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**Participation in Organisations: Economic Approaches**

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## **Abstract**

Under the auspices of the debate about high performance work systems, it has been suggested that the evidence of positive results is disappointing and that one reason is that there has been a lack of theory. This paper argues that there is indeed a great deal of theory that could be used to reformulate the basic research questions, much of it coming from labour economics broadly understood. It includes a meta-survey of research on the effects of participation on performance since the landmark survey by Levine and Tyson in 1990 which was very positive. It finds that the evidence is less clear cut now. It is argued that this is due in part to consideration of a wider range of performance outcomes, improved data and methods, and to the wider diffusion of such practices compared with the 1980s. It is also suggested that the debate needs to be widened to include a broader range of participatory structures.

Keywords: Labor–management relations, trade unions, collective bargaining, labor management, employee participation

JEL Classifications: J5, M54

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## 1. Introduction

Over the years, economists have looked at participation in organisations from a great many different angles, and to say that there is an ‘economic approach’ is a bold simplification. Nevertheless, there are certain strands running through the broad economics literature that distinguish it from the other disciplinary approaches. In this paper, we focus mainly on participation within organisations, and therefore leave out the extensive work on participation in the wider regulation of economic sectors and of the economy as a whole. We also take the employment relationship as the focus. In the path-breaking work of Coase (1937) and Simon (1951), the employment relationship is treated as a form of contractual framework in which workers agree to let managers direct their work within certain limits in exchange for their pay. Within this context, one can think of participation as an adaptation of the ‘right to manage’ form of the employment relationship according to which employees have varying degrees of input into decisions about work assignments and their coordination.

At a descriptive level, participatory forms are one of several possible ways of coordinating productive work within organisations. The debate among economists has tended to focus on the relative efficiency of different ways of organising employment relationships. At one extreme, we have simple hierarchy, with management enjoying the full right to direct employees’ work within a ‘zone of acceptance’, the range of tasks that employees agree falls within their respective jobs. At the other extreme, employees exert a very considerable degree of influence over their work priorities and enjoy a great deal of autonomy with regard to management over the timing and organisation of their work.

Coase and Simon argue that firms have widely adopted the employment relationship in preference to other forms of contracting with those selling labour services because it is a more effective means of coordination under conditions of uncertainty about prices and about future labour needs. This highlights two of the key economic arguments concerning participation, namely information, because workers often understand better the details of their work than do their managers, and the necessary adaptation and renegotiation of job boundaries as organisational needs change, which are important because the right to manage is built upon a mutual and voluntary agreement when the employment relationship is entered into. The emphasis on coordination under conditions of uncertainty raises another set of issues that has received less attention within the economic approach, concerning the type of organisational architecture which provides the context for participation. Although Mintzberg may not spring to mind as a disciple of Coase and Simon, and probably not consider himself as such, his classification of organisational types presents a logical development of their work. Focusing on the contrast between simple hierarchy and full employee autonomy provides a rather limited two-dimensional view of participation which conceals many of its potential economic advantages. If the purpose of organisations is to coordinate human activity, then it follows that the constraints that this process has to obey will shape the design of employees’ jobs. Mintzberg (1979) argues that organisations may coordinate the inputs or the outputs of work, and they may do so either *ex ante* by a process of standardisation of routines and jobs, or *ex post* by an ongoing process ‘mutual adjustment’. In a later section of this chapter, we argue that the spectrum between simple hierarchy and high autonomy assumes a different meaning depending on how organisations approach their coordination function.

At the centre of the argument in this chapter is the idea that the contribution of economic approaches to participation within organisations lies in their focus on the difficulties of coordination under conditions of uncertainty and limited information. Actors are subject to bounded rationality in the sense that their activities are mostly goal oriented, an assumption shared by most economists as by Max Weber, but their calculative capacities are limited. In a world of perfect information and perfect markets, neither employment relationships nor employee participation are needed. Thus, the question arises as to how well

different models of the employment relationship help to solve the resulting problems of coordination, and in so far as their solutions build on arrangements that endure over time, how these can be best adapted to changing needs.

In this chapter, we start with a brief historical overview of developments over the past forty years because it is useful to set theories in their wider historical context – why people pose the questions they did at a particular time. We then review a selection of the major theoretical approaches that illustrate the broad tent that encompasses the ‘economic approach’. We then consider the diffusion and the ecology of participatory practices and how this has been interpreted. Next we present a partial survey of recent quantitative work on the performance effects of participatory practices updating that of Levine and Tyson (1990). Finally, we examine some of the conceptual problems posed by these studies before concluding.

## **2. Brief Historical Overview of the Argument/Debate**

In the 1960s and early 1970s, much of the work on participation focused less on its positive economic advantages than on the dysfunctional nature of what was commonly referred to as the bureaucratic model of blue and white collar work. ‘Blue collar blues’ and ‘white collar woes’ were two of the section headings of the US government task force report ‘Work in America’, published in 1973 (O’Toole, 1973). More educated workers with higher expectations were alienated by jobs that gave them little discretion and which were deprived of meaning because of the polarisation between conception and execution. In France, the work of Georges Friedmann (1954), and his co-researchers, and in Scandinavia, the famous Swedish work organisation experiments (Berggren, 1992) illustrate how widely the problem was perceived across the industrial world. From a narrowly economic point of view, worker alienation fed into reduced productivity because it was associated with high rates of absenteeism and labour turnover, worker discontent and shop-floor militancy. But it was also seen as harmful from the wider point of view of reduced worker and social well-being. The Work in America report highlighted also the cost of alienated work in terms of damage to physical and mental health, as well as its impact on women and minority workers.

Another element of the alienation and participation debate was to focus on the forms of spontaneous participation emerging from the shop-floor, and threatening management control. In Britain, this was widely associated with the ‘shop stewards’ movement’, but similar movements also took place in a number of continental European countries sparked by the Events of May 1968 in France and the Hot Autumn of 1969 in Italy (Spitaels, 1972). These ‘bottom-up’ movements revolved around what might be called the ‘frontier of control’, contesting the right to direct labour that management acquires through the employment contract, and offering a view of participation that revolves around joint decision-making and negotiation.

By the late 1970s, a new theme was coming to the fore in terms of the positive benefits of employee voice for business performance. The argument was most prominently stated by Freeman and Medoff (1979; 1984) in the ‘two faces of unionism’, inspired by Hirschman’s (1970) theory of ‘exit, voice and loyalty’. The two faces comprise one associated with zero-sum monopoly bargaining, long familiar to many economists, and one associated with a positive-sum interaction on account of the opportunities employee representatives provide for sharing information with management and which can lead to productivity improvements. Freeman and Medoff’s paper stimulated a great deal of research on the effects of unions on various aspects of business performance, including productivity, labour turnover, absenteeism, and financial performance. By the time of Levine and Tyson’s (1990) review, the evidence for positive productivity effects of employee participation was

somewhat stronger than that for unions, although measurement problems and data limitations still leave much room for debate.

