"Refraction processes" in the diffusion of flexibility; innovation and industrial relations in Britain

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RÉSUMÉ

In certain sectors of many national economies it seems clear that a model of workplace organization - often referred to as "lean production" - is becoming dominant. It involves work designs devoted to "Just-in-time" and "total quality management" along with human resources policies deemed complementary to them. The rate of change varies, of course, from country to country, as the innovations encounter specific national contingencies such as the fabric of industrial relations and employment policy.

This brief paper considers recent British experience of this transition. It argues that researchers need to give more attention to the generation in Britain of a "managerial pragmatism" which has come to constitute a substantial "refractor" of the diffusion of innovative techniques in both production and human resources management.

Evidence is widespread of apparently universal, globalizing tendencies in contemporary industrial organizations. This evidence is strongest and clearest in technologically advanced industries such as automobiles, automotive products and electronics. Without repeating again the elements of the "model" of organizational structure which seems to be emerging (see BOYER and DURAND 1993), or entering into the somewhat tedious debate over how we should label it (Toyotaist, post-Fordist or "l'après-fordisme", flexible specialization ?) we can recall that it is emerging as a result of the twin "shocks" of technological innovation on the one hand (specifically computerization), and substantial administrative innovations on the other (employee participation, Just-in-time (JIT), and total quality management (TQM)). Pressure to adopt these latter innovations has been significant as European and American firms have witnessed the progress of Japanese productivity and quality levels in a whole series of product ranges. But the rate of take-up of change has varied in different national contexts. Why ?

This article concerns the process of diffusion of these innovations and, more specifically, the ways in which they are refracted, distorted and adapted in national contexts. I consider there to be two "prisms" at work in this process ; on the one hand a prism of national factors and on the other a refractor of sectorial nature. The operation of these factors for Britain is considered here along with their role in industrial relations.

1. NATIONAL INSTITUTIONAL INFLUENCES ON INNOVATION DIFFUSION.

First of all I want to argue that the contribution of the work of COLE (1985,1989) to the elucidation of these national refractors of innovation processes has largely been neglected in the literature on industrial relations and

organizational change. His research on Sweden, Japan and the US highlighted a number of differences between these countries which explain why flexible labour use and participative work design became widely diffused in the first two but not in the third. These differences centre on factors which condition the diffusion of innovative management philosophies and techniques.

1.1. Labour Shortages and Skill Levels.

Labour market factors related centrally to the early motivations to innovate organizationally in each of the three societies. Cole notes that in both Japan and Sweden participatory work structures such as autonomous groups and quality circles were a response in large part to labour shortages, not simply a humanistic or ideological push to work reform on the part of companies. Appeals to social values came later and often took the form of rationalizations. Participative work practices formed one set of techniques alongside others to render the work place more attractive to the young and to retain scarce skilled labour. Inter-war small group experiments in Japan favoured this tendency, while in Sweden political developments were significant (we will deal with these shortly). In stark contrast the US during the same period "benefited" from a large pool of unemployed available to fill unskilled jobs in high turnover firms. As Cole notes, "because of the reserve pool of labour, management tolerated high turnover and absenteeism rates and had little incentive to engage in searches for new ways of organizing work". There was little reason to challenge the traditional Taylorist work designs of industrial engineers in firms.

1.2. Scanning the Environment - Managerial Openness to Innovation.

Both Japanese and Swedish managements exploited ideas on participative management which originated abroad. While the Japanese rapidly translated and used American human relations theories - not to mention those of the quality experts Deming and Juran - the Swedes quickly saw the potential of the socio-technical theories stressing job enrichment, group autonomy and joint labour-management planning which first originated in the UK (at the Tavistock Institute in London, of course).In each case a"technology transfer" (of "organizational software technology" as Cole puts it) was effected by a management community constantly orientated (for their industrial survival) to the appropriation of innovative ideas coming from abroad ; "mapping their foreign environment in a systematic fashion" and being prepared to challenge orthodox wisdom with what was discovered. This had profound consequences for organizational learning .

For the US on the other hand, and despite the claims and ambitions of "organizational development" (OD), social science led ideas on organizational experimentation just did not find the same fertile soil and were not seen by US managers as a similar kind of choice opportunity. Low trust labour-management relations were accepted as part of the normal industrial landscape, and perhaps remain so as authors like RUSSEL (1988) and THOMAS (1991) argue.

