are more centred on the factory level in Britain than in Germany**

Regional or national agreements are not important to the same extent, nor is there an equal amount of company and group level representation, which is very prominent in Germany because of its board structure. Wages, bonuses, conditions of employment, holidays, grievance procedures, manpower policies and other matters are all talked about at the factory level in Britain, whereas in Germany they are also affected by arrangements at higher levels to a more important extent.

### **2. Relations are much more formalised in Germany and are more integrated into national law**

Whereas in the British fabrications and tubes

plants collective agreements and other documents relevant to industrial relations tend to run into not more than 20 pages, the Works Constitution Act in Germany alone is a 100 page document, and it is supplemented by various factory agreements between management and the Works Council. In addition, national and regional collective agreements are again quite sizeable and detailed documents. In the British chemical plant, formalisation is more pronounced than in the other factories, particularly since the factory is larger than the other two and more split into different trades and jobs — but it is still moderate in comparison to the laws and agreements a German personnel department has to know about.

### **3. Employee representation is more union-based in Britain**

The British fabrication and tubes plants are union shops for all practical purposes concerning the works personnel, and this is not much different in the British chemical plant. In Germany, unionisation at the works is also high, particularly in fabrications and tubes, going beyond 90%, compared with the national level of under 40%, but the principal representation mechanisms at the factory level are instituted by law, and cover union members and non-unionised personnel alike. Works councillors are not required to be unionised, but usually are.

Basically one can differentiate between two nationally different ways of establishing a high degree of participation. In Britain, this is achieved through closed shops. De facto union monopolisation of industrial relations on a less formal basis hardly involves the law at all, whereas in Germany matters are very extensively covered by law, and strong participation rights are granted with the force of the law. Union membership is not compulsory for anyone, but of considerable informal importance. Thus, the constraint of the union shop in Britain, in a way, is the functional equivalent of the force of law in Germany. Union shop rules in the British factories were much less controversial with management than the political debate would make it out to be. Usually, it was appreciated that representative spokesmen for the works were made available to management through the closed shops, as long as there was no misuse of it.

### **4. Release from work for representatives is more extensive in Germany, equally the provision of office space and telephones**

In the size range of factories studied in Germany there are 2-5 works councillors who are entirely released from their work to be committed to their council duties. In Britain, shop stewards or other representatives are released as the opportunity demands, and none of them are active in industrial and personnel relations on a full-time basis. Office space provided is, at most, one office and, particularly, secretarial facilities are more generous in Germany.

### **5. Industrial action**

This was rarely to be found in the German factories, but also in the British ones in fabrications and tubes. Only in the British chemical plant had there been a recent dispute and this had been linked with emergent militancy of supervisory staff.

### **6. Representation is much more fragmented in Britain**

Nationally, of course, there are over 180 unions often organised around a single trade in Britain, whereas there are only 16 industrial unions in Germany. Thus, in the factories studied in Germany there usually was only one union represented on the site. In Britain, it was uncommon for all the unions in the factory to negotiate and consult with management jointly. Pay and productivity agreements apply to all hourly paid personnel, but factory level committees on the three British sites were set up separately for particular unions or personnel groups. In the British tubes plant, the main representation body is the Central Committee in which management meets the representatives of the General and Municipal Workers' Union which negotiates for most of the works. Some smaller unions in the factory, however, notably the toolmakers', meet management separately, as do the ASTMS representatives now emerging as spokesmen for supervisory and technical staff; representation of clerical staff is not yet provided for.

In the British chemical plant the workforce had been split into the following common interest groups:

- process and general workers
- craft force
- foremen
- laboratory staff
- administration and services staff
- professional and managerial staff
- senior staff

} works

Industrial relations are organised separately for each of these groups, and only the first four are run by unions from the employees' side. In the

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next two, there are consultative committees for which all the employees elect representatives, and all the senior staff are members of the senior staff conference. Union representation for the foremen and the laboratory staff had only recently emerged. Thus, in all the British factories one tends to find that:

- (a) industrial relations with the works are segmented into major union groups, particularly along the dividing line between craft and general unions,
- (b) staff are again represented separately from the works, and the unionisation of foremen and technicians often goes along with 'teething problems',
- (c) clerical staff are not represented by unions, nor is their representation usually very formal, if existent at all, but it is separate again in any case,
- (d) management staff's interests are mostly articulated directly, and this is organised only in the British chemical factory.