With the changing nature of modern economies, by the 1990s, two works stand out as signalling a new emphasis on participatory structures within organisations. Womack et al's (1990) account of lean production in the 'Machine that changed the world' drew special attention to the innovations of Japanese lean production with its emphasis on devolving a number of decisions and responsibilities to shop-floor workers and its use of team working. Participatory structures also attracted interest on account of the emerging knowledge economy, and the importance of 'knowledge spillovers' as a source of growth for whole economies, and of competitive advantage for individual firms (Romer, 1994). Potential knowledge spillovers can play a key role both between and within organisations, and key questions concern the types of organisational arrangements that facilitate their use, and how far they are favoured by horizontal rather than vertical coordination mechanisms.

### **3. Theories Linking Participation to Performance**

It has often been complained that the 'high performance work system' models rely too heavily on empirical correlations and that there is little available theory to link participatory models to performance (Fleetwood and Hesketh, 2006). In fact, one can identify a large number or related theories, of which we give seven that are broadly based on an economic approach.

#### **a) Alienation**

Although Blauner's 1960s classic study of alienation in modern American workplaces took its cue from Marx's early writings on wage labour, Adam Smith is also credited with a deep awareness of the limitations of his pin factory model of the division of labour. Excessive division of work tasks could harm for workers' motivation and limit their ability to establish the social bonds in the workplace that can assist cooperation and productivity (Lamb, 1973). Setting his Theory of moral sentiments alongside his Wealth of nations has led many to question the status of the pin factory example: was it intended to stress the productivity of that kind of division of labour, or to illustrate a more general principle about the gains from specialisation, skills and productivity? If we follow Blauner's analysis, where workers feel isolated in their environment, their gestures seem devoid of meaning to them, they have no influence over their work, and there is no scope for self-improvement, then it is hard to envisage any other method of coordination than command and control. Following Smith's theory of moral sentiments, lack of scope for social interaction among workers in the pin factory would lead to a similar conclusion. The work process might function well until something goes wrong, but without the social bonds that support mutual adjustment, the solutions would depend on top down interventions from management. Blauner's analysis in the US, like that of Touraine (1955; 1966) in France, supported an argument linking 'taylorist' division of labour to certain economic dysfunctions by comparison with other models, notably craft organisation, such as in contemporary printing, and in small batch manufacturing and semi-automated work places, such as in chemicals. If the human and social cost of alienation was reflected in dissatisfaction and illness, especially mental illness as observed by Work in America, the economic cost for the firm could be measured in absenteeism, turnover, and shop-floor militancy, and their outcomes in terms of loss of productivity and product quality.

This led to a kind of negative case for increased employee participation: involving employees more in decisions relating to their work, and giving them enlarged and enriched jobs could help to mitigate the negative consequences of work in mass production. Perhaps because many economists lacked the necessary research skills, much of the running on the empirical side was made by work psychologists, a notable case represented by Hackman and

Oldham's (1976) 'job characteristics model'. Their model reflects Blauner's analysis, arguing that skill variety, task identity and task significance could enhance employees' experience of meaningfulness in their work, autonomy would counter the feeling of isolation and lack of influence, and feedback on the actual results of work activities would contribute to self-actualisation through the knowledge of whether or not one has done a good job. In a wide-ranging review of 'before and after' studies applying this theory, Kelly (1992) found only modest support for the theory: job redesign increased job satisfaction, but it did not appear to raise motivation. Kelly's interpretation of this finding provides an interesting comment on the psychological approach. The omitted variable, so to speak, was the contractual nature of the employment relationship within which job redesign took place, or in terms of Marx's theory of alienation, the fact that labour services are bought and sold in a market relationship. Thus job enlargement and enrichment are always ambiguous, bringing scope for increased job satisfaction, but at the same time, enlarging the employee's productive obligations within the employment relationship. Thus, he showed that job performance improvements tended to occur either when the employer offered pay rises along with the job redesign, or when there were significant redundancies so that workers feared for their jobs.

#### **b) Exit, voice and productivity**

Voice theories represent an alternative approach to examining the potentially positive effects of participation on productivity and other measures of organisational performance. Freeman and Medoff's (1979; 1984) landmark study adapted Hirschman's 'exit, voice and loyalty' theory as a new starting point for looking at employee voice and productivity (Hirschman, 1970). Most organisations work well below their peak level of efficiency because of 'x-inefficiency' or 'organisational slack' (Liebenstein, 1966). Often, managers have difficulty obtaining the necessary information to improve efficiency levels because of information asymmetries between themselves and their subordinates. Workers often may not find it in their interest to share such information because managers may use it to retime their jobs, or even to make them redundant. In the long run, the resulting lower productivity will hold down the growth in wages, but if workers do not trust their employer to share productivity gains, there is little incentive for them to share information. Faced by depressed earnings with their current employers, workers may then quit, 'exit', to work for higher paying, higher productivity firms, and in doing so, take the information with them. There might be other causes of efficiency loss, such as line manager incompetence or bullying behaviour whose resolution would benefit the organisation if only workers would share with their managers. Sharing ideas for improvements and expressing grievances to management facilitate the flow of information within organisations, and such 'voice' strategies can lead therefore to enhanced organisational performance.

'Voice' involves a prisoner's dilemma. Sharing information and sharing the productivity gains may be in everyone's interest, but the fear is that either side will take advantage of the other's weakness to pocket the lion's share of the gains. The risk is particularly great for workers because once the information is shared it cannot be withdrawn, and they have lost a vital resource in any power game. However, it could also run the other way if the employer makes initial concessions which are not reciprocated. Hence the argument for embedding information sharing within some kind of institutional framework which offers guarantees to both parties, such as formal participation schemes.

Freeman and Medoff introduce an additional argument for formalised employee voice in the workplace, namely, that individual voice may be inhibited by free-rider problems. This is particularly relevant for the kind of information that could cause the messenger to be perceived as a troublemaker, for example, if the line manager were incompetent or overbearing. In Freeman and Medoff's language, it is 'let Harry do it' while Tom and Dick keep their heads down. If Harry gets the grievance rectified, they all benefit, and if he gets marked as a troublemaker, Tom and Dick are still safe. Thus 'voice' could be stifled by a lack

of protection for those exercising it. Hence, there is a second argument in favour of formal institutional arrangements to protect the exercise of voice. Although Freeman and Medoff's primary focus has been to explain the potential benefits of union representation, many of their voice arguments are of more general application, and have been widely used as a justification for participation.

### **c) Teams and peer group monitoring**

In their classic article on the theory of the firm, Alchian and Demsetz (1972) propose a theory of the firm based on the monitoring of effort by each party. Firms exist, they argue, because of the gains achieved by means of team production. However, in a world of selfish agents, these gains can only be realised if free-rider problems are overcome. In the example they give, loading a heavy object, it is the co-workers who can judge whether or not the others are lifting their share. What the firm provides is a contractual framework and an incentive structure to ensure that monitoring is carried out efficiently. They argue that a hierarchical structure will develop if specialist monitors, called managers, are more effective than team monitoring. The argument for the profit-oriented firm is that it is hard to monitor those entrusted with monitoring their co-workers, and so paying them the residual income after all costs have been deducted, that is profits, gives them an incentive to monitor effectively.