1.3. Infrastructures for the Diffusion of Innovations.

Once again the contrasts between the three countries follows the same lines, with the Japanese and Swedes profiting from institutional links to build networks for transmission of the new ideas. The Japanese in particular showed energy and imagination on this level with the Japan Federation of Employers Associations (the Nikkeiren) and the Japanese Union of Scientists and Engineers, JUSE, playing a major role in the propagation and legitimation of small group activities and work re-design philosophies. JUSE for example played a leading role in the diffusion of quality circles by publishing a low price magazine about them aimed specifically at foremen and supervisors and also by organizing many circle training programmes and conventions.

The Swedes similarly decided at employer federation level (the SAF) to support and stimulate worker participation with the technical department of that organization running training programmes and publishing cases of "best practice". The two major union federations, the Central Organization of Salaried Employees (TCO) and the Swedish Trade Union Federation (LO) also played a central, crucial, legitimating role. Interdisciplinary research on work developed by engineers, sociologists and psychologists (such as UTOPIA on participative information system design) came out of the DCC, Development Council for Cooperative Questions, set up by the SAF, LO and TCO. What is more the latter also set up an organ for the diffusion of analysis and innovation in human resources management, the Personnel Administration Council, PAC. Its role was to act as a consultant bridging the gap between academic researchers and individual firms. One final point needs to be mentioned - the importance, in both countries, of the role played by technical staff in the organizations mentioned in "converting" academic social scientific knowledge into usable practical knowledge. As intermediaries they were able to communicate on the same wavelength as industrial engineers, quality managers and production directors in firms potentially receptive to new innovations. Managers open to change found them ideal "go betweens".

Three organizations in the US infrastructure , the NCP (National Council on Productivity), the ACQWL (American Centre for the Quality of Working Life) and the Ford Foundation are compared with the Japanese and Swedish in Cole's analysis and all are shown to be victims of financial insecurity and fluctuating leadership. State and employer networks are seen as promising but as still only embryonic.

1.4. Managements, Unions and Consultants.

Other major differences between the US and the two other countries go to the heart of differences in management priorities. Firstly there was the US desire to evaluate and assess organizational innovations by measurement. Surprisingly perhaps, in neither Japan nor

Sweden was the necessity of demonstrating a measurable pay-off of small group activities, or of giving a hard prediction of success before implementation, seen as a priority. They "have been willing to take "softer" measures of feedback as a sufficient basis for decision making and not push for quantifiable, short term, bottom-line pay backs." It was precisely the latter that proccupied US managers and Cole details their adoption of an experimental approach demanding prior calculation of net benefits to be derived from innovations. But why ? Cole's answer is highly plausible ; US managers backed up their suspicion of techniques which challenged some of their basic business values with the demand for measurement and evidence of bottom line results. Secondly there is managerial strategy in relation to trade union policies. In both Sweden and Japan union oppostion was systematically avoided, albeit in different ways. Their "incorporation" in organizational reform processes was more necessary in Sweden than in Japan. In the US, as KOCHAN et al (1986) also point out, pro-participation unions like the UAW (the automobile workers) had to struggle against the rising tide of a non-union model of industrial relations to gain a foothold in workplace reform. All too often suspicion and outright rejection of organizational innovation were the order of the day (THOMAS, 1991). Low trust management-labour relations have predominated despite notable cooperation schemes such as those at some General Motors plants and elsewhere.

Finally there is the issue of the role of organizational consultants in innovation diffusion. Cole's hypothesis is that low reliance on private consultants but high reliance on more "public" networks such as JUSE and SAF had the effect in both Sweden and Japan of making innovation information and experience "common knowledge", open to a wider public, and thus more easily transferable, communicable. In contrast reliance on private consultants in the US was heavy - they were seen by managers as essential to trust building in organization change projects - and this rendered much valuable information "private property". A consequent effect was a negative impact on the flows of knowledge across networks of companies. But doesn't a large market of consultants actually stimulate these flows ?

Cole seems right in viewing this as an inefficient and costly means of knowledge transfer. Not only is it costly to obtain socio-technical or human resources advice and help, but it is also potentially bewildering for the managerial consumer confronted by "similar but different" packages marketed by their producers. A lack of standardized information and publically proven programmes breeds an ambiguity and uncertainty which does not help the potential innovater.