Against this, industrial relations in the German factories appear much more unified. Collective agreements cover both works and staff, but are composed of different wage scales for workers, foremen, technical and commercial employees. Agreements are negotiated in one parcel, although comprehending different wage scales. The lowest jobs in the hierarchies not covered by a collective agreement are those which go by the title of *Betriebsleiter*, i.e. those responsible for a fairly self-contained production plant and process in the factory. Collective agreements thus cover all personnel up to the level of *Meister*, which has to be located somewhere between the British-style foremen and superintendents. In Britain, on the other hand, it was found that employees from foremen upwards were not covered by the same agreements and bargaining machinery as those under them, and such agreements and machinery were of a more recent date, or more informal than in Germany.

The hierarchical area covered by the Works Constitution Act is slightly larger than that of collective agreements, and the Works Council is, in fact, the only local bargaining and consultation agent for both works and staff, but excluding most of management and what would probably be called 'technologists' in Britain, i.e. senior professional employees. Managers only rarely elect representatives; in this selection of firms they do so along with technologists in the German chemical plant to

form a 'spokesmen's committee' (*Sprecherausschuss*).

Employees can elect works councillors in two constituencies, one for works and one for staffs, if the majority of either group wants this. In production sites of the engineering industries, this two-constituencies election is less likely, and the Works Council acts as a whole once it is elected, in any case. Fragmentation of industrial relations is therefore kept at a low level.

The lesser fragmentation of industrial relations in Germany is particularly visible in its hierarchical implications. Employees at different levels are lumped together much more readily than in Britain, for the purpose of common interest representation, and personnel to which the Works Constitution Act applies, i.e. who are represented by the Works Council and can be elected to it, reach into levels for which no formal arrangement of interest representation would usually be made in Britain. In the factories visited, the highest positions still reached by the Works Constitution Act are, in the fabrications and tubes factories, exactly those which are the first ones not covered by collective agreements concluded at the regional-industrial level, whereas in the chemical factory it was the last position still covered by them.

There is thus a similarity between the countries in the chemical industry, where the hierarchical range of the Works Council in Germany is not quite as large as elsewhere, and where a slightly higher degree of fragmentation exists because spokesmen's committees are in operation for all the employees at levels higher than the one mentioned above. The dividing line coincides roughly with that between senior staff and the rest in the British chemical case. Below this line, however, national differences in fragmentation are clearly visible, as shown above.

However, it is also true that a number of employees within the range of the Works Constitution Act do not really feel concerned by it. This often happens outside the chemical industry in positions not covered by collective agreements. The two *Betriebsleiter* positions in the German fabrications and tubes plants mentioned above would be typical examples of an ambivalence originating because a job is just over the collective agreement salary scales, but still within the range of the Works Council. The exact demarcation of managerial employees not concerned by the Act is often an occasion

for disputes between unions and the board of management, and a number of cases have gone to the labour courts. It also was a socio-political topic for discussion and research[13].

Another aspect of organisation structure to be used as a background against which to consider industrial relations is the division of the factory into departments, plant areas and shifts. In all the factories visited in Britain, shop stewards, or others, are invariably elected by those in a certain department, plant and shift. They then meet to form committees or elect higher-order representatives, but they are formally elected and function as the representatives of, for example, the welders in the pressure-vessel shop, the mill operators, or one shift of process operators on a particular plant or group of plants in chemicals. If someone has a complaint, he would take it up with the shop steward he elected for his area and/or shift. Fragmentation, then, has a departmental aspect.

In Germany, departmental fragmentation exists to a lesser extent. Whereas the attachment of shop stewards to departments is formal in Britain, this attachment of works councillors in Germany is purely informal. For once, the order is reversed! Works councillors are elected from lists of candidates, with everyone making his choice from the same lists, except, of course, where there are two constituencies for works and staff. Normally, trade unions or other groups drawing up lists of candidates would try to give a balanced representation to the different departments, but this is achieved only informally. After the election, works councils then usually go by the principle that every member is available to be contacted by every employee. Informally, of course, there would be departmental preferences, but these would be cross-cut by a division of labour on the Council, in such areas as pensions, social activities, safety etc.

In large factories, however, works councils often find an extension closer to the shop floor. This can be arranged informally, or by contract between the firm and the union. One can differentiate between shop stewards (*Gewerkschaftliche Vertrauensleute*) and plant stewards (*Betriebliche Vertrauensleute*). The difference is that the latter are elected by all employees, unionised and non-unionised, while the former are purely union representatives. The German chemical plant is a factory that also operates a system of plant stewards; these function as representatives with regard to

the Plant Superintendent (*Betriebsleiter*), and as link-men between the Works council and the shop floor. Thus, with increasing size and differentiation of the organisation, an element of industrial relations fragmentation is introduced, but it is more informal and more limited to a lower level; the factory level Works Council is still elected by all the employees in one ballot, and the plant stewards would usually go through the Works Council to raise a point at the factory level.