Whether or not hierarchical monitoring is more effective than peer monitoring depends heavily on the quality of the information on which it is to be based. Kolm (1969) illustrates the simplicity of the structure of information flows in a formal hierarchy compared with their multiplicity within a peer group in which each is monitoring the others. Thus if the relevant information can be simplified and codified, then a hierarchy will be more efficient in terms of costs and effectiveness than peer group monitoring. On the other hand, if the information is complex or strongly idiosyncratic, then peer monitoring may prove more advantageous. However, the effectiveness of peer monitoring may be constrained by group size. Williamson (1975) suggests that the motivation and the resources available are affected by group size. Bounded rationality means that above a certain group size, the monitoring of all by all becomes problematic, and if sanctioning free-riders is costly for the individuals doing it, the motivation to take them to task may also decline.

Peer group monitoring is a complex phenomenon. Although it may be in the interest of each individual to ensure there are no free-riders, the incentive to exert pressure must be sufficiently strong to overcome any reticence either to pressurise one's colleagues to work harder, or, more seriously, to 'snitch' on them to management. Williamson (1975) acknowledges the importance of atmosphere in work groups to their willingness to provide 'consummate' rather than 'perfunctory' performance. Although he does not set much store by 'trust' except as a mutual expectation about behaviour (Williamson, 1993), there is a fine line between enforcing cooperative behaviour within the group by informing management of a colleague's inadequate effort, and disloyal behaviour that would undermine team-work. At what point do fellow team members interpret peer monitoring as opportunistic behaviour intended to curry favour with management at the expense of other group members? Some of the classic sociological studies of how work groups deal with 'rate busters' illustrate how the processes behind peer monitoring may cut both ways: to discourage 'shirking' but also to discourage actions that might undermine group performance norms (eg Dalton, 1948; Roy, 1955; Burawoy, 1979). This was echoed in a study of efficiency wages, Belman et al. (1992) found evidence of restriction of effort in workplaces with both cohesive work groups and unions. When the performance of individual workers depends on that of their peers, which is the whole point of Alchian and Demsetz's argument about the advantages of team production, then the group has powerful sanctions it can exert over members who deviate in either direction.

The question of peer group monitoring has returned to the fore in recent studies of incentive pay, notably, the use of team rewards and profit-sharing. Using a data set that

enabled them to measure peer monitoring, Freeman et al. (2008) argue that it may be one of the key factors behind the positive effect of group incentives on performance. They also found that peer monitoring but also peer group support were encouraged by group incentive pay.

**d) 'Frontiers of control' and the employment relationship**

Although not formalised into a testable theory, 'frontier of control' theories of participation have played a significant part in explaining persistent international differences in labour productivity. They lay behind two key drives for the reform of British employment legislation in the late 1960s and early 1970s. If Britain could develop legally binding collective agreements on the US model, then work flow management could be more predictable and less frequently interrupted by unofficial strikes, a view championed at that time in Britain by Professor Ben Roberts. There might be periodic set-piece industrial conflicts, but in between contracts there would be none of the on-going micro-conflicts that were thought to have so damaged productivity in British plants. An alternative path was offered by the German experience of codetermination. It was argued that unlike Britain and the US which had sought to combine the negotiation of change with pay bargaining in the form of productivity bargaining, the German model had in effect separated these two processes institutionally (Delamotte, 1971). Unions and employer organisations could fight out the zero-sum battles over the distribution of the surplus in industry-level pay bargaining. However, the workplace was to be the locus for positive sum negotiation between works councillors and local management, from which the tactics of industrial warfare were banned for both parties: no strikes and no lock-outs.

The term 'frontier of control' has a long radical history, as is shown by Hyman's (1975) foreword to the reprinting of Goodrich's (1920) classic study of British workshop politics in the years up to 1920, and in similar studies such as that by Cole (1923). Nevertheless, it has its roots in the open-ended nature of the employment relationship and how the respective obligations of employee and employer are regulated. At its core lies management of the 'zone of acceptance', the range of tasks across which employees consent to management directing their labour, a concept that has played a key part for theorists ranging from Simon's (1951) formal theory of the employment relationship, to Rousseau's (1995) psychological contract theory. The recognition they all share is that the limits of the zone of acceptance will always include an important unwritten element. Even the most explicit employment contracts almost always contain a final catch-all clause to include any other duties as management may determine, the significance of which has been long recognised, as shown by Betters' (1931) historical study. Williamson (1975) shows that to specify these in a contract would involve multiple contingency clauses that would be far too costly to be workable for employment relationships. In other words, the zone of acceptance functions according to established practices of the workplace which emerge out of the day-to-day interaction between workers and their managers. Brown (1973) shows the central role of workplace custom which then spreads by means of equity arguments. Thus management errors of omission, for example not enforcing a rule for one group of workers, become an argument for not applying it to others, on grounds of equity. Brown also shows how the politics of work group relationships, and the need to maintain a good bargaining relationship with management, determine which practices will become part of workplace custom and which will not. Thus, the scope of management's control over work assignments, and its application of workplace rules to regulate these, can be quite fluid. As new employees join the organisation, these unwritten customs become for them the way their job is done in practice.

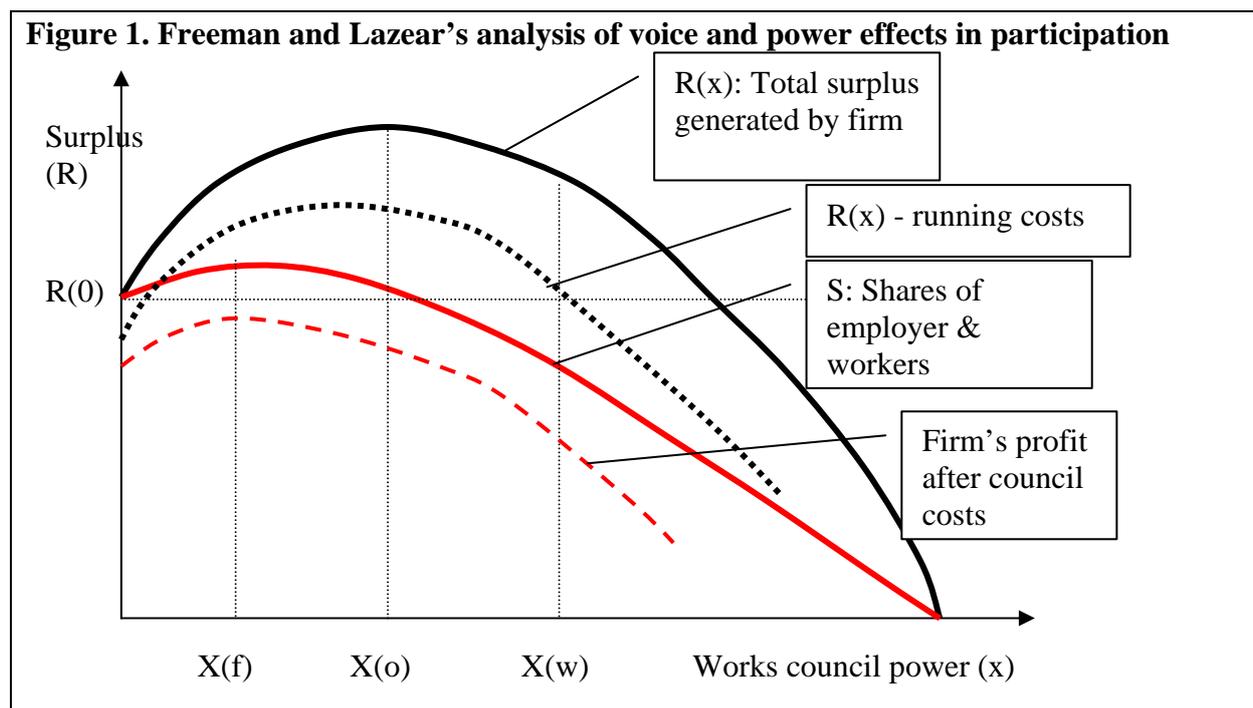
Writing about a period of very tight labour markets, and one in which the employment relationship was progressively displacing earlier forms of contracting for labour services, both Goodrich and especially Cole highlighted the phenomenon of 'creeping control' whereby the workforce eroded management's right to direct labour within this zone of acceptance. In