1.5. Political Support and National Debate.

For each of the three countries, the nature of national debate between the principal actors was crucial. Here the Scandinavian experience stands out from the other two because of the depth of early agreement (the late nineteen sixties) between state, unions and firms, over the importance of worker participation. The union role was particularly crucial (in 1970 95% of the workforce was unionized) in building on the considerable momentum provided by a wave of strikes (1970-71) and widespread media and public interest in the quality of working life. This led to successful pressure to legislate for "democracy at work" (1976), a considerable extension of union and workforce authority into traditionally managerial domains - board membership, a central role in works councils etc. In consequence, the issue of "participation" has always been a multi-level affair.

Historically the Swedish unions views on the priority and combination of each type of worker involvement have gone through a number of changes corresponding to the evolution of their strategies. Yet, fundamentally, they have always had the backing of the long dominant Social Democratic Party (SDP) in their negotiations and in their plans to extend participation, largely successfully, into the public sector. Further, as is well known, the longstanding support of the SDP for worker participation served to cement a national consensus on work reorganization, power sharing and high trust industrial relations. National consensus like this was not achieved in either the US nor, perhaps surprisingly, Japan. Innovation in Japan has been an affair of the private sector and government not involved. National unions, political parties and the administration have not participated in the key choices. Networks of managements have always been at the helm of the "movement".

In the US the situation is further contrasted because there not only have governments and political parties until recently regarded participative management on the whole as a non-issue, but also neither union nor management consensus has emerged. Isolated firms, social scientists and consultants have never succeeded in getting the issue on the public agenda. Indeed it was only in the late eighties - with the full international impact of Japanese pratices and strategies being appreciated - that a national debate started.

We can now summarize the factors behind "warm or cold climates" for organizational innovations, the conditions of transfer and diffusion of new managerial techniques. They are :

1. Managerial propensity for environment scanning and openness to organizational experimentation.
2. Effective inter-organizational networks of knowledge diffusion.
3. Trade union cooperation and initiative.
4. Shared and open consultation and advice.
5. Political and public stimulation for innovation at national level.

Now the salience of these factors for what we can very loosely call global "Japanization" or the emergence of "l'après-fordisme" in the 1990's (DURAND and BOYER 1993) - that is to say the diffusion of innovations concerning quality management, work redesign, small group problem solving activities and the human resources policies necessary to support them - is clear. However here I want to place special emphasis on the character of

the historically dominant "patronal mentality" in different national contexts - and to stress that two analytical steps are in fact necessary to understand fully the national "prism" which in our present period refracts "Japanization". Firstly grasping the historical and sociological forces which have over time generated typical managerial mentalities in a given country (D'IRIBARNE 1989), and secondly, the way these mentalities continue to condition strategies in the area of industrial relations, organizational design and employee involvement.

2. BRITISH MANAGERS AND WORKPLACE INNOVATION.

In this section such an analysis is carried out for Britain with particular emphasis being placed on the relation between dominant mentalities and on institutional channels available for the communication of innovations between companies. We can begin by stressing how the acknowledged "opportunism and pragmatism" of British managers (PURCELL 1987, PURCELL and SISSON 1983) developed as an historical product of four factors -

1. Increasing divisionalization and decentralisation of large firms to form a dual industrial structure.
2. Institutional pressure for short term returns on investment.
3. The historical weakness of associative networks of employers at sector and national levels.
4. Processes of managerial education and development.

2.1. As Edwards et alii point out (EDWARDS et alii 1992) British firms generally form part of a "dual industrial structure" - much closer to the USA in essential characteristics than to other European countries - and within this the large companies that dominate the economy have a recent history of intense divisionalisation and decentralisation. This increase of operational managerial autonomy has had the effect of weakening the continuity in human resources, industrial relations and business strategies. Local and pragmatic adaptation to "on the ground" conditions has more often than not prevailed as a result, and this may well have been reinforced by the pressure from investors for significant short-term financial results.