## An interpretative framework

The industrial relations differences which have been described above are concomitant with other variations found in the comparison. These latter concern:

- Mechanisms by which the overall task of the unit is split up into sub-tasks, and these are organisationally integrated;
- Training and career patterns, which are reflected by information on qualifications and training, as well as on the progression of individuals through jobs in the factory.

A 'societal effect' can be seen to operate in the way by which the above traits go hand-in-hand with industrial relations patterns. This is not to say that they can explain all of the inter-cultural variety found. Doubtlessly, other factors are at work too, and both of us had previously stressed the importance of political developments in a country's social history[14]. Therefore, we do not want to put forward monopolistic claims of explanation. We do think, however, that there has been a gross neglect of how industrial work of the same nature can be differently done from one society to another, and how this ties in systematically with industrial relations diversity. This is what we will show.

We postulate interaction between the systems of the above mechanism: training and careers and industrial relations. Traits of the three systems are interpreted as hanging together, so that a change in one system will tend to be paralleled by a corresponding one in the other. On the basis of past and present-day evidence, we do not think that it is feasible to reduce one system to another. Thus, we do not causally explain, as is often done, differences in industrial relations, nor do we see industrial relations patterns as generated in any one direction by patterns in the other two systems.

The degree of 'fragmentation' of industrial relations laterally is the corollary of a corresponding situation concerning worker

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training and careers, and of the differentiation of maintenance from production. It was consistently found that in Britain apprenticeship training centred to a greater extent on maintenance jobs, that production and maintenance activities were more rigidly shut off against each other, and that workers' careers did not straddle the production-maintenance divide to the same extent as in Germany. In Britain, the industrial relations gap between production and maintenance coincided with a qualifications gap between vocational trades and careers; and it was less common to bring these closer together by gearing apprenticeships towards production and assimilating skilled worker and semi-skilled worker training, as happened in Germany, notably through the provision of semi-apprenticeships (Anlernberufe).

The splitting-up of workers' representation along departmental lines in Britain was found related to a lesser extent of trainer by rotation round different jobs in the factory, which was more common in Germany. The departmentalisation of the shop steward system can be interpreted as the corollary of greater demarcation by departments of British units. More training by rotation in the German factories, and the degree to which trades were less specific with regard to production or maintenance departments and activities, can be seen to promote a greater unity of industrial relations, and its focusing on the factory-wide works council, rather than on departmental shop stewards, as was the case in Britain. One might say that the point of reference of workers in Germany was the factory to a greater extent than in Britain, where it was the trade or department.

In British industrial relations, we found there were generally lower cut-off points above which the industrial relations of a segment of the work force were separated from those of employees below. These were found together with two characteristics which set British training and careers, and related mechanisms apart from German ones. First, work in the line of authority was more technically oriented in Germany, i.e. it featured to a greater extent a concern with products and equipment than in Britain, where technical work was more hived off the line of authority and delegated to expert departments. Thus, authority and expertise were more closely linked in Germany, but divested from each other in Britain, where work in the line was more purified down to

managerial, non-technical aspects. Second, the qualifications and careers of technicians, engineers and managers in Germany were noted to be more contiguous and supplementary to those of workers. In the terms of Silvestre[15], there was more of a continuous 'qualificational space' extending from workers up to works managers in Germany, which was founded on the commonly-shared experience of apprenticeships. Professional-practical linkages along the line of authority were thus stronger in Germany, just as between technicians, engineers and workers.

The stronger the technical aspects of line work and the professional links between different parts of the work force, the less are groups of personnel differentiated merely on the grounds of status and authority. This tendency, stronger in Germany than in Britain, can be seen as the corollary of lesser fragmentation of the industrial relations hierarchy and higher cut-off points. It is surely significant that the greater similarity of such fragmentation in the British and German chemical factories coincided neatly with a less continuous 'qualificational-space' and career pattern than was found in the unit and mass production units, in Germany. In the production departments of the German chemical factory there was a high incidence of university trained chemists who were professionally removed from the more works-related foremen and superintendents, similar to what was true in the British factory.

The above can now be seen to be related closely to the lesser 'formalisation' and 'bureaucratisation' (full-time representatives, office space and facilities) of British industrial relations. Where these and corresponding patterns in the other two sub-systems mentioned are more fragmented and decentralised, central facilities and full-time representative activity are less likely. Thus, the differences between Britain and Germany, with regard to formalisation and bureaucratisation, are, at least in part, the other side of the coin as far as such fragmentation is concerned.