doing so, they increased their own ability to regulate their work patterns and, in the process, obtain a more favourable wage-effort bargain. Goodrich's study sheds interesting light on the way the frontier of control is regulated, and the boundaries of jobs stabilised. Rather than seeking to codify the zone of acceptance, both parties sought agreement on the resources that they could bring to regulate the relationship and stabilise their bargaining power. Thus, the employers sought recognition in a number of landmark collective agreements in which unions recognised management's 'right to manage', separating the functions of managing employment contracts from coordination of the business. On the workers' side, Goodrich illustrates their moves to gain acceptance of regulatory principles that would enable them to keep to the spirit of the zone of acceptance they understood on joining the firm, in modern jargon, to reduce their exposure to post-contractual opportunism by the employer. Thus, insisting on the 'right to a trade' or occupation provides a guide to which tasks may be undertaken because of the processes and techniques learned during training. This is reinforced by control over a number of other key resources and activities that affect the bargaining power of both parties: hence, in his study, a focus on regulating discipline, dismissal, methods of payment, choice of supervisor, and so on. Apart from the first, none of these would determine directly the scope of a job, but each affects key resources in the implicit ongoing negotiation, and thus the ability of either party to enlarge or contract the range of tasks within the zone of acceptance, and to influence the procedures by which work is directed within this zone.

One factor helping to stabilise the zone of agreement lies in the articulation between the institutions controlling these different resources, and limiting the degree to which they can be used in conjunction with each other. In an analysis of the systems of institutional participation in Britain, France and Germany in the 1970s, one of the current authors showed that as a result of distributing the issues subject to employee influence across different bodies, each of which may have recourse to different types of sanctions, employees had acquired quite considerable degrees of voice over a range of issues whereas the process of incremental creeping control had been restricted. Thus, German works councils gave German employees considerable voice over many aspects of their work organisation, training, and jobs, but they were limited in how far these could be used in conjunction with wage bargaining and the rights to use the pressure tactics of industrial conflict which could be operated only outside the workplace at industry level (Marsden, 1978). Similar arrangements applied in France, whereas in Britain the separation of powers was much less clear, and the frontier of control more fluid, a contributory factor to Britain's industrial productivity problems of that period.

One of the few attempts to formalise the division of functions between participation and bargaining activities was undertaken by Freeman and Lazear (1995). Their argument is based on the intuition that participation institutions require a certain amount of power before workers will share information share with management without fearing that they are losing a vital resource in their power relations with management. However, as this power increases, so does the capacity to impede management's task of coordination. There is therefore a 'joint' or social optimum level of participation at  $X_0$ , which represents the maximum net gain from information sharing and efficient coordination for both parties as a whole. They also show how the employer's preferred level at  $X_f$  could be below this because as workers' power increases, so does their capacity to bargain for a larger share of the surplus. If both parties were to negotiate their preferred levels of participation, the resulting compromise would be below the socially optimum level, especially if the introduction of participation depends on the employer's initiative. Indeed, if they feared that employee powers would grow, they may well prefer to have no participation at all. Freeman and Lazear consider two possible solutions: legislation to compel both parties to move to the socially optimum level; and separation of the functions of productivity enhancing information sharing from bargaining over the division between wages and profits. They cite the German example in which works councils deal predominantly with the former and industry unions and employer organisations that negotiate

over the latter. In this case, the two functions of information sharing and pay negotiation are institutionally separated.



#### e) Participation and renegotiation

Much of the literature on participation focuses on teams and representative institutions which all involve an element of collective voice. This should not obscure the importance of individual employee voice in employment relationships once the relationship has been initiated. There is obviously scope for employee voice prior to hiring as the prospective employer and employee negotiate terms. Yet given the prevalence of long-term employment relationships in all major economies, there often comes a time when both parties need to revise the scope of the zone of acceptance because their respective needs have changed. In many countries, employment law lays down that terms of employment should be revised by mutual consent, but even under 'at will' regimes, where the employer may do this unilaterally, employers often choose to work by agreement in order to sustain employee motivation (Malcomson, 1997).

Economic contributions to our understanding of the process of renegotiating the zone of acceptance complement those from the psychological contract perspective (eg. Conway and Briner, 2005). There has been considerable work at the aggregate level on the effects of different bargaining structures (eg. Teulings and Hartog, 1998), but this also is beyond the scope of this chapter. There is however an important strand of thinking which can be traced back to the work of Walton and McKersie (1965) on different types of bargaining relationship, and notably, the contrast between 'distributive' bargaining where one party's gain is usually at the expense of the other, as in pay bargaining, and 'integrative' bargaining, where mutual gains may result, as in productivity bargaining.

Often the adaptation of the zone of acceptance conforms quite closely to the scope of integrative bargaining. A change in technology, organisation methods, or just in job demands may take both parties beyond the understood zone of acceptance at the time of hiring. The employer could try to impose the change unilaterally, but with the risk that the discontented employee may leave, or stay on with reduced motivation. This may not be ideal for either party. On the other hand, the needed changes could be discussed. In an integrative negotiation, the aim is to find a mutually acceptable solution to a problem, which often requires give and

take. Thus, to get the desired change, the employer may propose to alter the zone of acceptance in other areas that are favourable to the employee, or to provide organisational resources to make the employee's job easier. Often, employees fear that extending their job boundaries will lead to assignments which are beyond their competence, with the result that their performance would suffer incurring a loss of pay or worse. For management to provide the necessary support, it needs to know the problem from the employee's perspective, so that information exchange is essential.