2.2. This latter point is supported by Jones in his wide ranging review of British companies' information technology (IT) innovation strategies and their organizational outcomes. In Britain new technology investments

> "... have to be justified in such a way that a return on investment can be achieved within a relatively short-term pay back period of around two years. This is a constraint that arises from the financial and institutional environment of British industry. External shareholders operate in a volatile market for shares and other stocks. Half-yearly statements of profits and share dividends are taken as indicators of a company's value as an investment opportunity. This constitutes a continuous pressure on top managements to obtain quick financial returns from new plant investments and pushes production management into cosmetic proposals for short-term cost savings to cover such qualitative aims as capability to respond quickly to certain kinds of orders and customers or improved production quality from particular designs." (JONES 1988 : 474)

He further notes that in many companies dealt with in his research these constraints led managers to reduce flexible use of new technologies because urgent commercial targets precluded the machine down-time needed for experimentation, adjustments and work redesign. Socio-technical planning for innovation gave way to piece-meal short-term adaptation of the existing work organization.

2.3. Thirdly we come to the nature of national and sector level networks of employers in associations. Their role, as we have seen, is seen by Cole to be particularly important for the dissemination of ideas on organizational experimentation and redesign. In Britain such networks have always been relatively weak because of the persistent low membership levels of associations. As Edwards et alii note

> "...in many sectors membership fails to reach 50% of eligible companies. Significantly many of the large multinational companies, which are members of employer's organizations in other countries, are not members in Britain." (EDWARDS et alii : 21)

Now this does not, of course, eliminate the possibility that informal contacts, buyer-supplier relations and other industry links might provide information and knowledge transfer channels of great effectiveness. It does mean however that many British firms do not make use of one of the potentially most powerful networks for innovation diffusion and circulation. At the industry or sector level this dispersion and lack of integration has been problematic ; it allows considerable diversity in managerial practices and collective bargaining (via the build up of procedural rules and norms) but clogs the channels of knowledge sharing. Pragmatism is the result.

2.4. Finally the normal processes of managerial education and development need to be invoked to add to the picture. As Handy has shown and others have echoed, managerial education in Britain has until very recently been dominated by approaches which do little to combat a rather conservative and inward looking philosophy constituting the dominant post-war management "paradigm" in. Such a philosophy has been traced particularly in middle managers (PURCELL and SISSON 1983). Its dominance may well have had a lot to do with the conspicuous failure of movements such as work redesign and socio-technical theory (first developed, ironically, in Britain of course) to have any substantial impact on management practice in the nineteen seventies (BUCHANAN and McCALMAN 1989). Certainly the poor overall level of education of British managers compared to that of their French and German counterparts, for example, cannot make us very optimistic about their disposition to

adopt an open and innovative stance in regard to new administrative practices (SADLER 1989).

3. THE "REFRACTION" OF INNOVATIONS BY PRAGMATISM.

Now this historically dominant opportunist and pragmatic mentality can be argued to be a crucial factor in determining the way innovations like quality circles, just-in-time (JIT) and total quality management (TQM) have been used and adapted in British organizations over the past few years. Evidence is of four types ;

a. Evidence of the practices of British managers in the domain of quality management and control.

b. Research on recent British human resources management behaviour showing piecemeal "short-termism", especially in areas such as training and employee skill development.

c. Evidence of organizational and work redesigns adopted in Britain to accomodate computerization.

d. Sector level research showing that "functional flexibility" has invariably involved simple job enlargement rather than up-skilling or the emergence of "l'organisation qualifiante".

a. Most commentators on management accept that some of the most important and far-reaching organizational reforms of the past decade have concerned quality control. We might say that an index of managerial health and vitality lies in the capacity to adapt rapidly in this increasingly strategic domain (DALE 1990). Can we say that in response to quality challenges the British managerial community has acted in such a way as to overcome the attitudes I have described as dominant (its pragmatic "muddling through") or has opportunism and individualism continued to condition its use of innovative techniques ?