It might seem, from the above analysis of industrial relations, that we are giving a privileged position to the division of labour internal to the organisation. This is not our intention, since this kind of analysis, through its focus on processes of qualification and its implications with regard to manpower policies, recruitment, education and technical training, can be followed straight through into the areas of social stratification, as well as the political

and social history of societies. This cannot be done within the confines of this paper, but has been demonstrated elsewhere[16]. At this point, we come full circle and marry up 'micro' and 'macro' perspectives, the environment of organisations and their internal function. In this, we follow the 'societal effect' approach sketched out by Brossard and Maurice[17] and put into practice by Maurice et al[18].

Our results lead us to refute the point of view of industrialism, as maintained in its classical form by Kerr et al[19], that industrial societies are built on the same sort of material base and hence tend to bring forth more and more similar structures. Factories in different countries can be perfectly alike from the points of view of products, technology, size and the task environment and yet bring forth distinctly dissimilar forms of organisation and industrial relations[20]. This has been shown in the French studies quoted above, which ours followed, and it was again recently demonstrated by Gallie[21]. Indeed, one fails to see why industrial societies ought to converge when it was abundantly clear throughout the history of agricultural societies that they did not evolve convergent forms of organisation, although their material base could be just as similar as that of our industrial societies.

This has implications for the direction of future research. The industrial relations literature has acquired a considerable amount of autonomy, insofar as it deals with national industrial relations systems. It is similar, in this, to the state of the art in the sociology of organisations and the management literature. In all these fields, there is a tendency to forget what is the essential thing happening in organisations: work. Similarly, the 'environment' is dealt with in a too unspecific, murky way. These broad themes have been locked into black boxes, to be looked at from a safe distance and with a predilection for generalities. Work has almost become a 'Pandora's Box' which no one dares open. We would therefore argue that scientific advance is only possible by opening these boxes.

This leads on to a reappraisal of constraint and choice[22] as central categories of the sociology of organisations. Instead of being caught between the opposing notions of constraints and free choice, and the related monopolistic claims of conflicting methods of research, we propose a way of studying organisational functional equivalents as parts of the wider context of society. The stress is on

'functional equivalence', since organisations must be seen as artificial things, just as anything made by man. As artifacts, organisations — and products of work — come about, they are dealt with by those who make them, in a way that is quite different from the perspective selected by the social scientist. It is helpful to realise this difference between the social scientist and the practitioner; from this definition of separate roles, it becomes easier to see how they can complement each other by applying their respective skills to organisational development.

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11. More detailed information on the factories studied is contained in the following table. As can be seen, matching with regard to products and technology was quite successful, where as some discrepancies occur in



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the size column, primarily because the comparable British units existing were smaller. The difference, however, was only large in unit production, where economies of scale are negligible. Furthermore, it showed that British units were consistently more differentiated than their German counterparts, so that we would argue that size cannot have had a distorting effect.

**TABLE 1: The firms studied**

|                     | Products   | Size<br>No. of<br>employees |
|---------------------|--|-----------------------------|
| Unit prod.          |  |                             |
| Germany             | Pressure vessels, heat exchangers, heavy protective equipment      | 1700                        |
| Great Britain       | Pressure vessels, boiler drums, pipework, nuclear waste containers | over 700                    |
| Mass prod.          |  |                             |
| Germany             | Straight welded steel tubes  | 800                         |
| Great Britain       | Straight welded steel tubes  | 600                         |
| Cont. process prod. |  |                             |
| Germany             | Chemicals (ethylene, polyethylene, acrylonitrile etc.)             | 2600                        |
| Great Britain       | Chemicals (ethylene, polyethylene, acrylonitrile etc.)             | 2200                        |

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17. See Brossard and Maurice, op. cit.
18. Maurice et al, op. cit.
19. Kerr et al, op. cit.
20. See Maurice, M., Sorge, A. and Warner, M., "Societal Differences in Organising Manufacturing Units", *Organization Studies*, Vol. 1, 1980, pp. 63-91.
21. See Gallie, D., "Automatisation et légitimité de l'entreprise capitaliste", *Sociologie du Travail*, Vol. 19, 1978, pp. 221-242; and Gallie, D., *In Search of the New Working Class: Automation & Social Integration Within the Capitalist Enterprise*, Cambridge University Press, Cambridge, 1978. See also Pratten's comparison of British & Swedish Firms. He concludes (among other matters) that the industrial relations structure contributes to the weaker performance of British firms: Pratten, C. F., *A Comparison of the Performance of Swedish & U.K. Companies*, Cambridge University Press, Cambridge, 1976; and Pratten, C. F., *Labour Productivity Differentials Within International Companies*, Cambridge University Press, Cambridge, 1976.
22. See Sorge, A., "The cultural context of organisation structure: Administrative rationality, constraints and choice", in Warner, M. (ed.), *Organisational Choice of Constraint: Approaches to the Sociology of Enterprise Behaviour*, Saxon House, Farnborough, 1977, pp. 57-78.