Team level discussions with management provide one channel. Another potential channel which has been relatively under-explored from this perspective, is that of goal setting and performance appraisal, which have the potential to provide a forum for individual employee voice within long-term employment relationships. In their review of the work on goal setting and appraisal, Locke and Latham (2002) stress the importance of information exchange as one of the key benefits of participatory goal setting in which employees provide a significant input into the identification and choice of suitable performance objectives for their jobs. Marsden (2007) explores such ideas as a process of integrative negotiation using two illustrations based on the Centre for Economic Performance (CEP) research on performance related pay. In the example of classroom teachers, altering the zone of acceptance meant shifting work priorities away from general educational goals towards an increased emphasis on pupil performance to help the school attract good applicants. The regular goal setting and appraisal process provided school managers with a forum in which these priorities could be discussed as well as measures of support that the school might give in order to assist their realisation. The CEP research suggested that appraisal did not function in this way in all schools, but it appeared to do so in a significant and growing minority. In a second example, among non-medical hospital staff, the issue was to move the zone of acceptance in the direction of more flexible working time. In an example from another CEP project, a number of Royal Mail managers used return-to-work interviews as an opportunity to change hitherto tolerated absence patterns both by explaining the need for changed attendance patterns and where necessary by offering organisational support to assist the change (Marsden and Moriconi, 2009).

Although it has not been customary to think of goal setting and appraisal, and return-to-work interviews as forums for employee participation, their potential should not be underestimated. Integrative negotiation involves information exchange, and the search for solutions that take account of both parties' interests. With the steady decline of collective forms of employee voice in recent decades in many countries, the forums in which changing work obligations can be negotiated collectively have been reduced. Because work performance is strongly dependent on individual employees' perception of their bargain with the employer, such individual discussions can, but may not always, provide a framework within which it is possible to encourage individual employee voice in relation to mutual obligations framed by the zone of acceptance.

#### **f) Organisational structures and participation**

Some organisations coordinate activity by means of architectures which allow very little employee control, whereas others are designed to allow a great deal of autonomy. If we consider the way in which organisations fulfil their function of coordinating human activity, there are two basic principles (Mintzberg, 1979; Lam, 2000). When firms take over the role of coordinating activity from markets, they may do so either by specifying the inputs that employees are expected to provide, or they may specify their expected outputs. In the first case, managers are directly involved in designing the work processes and procedures employees should follow. To do this, they would require detailed information and knowledge about all aspects of the work involved. In the second, they focus on objectives, which, following Simon's perspective, economises on the management knowledge required, but depends upon having appropriate incentives so that some key decisions about work

organisation are left to employees. The second principle relates to whether coordination is achieved by standardising employee activities, whether inputs or outputs, or whether it is done by a process of mutual adjustment. Again, following Simon, standardisation makes economic sense if demands are predictable to a large extent, whereas mutual adjustment of work roles and objectives is needed in more uncertain environments.

Combining these two principles, Lam and Mintzberg derive four organisational types: machine bureaucracy and professional bureaucracy, which respectively coordinate by standardising inputs (work roles) or outputs (associated with different skills). Moving away from standardisation, there are also two corresponding types of adhocracy, which use mutual adjustment: administrative adhocracy in which management determines the work roles, and operating adhocracy in which the focus is on coordinating outcomes or objectives. Following Lam's further development of the basic model, we can think of administrative adhocracy as illustrated by the 'J-form' (Japanese form) of organisation, and operating adhocracy as the kind of very fluid work patterns found in research and development activities where the impossibility of predicting the sought-for outcome with any precision means that work roles need to be highly adaptable.

In terms of the dimensions of employee participation, it is clear that these organisational models differ greatly with regard to job autonomy, job level decision-making, as well as the scope of jobs and the capacity for employees to adjust them in the light of new information. Machine bureaucracy is perhaps closest to the model that preoccupied the writers on alienation in the 1960s being the one in which employees enjoy the lowest levels of job discretion. Operating adhocracy, on the other hand, would seem closest to the ideal against which machine bureaucracy was judged. One line of thinking on participation then is to seek ways of giving workers more control over work inputs, and lesser standardisation of work roles, but while remaining within the same basic organisational model. Many of the classic studies and workplace experiments were set against the background of mass production systems in blue and white collar work (Berggren, 1992), as indeed are many of those reviewed in section 5 below.

Broadening the issue by considering a wider range of organisational structures not only helps to put many of the participation initiatives and studies into perspective, but it also opens up another way of thinking about the economic arguments for its benefits, and about voice mechanisms and how they function. Mintzberg sought to link the choice of organisational types to the degree of uncertainty in the economic environment: standardisation requires a stable environment so that economies of scale can be fully exploited. Research and development are highly uncertain environments both regard to the product, which may fail technically, and its market demand which may not materialise. The implication is that the economic benefits of greater employee autonomy and decision-making depend on informational factors and on environmental uncertainty. Hence firms may seek to adopt participation schemes within machine bureaucracies to mitigate their worst dysfunctions, but given the economic environment that led to the adoption of that model, there may be limited economic advantage for them to go further. In contrast, the structures based on mutual adjustment have many features of participation built into their architecture. Thus, administrative adhocracy, or J-form organisations, are built on the idea of fuzzy job boundaries, job rotation, and small group activities to solve problems as these are all activities that help to boost coordination by mutual adjustment – a process that requires a good deal of horizontal coordination.

#### **g) Participation and the knowledge economy**

Much of the early work on voice and participation was formulated in a static context. It is easy to imagine that gains from participation and knowledge-sharing in 'mass production' were likely to show diminishing returns as production systems bedded down. Indeed, such factors could explain the short duration of quality circles that has been commonly observed in

many western organisations. However, in the knowledge economy, it has been argued that the returns to knowledge development are increasing, or at least continuous, rather than decreasing. This is one of the foundations of dynamic capabilities at the level of the firm (Dosi et al., 2001), and of ‘endogenous growth’ at that of an economy (Romer, 1994).

The role of participatory organisation structures in knowledge development has been stressed for both blue collar and professional work. For the former, the argument has built on the idea that employees in all organisations have to deal from time to time with unusual and unanticipated operations. These give rise to opportunities for problem-solving, and learning. In traditional bureaucratic environments, such issues were often dealt with by technical experts, as was illustrated for French firms studied by Maurice, Sellier and Silvestre (1986). In such cases, any learning that results remains in the possession of the managerial and technical hierarchy. In contrast, if such tasks are entrusted to intermediate level blue and white collar workers in participatory structures, then the learning occurs at this level and workers develop their diagnostic and intellectual skills, in addition to the practical ones directly related to their jobs (Koike and Inoki, 1990; Koike, 2002). On the basis of their case study comparison of plants with similar technologies in Japan and some other South-east Asian countries, Koike and Inoki argue that by engaging workers in these problem-solving activities and broadening their experience by job rotation, the Japanese plants were able to achieve higher levels of labour productivity.

Problem-solving activities and work group relations also played a critical part in Orr’s (1996) study of Xerox photocopy engineers. Particularly important was the development of ‘non-canonical’ knowledge, the understanding of how the machines were used by clients as opposed to the ‘canonical’, codified knowledge of the repair manuals, and which the engineers shared among their teams by means of telling stories about different repair jobs they had undertaken (Brown and Duguid, 1991). According to the latter authors, the canonical knowledge was often organised in such a way that it directed attention away from the causes of malfunctions, and so impeded diagnosis and repair. Their account is consistent with Koike and Inoki’s theory of skill and knowledge development out of unusual tasks, that is, the tasks that were not programmed by formal organisations. Likewise, in their study of New York traders, Beunza and Stark (2003) highlight the importance of lateral connections across organisational functions, in this case across different specialist trading desks, as a source of new knowledge and new opportunities for arbitrage.