Evidence on this question has been provided by DALE (1990), MORRISON (1990) and HILL (1990). Morrison's history of quality control in U.K industry is particularly revealing as far as the evolution of a "quality consciousness" in the managerial community is concerned. To begin with - and this confirms our point about the weakness of associative networks in promoting innovation in Britain - he describes the short and difficult life of quality pressure groups in the U.K. The NCQR (National Council for Quality and Reliability, set up in 1961) affiliated to the European Organization for Quality Control, "ceased for a while when the Ministry of Technology withdrew its financial support" and "was kept alive only by the personal devotion of a small band of enthusiasts". In 1981 the NCQR became the BQA (British Quality Association) and then finally in 1983 a National Quality Campaign was launched -after years of hesitation - with Conservative government support. Secondly he considers how British management has responded to this activity, taking as a key indicator the quality related activities of the British Institute of Management (BIM). His judgement is severe :

> "...the BIM seems to have taken a passive supportive role rather than an active leading role in the campaign...this writer had formed the opinion that most managers accept the economic importance of quality but do not understand the subject well enough to know where to begin." (MORRISON 1991 : 29)

In this light it is not surprising that the avilable evidence on the British implementation of TQM and the more limited mechanism of quality circles shows pragmatic short-termism to prevail (DALE 1991). This mentality is untouched by the essentially limited activities of associations and the outcome is that widespread strategic use of the approach suffers.

b. A second domain where we might seek evidence of the decline of the patronal mentality I have described is of course that of personnel or human resources management (HRM), one of acknowledged innovation throughout European business in the last decade. We have been led to believe by many management commentators that during the nineteeen eighties certain personnel policies were becoming more and more "strategic" and integrated into business policies. We might then expect ask whether HRM has spearheaded managerial innovation in employee relations in the U.K.

Here again the evidence does not favour the thesis as work by EDWARDS et alii (1992), STOREY (1992) and SISSON (1989) makes clear. It is certainly true that a shift in emphasis in personnel policies took place in the 1980's with "an increased use of a range of practices which focus on individual employees and their contribution to the enterprise."(EDWARDS et alii : 27) But as the same authors argue

> "...there is little evidence to suggest that these initiatives add up to the widespread adoption of an integrated HRM approach. Few companies seem prepared to undergo the change in management approach and incur the expense involved... though new devices such as direct communication with employees were widespread there was little evidence that HR policies were linked to traditional industrial relations concerns or that HRM policies were deployed in a connected way... As with attempts to increase flexibility, many of the initiatives are best seen as essentially piece-meal reactions to the economic and political context." (ibid. my emphasis)

c. When we turn to evidence of the kinds of organizational changes implemented by British managers to accomodate computerization we are confronted directly with a halting and hesitant struggle with Taylorist work designs and a choking dominance of Fordist thinking. As JONES (1988) shows in his comprehensive analysis of the use of flexible manufacturing systems (FMS) in the U.K. such technologies have more often than not been underexploited as far as their "flexibility" potential is concerned. They were used "in similar fashion to mass

production technology to make much longer runs of more standardized products". Lowered flexibility targets for the technical systems correspondingly led to lower innovation in work design with "only isolated instances of a move towards autonomous work groups with a higher "vertical" level of worker responsibility."(JONES 1988 : 475) This tendency is confirmed by BESSANT and HEYWOOD in their (1987) study. Pragmatism has thus refracted and conditioned the use of technologies which could - this is their great human potential - be exploited to generate an organizational structure based on job flexibility, learning and "up-skilling." A form of neo-Fordism has thus prevailed.

d. Further evidence of this tendency is also available from studies of specific sectors of the British economy. O'Reilly's comparative work on retail banks in the U.K and in France is particularly worth mentioning here (O'REILLY 1992). In her recent study she shows the different ways in which functional job flexibility has been interpreted and implemented in the two countries. 75% of the British respondents to the study, compared to only 25% of the French, considered their work as either very routine and repetitive or where they could "occasionally do new things". 80% of the French bank employees, compared to only 20% of the British, said they "did new things quite often, or that jobs were varied". She concludes

> "These quantitative data support the observational and interview data which identified distinct patterns in each country ; in France there was more task integration, in Britain tasks were more segmented." (O'REILLY 1992 : 381)

This constitutes further support for our thesis on limited managerial innovation in Britain and this is borne out in O'Reilly's own consideration of what explains the differences between British and French banks uses of flexibility. She suggests that "independently and accumulatively" the following factors have played a key role : 1. qualifications of the available labour force, 2. recruitment practices, 3. training policies, 4. use of cashier computer terminals, 5. size of branches and departments, 6. differences in the way security issues are treated.