In many respects, these examples underline the economic importance of Mintzberg’s category of organisations based on ‘adhocracy’ and mutual adjustment rather than standardisation, and of how important for certain types of economic activity it is to build participation into organisation structures. Problem solving activities appear to work best where information flows freely and work roles are fluid, and where unusual tasks can be turned into learning opportunities: in an adhocracy. . However, which model a firm adopts may depend in part on how critical these are to provision of its key products and services.

#### **4. Diffusion and Organisational Ecology of Participatory Practices**

At the time of Levine and Tyson’s (1990) survey, a major intellectual puzzle was how to reconcile the apparent economic benefits of participatory arrangements as shown by most of the studies they reviewed, and their limited diffusion in the United States, and a number of other advanced industrial economies. One argument that they advanced, as did other authors such as Appelbaum and Batt (1994), was that participatory arrangements incur a high set-up cost for organisations with an uncertain economic return. To use the term of Bryson and Freeman (2008), they are high ‘transaction cost’ HR practices. There are several risks for lone innovators in an environment in which most firms use more traditional hierarchical methods. On seeing their investments in employee selection and training, competing firms may be

tempted to poach their labour. Managers looking to other firms for their career advancement may wish to demonstrate their talents to potential future employers by pursuing more widely recognised criteria of success. Unions may be hostile, and employees with the experience of more traditional management methods may be suspicious of their current managers' motives when introducing participation. Such factors raise the cost of introducing participation, and so discourage innovator firms.

Nevertheless, after a slow start in the US and some other countries, work organisation patterns that give more cope for employee participation have spread as shown by Osterman (2000), and in the EU, the European Working Conditions Survey (EWCS) shows a similar diffusion of team-working and job level participation practices. Nevertheless, the EU evidence also shows a great deal of diversity in the way these have been implemented. Lorenz and Valeyre (2005), using this survey, distinguish between job-level participatory structures that conform respectively to the 'lean' and the 'learning' models. In the former case, line management remains in close control, whereas in the latter, there is both more autonomy for team members and more scope is left in time management for employees to engage in problem-solving and to learn on-the-job. Britain, Ireland, Spain and to a lesser extent France tended to follow the 'lean' model, and Germany and the Scandinavian countries, the 'learning' model. Linked to these country differences, Lorenz and Valeyre find differences in the strength of employment protection and vocational training both of which may provide platforms for capitalising on learning opportunities, and national levels of R&D expenditures, their indicator of a knowledge-intensive economy.

## 5. Evidence

In this section, we present an overview of recent empirical studies linking participation to performance which seeks to update that of Levine and Tyson (1990). Our overview draws on a comprehensive sample of articles published in reputable refereed journals<sup>1</sup>, to render the task manageable and to assure quality. Other influential work published in books or any other kind of support was therefore excluded.

Following their example, we limit our coverage to quantitative studies. However, we introduce three main changes to their review. First, we decided to enlarge the range of performance measures considered, whereas their study focused on productivity effects. Indeed, most of the recent literature has analyzed the effects of participation on a wide variety of performance measures, productivity being just one of many other indicators that ought to be taken into consideration. Hence, we added a column specifying the type of performance indicator based on two criteria: objectivity and type of outcome. With regard to the first, company performance can be objective, gauged from externally recorded and audited accounts, or subjective, based on the company respondent's perception. As for the type of outcome, we draw on Dyer and Reeves's (1995) differentiation between organizational and financial measures.

Second, we observed a tendency to homogenization of research strategies and methods, common to the general management literature (Scandura and Williams, 2000). This led us to omit the column named 'type of study', since most articles in our review would fit into the 'econometric' category.

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<sup>1</sup> Journals included in the web of science. We covered major international journals known for their explicit HR focus (*Human Resource Management*, *International Journal of Human Resource Management*, *Personnel Psychology*), industrial relations journals (*Industrial Relations*, *British journal of Industrial Relations*) and some general management journals in which relevant HR-related papers were likely to be found (*Academy of Management Journal*, *Academy of Management Review*, *Administrative Science Quarterly*, *Journal of Management*, *Journal of Management Studies*, *British journal of Management*).

Third, there has been a certain debate around the individual or complementary effects of new work practices, discussing whether they have a stronger impact when implemented as bundles (Green et al., 2006; Wood and DeMenezes, 2008). Therefore, we added a column that examines whether participation has been assessed in the study as an individual practice or as an element in a system of innovative work practices. More than 60% of the articles applied the system's approach, supporting the complementarity or synergistic argument.

In accordance with Levine and Tyson (1990), articles were classified according to two key variables: type of participation (since representative participation was not studied in any of the articles, we only considered consultative, substantive and ownership participation) and effects of participation on performance. We encountered two main classification difficulties. On the one hand, the terminology on participation varies noticeably. We decided to include in the consultative category all practices labelled and described as *communication, information sharing, guidance, information meetings* or *grievance procedures*. Participation was considered substantive when portrayed as *empowerment, self-directed teams, employee autonomy, decentralized or participative decision making, work enrichment* or *job design*. Finally, ownership was associated with the terms *employee share options, employee ownership and employee stock ownership* and *financial participation*. When an article analyzes the effects of several forms of participation, it is classified on the highest level of participation tested. However, following Levine and Tyson (1990) employee ownership is regarded individually no matter what other kinds of participation were included in the study.

On the other hand, with regards to the effect of participation on performance, in some articles the results obtained differed for different performance indicators, for instance, participation was positive for quality but negative or insignificant for profitability. In those cases, the article was categorized as 'inconclusive'. Huselid (1995) is an example of this problem. While being a seminal research piece and one of the most cited articles in the HRM literature, Huselid's results are different depending on the performance indicator considered. Whereas the practices labeled as 'employee motivation' (where participation is included) are positive and significantly related to productivity and Tobin's Q, they are negatively but non-significantly related to return on assets and turnover: therefore, Huselid (1995) is classified as 'inconclusive' in our table.

Several conclusions can be drawn from this table. To start, almost 80% of the reviewed studies used subjective indicators of performance. For one thing, in the absence of independently sourced measures fitting the necessities of their research topic, researchers opt to use perceived indicators they can gather from respondents. Some highly used databases such as WERS, rely mainly on subjective measures. For another, there is evidence that objective and subjective measures are correlated and that their relationship to a wide range of independent variables is identical (Wall et al., 2004). In terms of level of outcomes, organizational measures are more commonly used than financial measures. This is consistent with the argument that participation and other HR practices have first an effect on indicators such as productivity, hence the space of time necessary to observe their relationship is shorter and less influenced by other parameters (Faems et al., 2005). Still, more than half of the articles we reviewed combine both methods in order to attain more powerful results. As far as the type of participation tested is concerned, we observe a prevalence of substantive participation. This goes in line with the above discussed theoretical issues, the higher the degree of worker involvement and influence, the greater the likelihood that those initiatives will have an influence on performance.

When compared to Levine and Tyson's (1990) table, the proportion of non-significant and inconclusive articles may be striking. This might be a consequence of the classification system above explained. Indeed, studies on the effects of participation are following the general trend in the management literature to use more than one outcome variable (Scandura and Williams, 2000). The increasing number of indicators utilized in the studies is therefore added to the usual measurement difficulties and the combination of both may be leading to

inconclusive results. Although the search for more powerful results is commendable, the use of several performance indicators multiplies the number of causal relationships by which participation may influence performance. This question is familiar in the literature on union effects on performance: for example, unions may simultaneously raise performance through the beneficial effects of voice, but reduce profits by bargaining for a larger share of the surplus. Arguably, each of these relationships would need to be specified separately.

Another possible explanation to this lack of significance and conclusion relies in the movement towards institutional isomorphism; that is 'a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions' (DiMaggio and Powell, 1983: 149). Management practices are institutionalized when organizations implement them insistently without clear indicators of their contribution to efficacy and efficiency (Tolbert and Zucker, 1983). It is conceivable that, initially, participation schemes were implemented because they reflected specific needs of the organisation, and consequently had a real effect on its performance. However, once participation becomes a general practice that is required to attain social legitimacy, firms may introduce schemes without considering their true suitability to their needs, hence the increasingly common non-significant performance effect as it becomes more widespread.

Also noticeable is the increase of contingent and mediated models. Indeed, a growing number of papers are *opening the black box*, proposing the effects of participation on performance are moderated or mediated by other variables that had not been taken into consideration, such as technology (Larrazza et al., 2006), organizational commitment (Paul and Anantharaman, 2003), or strategy (Guthrie et al., 2001).

Beyond the features captured in the table, this literature overview allowed us to identify certain interesting trends in the analysis of the effects of participation on performance. On the one hand, the studies have evolved in terms of their context and location. Whereas before 2000 most studies were undertaken in the US and the UK, lately the proportion of empirical work located in other geographical contexts has increased significantly. For instance, recent studies have been conducted in Europe, Asia and Africa<sup>2</sup>. In general, the results of these studies indicate the importance of contextual factors, and so do not corroborate the idea that some human resource management practices may be universally applicable (Bjorkman and Xiucheng, 2002). Moreover, interest in sectors outside manufacturing has also increased in the last decade. Both services (Bartel, 2004; Paul and Anantharaman, 2003) and public services (Tessema and Soeters, 2006) have started to capture attention. However, an issue that does not seem to have evolved much is the continued focus on large firms. Indeed, small and medium enterprises remain somewhat neglected in this literature (Faems et al., 2005). The predominance of quantitative and cross sectional studies over qualitative and longitudinal ones appears to be another structural characteristic of this literature. Even though the need for the two latter has been extensively claimed (Guest, 1997; Bjorkman and Xiucheng, 2002; Thompson, 2007) the difficulties of research access, particularly for longitudinal studies, seem to be delaying any progress.

On the other hand, few studies test explicit hypothesis directly derived from a theory. Indeed, following Fleetwood and Hesketh (2006) this field has to confront the problem of under-theorization and stop presuming that 'theory will emerge and develop via more, and/or better, empirical work'. Still, some conceptual frameworks are presented to explain the study's findings, as part of a general rationale. The resource based view is certainly the most recurrent of those frameworks and states the firm is a bundle of distinctive resources that are

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<sup>2</sup> Greece (Apospori et al., 2008; Vlachos, 2008; Katou and Budhwar, 2006), Ireland and the Netherlands (Boselie et al., 2001), Spain (Saa-Pérez and García Falcón, 2002; Larrazza et al., 2006), France (Guerrero and Barraud-Didier, 2004), Belgium (Faems et al., 2005), Eritrea (Ghebregiorgis and Karsten, 2007; Tessema and Soeters, 2006), The Philippines (Audea et al, 2005), India (Som, 2008), China (Ngo and Loi, 2008; Zheng et al., 2006), Pakistan (Khilji and Wand, 2006), etc.

key to develop competitive advantage, hence to increase performance (Wernerfelt, 1984; Barney, 1991). In this sense employees are considered as essential resources that need to be developed, protected and maximally deployed. Nevertheless, the RBV, by its own description is a 'view' and not a theory, so it is difficult to derive precise, testable, hypotheses. Although it has in recent years been associated more with a managerial than an economic perspective, yet it is related to economic approaches discussed in this chapter. Common themes include the individualization of the employment relationship, and eventually in the separation of human resource management performance enhancing practices from collective bargaining issues, which goes in line Freeman and Lazear's study. Moreover, the RBV highlights the greater potential of intangible and knowledge based resources in developing competitive advantage (Barney, 1991; Peteraf, 1993). A lot of these resources belong to employees and their tacit nature makes it difficult to exploit them without employee participation. As the 'exit, voice and productivity' theory suggested, the organization can benefit greatly from the information obtained from employees. The RBV explains how firms that are able to effectively acquire that information can gain a competitive advantage over their competitors, but it gives less attention to how to resolve some of the contractual difficulties inherent in the employment relationship, the conflicts of interest, and the problems of information sharing, and so on.

Over a decade ago, Guest (1997) stated theory should be reintroduced into the empirical debate in order to further develop the discipline. The theories linking participation and performance discussed in this chapter could certainly represent a contribution in that sense, providing future empirical studies with a more comprehensive framework of analysis. The increasing frequency of non-conclusive results as to the effect of participation on performance, suggests that improving empirical measures, for instance additional performance measures, may not be the best route to more conclusive results. However, we find relevant the fact that, the context in which the studies are undertaken is being taken into consideration. The introduction of variables such as culture, institutional context, strategy or sector may complicate the research design, but nevertheless move the field towards a better understanding of the relationship between participation and organisational performance.

## 6. Conclusions

In this chapter, we consciously speak of economic approaches in the plural because it is misleading to force all the arguments covered in this short review into a single category. Concern about work organisation and its effects has been a major issue within economics for a very long time. Lamb's (1973) study shows that Adam Smith himself was keenly aware of the two faces of the famous pin factory example. *Work in America* merely showed that two hundred years later these tensions had still to be resolved. The approach of this chapter has been to look at participation against the canvas of the employment relationship, its organisation, core processes, and their outcomes for organisational performance and social well-being.

Three key features differentiate these economic approaches from those of other disciplines: participation takes place within a market-exchange relationship, in which there are simultaneously joint and diverging interests; the underlying contract is open-ended with regard to its content; and there are important information asymmetries inherent in that relationship. The open-ended nature of the employment relationship places the 'zone of acceptance' at its core, and participation can be understood as one of the processes by which the right to direct labour, the 'right to manage', is altered, and by which the zone itself may be adjusted from time to time. The more strongly the 'right to manage' is asserted, the more specialised managers become, and so the more acute are the problems of informational asymmetry. These can impede effective coordination, thus reducing organisational

performance, and they may deprive management of sources of ideas for innovations. This said, these economic approaches need to be seen as complimentary to other perspectives outlined in this volume.