Clearly the last three are bank related and represent the kinds of contingencies which are often going to influence the way managerial innovations become expressed "on the ground" in industry-specific terms. They represent what we referred to earlier as "sectorial refractors" of organizational innovations. The first three however concern the interaction between national education and training policy and human resources policies in banking - here what O'Reilly fails to stress is the difference in the dynamics of this relation in the two countries. In France, training, skill development and flexibility in sectors like banking have the high priority they do because of a consensus on their importance which has been reinforced by the state, employer's associations and unions. This has cemented a managerial commitment to flexibility and social innovation. In Britain no such consensus has emerged and managements in this sector have, in using part-time workers, sub-contracting and job segmentation, sought a pragmatic adaptation of the bureaucratic and inflexible features of the banking employment system.

4. PRAGMATISM WITHIN CHANGING INDUSTRIAL RELATIONS PROCESSES.

The last point about national consensus implied that this opportunist and pragmatic managerial mentality in Britain has been relatively untouched by what we might call "attenuating forces". Neither governments nor trade unions have in fact sought to change it.

The unions for their part have been, as is well known, engaged in a struggle for survival since 1979, faced with government hostility and an unfavourable employment and membership climate (TOWERS 1989, ROSE 1993). Also it needs to be remembered that in the last decade most of the major British unions have regarded organizational changes in an overwhelmingly suspicious way even though technical change (symbolic of investment in the future ?) has invariably been welcomed (DANIELW.W. 1987). Hogarth's development of Daniel's work shows this clearly (HOGARTH 1993). In his case studies :

> "Whilst the unions recognized the need for change, the contexts in which they negotiated very often cast them in the opposite role. Therefore their often repeated claims that their interests lay in securing the future of the establishment sat uneasily with an approach which was oriented more to resisting change and seeking financial recompense where it was to be accepted." (HOGARTH 1993 : 200)

Furthermore only very recently have some of the major unions (and their confederation the TUC) developed a strategy of "humanizing" - as opposed to combatting - HRM policies (IRS 1992). Thus managerial pragmatism has usually been reinforced by the need for slow step-by-step collective bargaining and struggle over each innovation in the workplace. As Edwards et alii note, moreover, British managers have not generally tried to promote a "new industrial relations" by including unions in strategic HRM and business issues as have some American firms :

> "Nor have companies sought to articulate their initiatives towards individual employees with their approach to unions in the way that Kochan et al report in the USA where firms ... introduced joint union consultation over a wide range of issues." (ibid. : 27)

Relatively few companies in Britain - mostly foreign owned - have taken this step. A few well-documented cases like Rover, Hitachi and Toshiba come to mind.

As far as the state is concerned, I would argue that despite very recent initiatives on quality management and training, its action over the past two decades has also actually served to reinforce the traditional neo-Fordist mentality of the British managerial community. The insufficiency of successive government's policies on vocational training may itself be seen to constitute something of a national scandal - little politically has been

done to galvanize the managerial community into medium and long-term planning in this area. As regards work redesign and the "learning organization" we can take conservative government's policies on advanced manufacturing technology (AMT) adoption as indicative - far from favouring neo-Japanese "adhocratic" or "organic" models of work organization (l'organisation qualifiante ...) it has implicitly favoured overhead cost reduction and a more efficent Fordist, mechanistic framework as Jones has clearly demonstrated (JONES 1988).

CONCLUSION.

If we accept the influential role of what I have called "managerial pragmatism" in Britain - and I accept that here I have simply raised a number of issues about its expression and importance in contemporary Britain without specifying its weight - then what are its implications ?

One is that far from "Japanization" and functional flexibility spreading, a dual industrial relations and human resources scenario is likely to become more and more evident with, on the one hand, a bloc of international companies in highly competitive sectors (one thinks of firms like Rover and Lucas, Black and Decker etc...) able and willing to adapt Japanese or American practices (MUELLER 1992, BUCHANAN and McCALMAN 1989), and on the other, indigenous firms following variations on the dominant theme of a traditional low-trust neo-Taylorist control philosophy. Heterogeneity in industrial relations and in HRM, with different agenda and forms of evolution for each of these parts of the system, is likely to prevail. With the downturn in inward American and Japanese investment - particularly the latter - the era of "Japanization" seems to be coming to a close.

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