There are many bridges to the other disciplines. Focusing on participation as a feature of the 'zone of acceptance' opens the way to considering how this is affected by other social processes, such as employment law, and employment relations. Legislation and collective agreements represent one type of channel which often implies a degree of compulsion. However, the institutional context may also affect the availability of alternative options for organisations. For example, if managers can dismiss employees easily, they may have less incentive to motivate them by means of interesting work – hence Lorenz and Valeyre's observation that the richer forms of participatory work organisation were to be found in economies with stronger labour institutions. The behaviour of competitor firms may also affect the choices of individual firms, as Levine and Tyson and Appelbaum and Batt observed, as poaching trained employees can undermine investments in employee participation programmes. The heritage of workplace relations can also affect the ability to develop participatory management. For reasons of low trust or adversarial relations, the zone of acceptance may have become very restricted in its scope, or rigid in relation to its boundaries. This could increase an organisation's need for more participation, but it would also make it more difficult to operate. Similar factors could influence the degree to which peer group pressures operate to enhance or to restrict performance within work teams. The type of coordination system used by the organisation can also be a significant factor, as suggested by Mintzberg's typology, although there are other typologies that could lead to the same conclusion. Much of the discussion of increased participation has taken place against a background of coordination strategies based on standardisation and in which practices such as team working, job rotation, and job discretion are used in order to address problems of that approach. Yet in models that use mutual adjustment, these practices are often built into the organisational structure so that there is no need for special schemes.

One of the most striking findings of the survey of empirical studies included in this chapter is that it remains true that many more quantitative empirical studies show positive than negative effects of participation on organisational performance. Nevertheless, the picture is less clear-cut than it was at the time of Levine and Tyson's survey in 1990. This appears to be because of an increase in the studies counted as showing mixed or inconclusive results. There are several possible reasons for this. Some relate to measurement. Our survey includes a wider range of performance indicators than did Levine and Tyson, who focused on productivity. It is clear that the performance outcomes are sensitive to the type of measure chosen. Sometimes studies that show positive effects on productivity fail to show similar effects on financial performance measures. Another factor is that behind each process measure there can be big variations in design. For example, work on the British Workplace Employment Relations Survey shows that a measure such as 'team working' may conceal great variations in team autonomy (Kersley et al, 2006: 90). Thus, changes in the mix of degrees of autonomy within the overall population of participation schemes could affect comparisons. Country coverage could also be a factor. Other factors which could account for less positive results this time concern the institutionalisation of participation and its related practices as 'best practice', and in the types of organisations adopting them. All of these would caution against drawing strong conclusions from changes between the two surveys of studies. Nevertheless, the overall finding remains that quantitative empirical studies showing positive results continue to outnumber strongly those showing negative results.

**Table 1. Recent Studies of the Performance Effects of Participation**

**PERFORMANCE EFFECTS OF PARTICIPATION**

Type of participation	Positive			Non significant or inconclusive			Contingent or mediated			Negative		
	Article	PI	Prac	Article	PI	Prac	Article	PI	Prac	Article	PI	Prac
Consultative	Apospori et al. (2008)	Sb / O,F	I	Bartel (2004)	Ob / F	I	Selvarajan et al. (2007)	Sb / F	S	Faems et al. (2005)	Ob / O,F	I
	Banker et al. (1996)	Ob / O	I	Chan et al. (2004)	Sb / O,F	S	Wright et al. (2003)	Ob / O,F	S			
	Björkman and Xiucheng (2002)	Sb / F	S	Gooderham et al. (2008)	Sb / F	I						
	Katou and Budhwar (2006)	Sb / O	S	Wood and DeMenezes (1998)	Ob,Sb/O,F	S						
	Michie and Sheehan (2005)	Ob/ O,F	I/S	Wood and DeMenezes (2008)	Ob, Sb / O	I/S						
Substantive	Ahmad and Schroeder (2003)	Sb / O	I	Bryson et al. (2005)	Sb / O,F	I	Datta et al. (2005)	Ob / O	S	McNabb and Whitfield (197)	Sb / F	I
	Akhtar et al. (2008)	Sb / O,F	I	Cappelli and Neumark (2001)	Ob / O,F	I	Guerrero and Barraud (2004)	Ob,Sb/O,F	I/S			
	Arthur (1994)	Sb / O	S	Delaney and Huselid (1996)	Sb / O,F	I	Guthrie et al. (2002)	Sb / O	S			
	Bae and Lawler (2000)	Sb / O,F	S	Fey et al. (2000)	Sb / O,F	I	Hoque (1999)	Sb / O,F	S			
	Bae et al. (2003)	Sb / F	S	Fey and Björkman (2001)	Sb / O,F	I/S	Larrazza et al. (2006)	Sb / O	S			
	Batt (2002)	Ob / O,F	I	Guest et al. (2003)	Ob,Sb/O,F	S	Ordiz and Fernández (2005)	Ob,Sb/ O,F	S			
	Horgan and Mühlau (2006) <sup>3</sup>	Sb / O	S	Harel and Tzafrir (1999)	Sb / O,F	I/S	Paul and Anantharaman (2003)	Sb / O,F	I			
	Ichniowski et al. (1997)	Ob/ O	S	Horgan and Mühlau (2006)	Sb / O	S	Vanderberg et al. (1999)	Ob / O,F	S			
	Katou and Budhwar (2006)	Sb / O	S	Huselid (1995)	Ob,Sb/O,F	S						

<sup>3</sup> Horgan and Mühlau (2006) test the same hypothesis for two different samples, one in Ireland and one in the Netherlands. The later showed a positive relationship between participation and performance, the former a non-significant one. Therefore, the article appears in both the positive and the non-significant table.

	Kaya (2006)	Sb / O,F	S	Huselid et al. (1997)	Ob / O,F	S						
	MacDuffie (1995)	Ob, Sb/ O	I	Jayaram et al. (1999)	Sb / O	I						
	Ordiz and Fernández (2005)	Ob,Sb/ O,F	S	Kalleberg and Moody (1994)	Sb / O,F	I						
	Park et al. (2003)	Sb / O,F	S	Khatri (2000)	Sb / O,F	S						
	Riordan et al. (2005)	Ob,Sb/ O,F	S	Orlitzky and Frenkel (2005)	Sb / O	S						
	Vlachos (2008)	Sb / O,F	I	Ramsay et al. (2000)	Sb / O,F	S						
				Richard and Johnson (2001)	Ob,Sb /O,F	S						
				Tsai (2006)	Sb / O,F	I						
				Way (2002)	Ob / O	S						
				Wood et al. (2006)	Sb / O	I						
				Wright et al. (1999)	Ob / F	I						
				Zheng et al. (2006)	Sb / F	S						
Ownership	Bae et al. (2003)	Sb / F	S	Wood and DeMenezes (1998)	Ob,Sb /O,F	S	Guthrie et al. (2002)	Sb / O	S	Faems et al. (2005)	Ob / O,F	I
	Gooderham et al. (2008)	Sb / F	I	Ramsay et al. (2000)	Sb / O,F	S						
	Paul and Anantharaman (2003)	Sb / O,F	I									

Performance indicators:

*Ob*: Objective

*Sb*: Subjective

*O*: Organizational (absenteeism, turnover, quality, productivity, etc.)

*F*: Financial (sales, profits, share price, etc.)

Practices

*I*: Individual (the relationship between participation and performance has been directly analyzed)

*S*: Systems (participation is tested as a element of a system including other practices)

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