

# 'Tying the manager's hands': constraining opportunistic managerial intervention

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We discuss and examine empirically a firm-level equivalent of the ancient problem of 'tying the King's hands', namely how to avoid managerial intervention that is undertaken to reap private benefits but is harmful to overall value creation, that is, 'managerial opportunism'. The link from managerial intervention to firm-level value-creation is moderated by employee motivation. Thus, intervention in the form of managers overruling employees or renegeing on delegation may demotivate employees, particularly when the intervention is perceived as being unfair, undertaken for personal gain, etc. We argue that a number of mechanisms, such as managers staking their personal reputation, employees controlling important assets, strong trade unions, etc. may function as constraints on managerial proclivities to intervene, thus reducing the problem of managerial opportunism. We derive four hypotheses from these ideas, and test them, using path-analysis, on a rich dataset, based on 329 firms in the Spanish food and electric/electronic industries.

*Key words:* Delegation of discretion, Employee motivation, Firm performance, Managerial intervention

*JEL classifications:* M12, M21, M54

## 1. Introduction

In this paper, we frame and examine empirically a firm-level equivalent to the ancient problem of 'tying the King's hands' (Root, 1989). A key theme in much work on the theory of the firm (e.g., Coase, 1937; Malmgren, 1961; Casson, 1994; Williamson, 1996; Foss, 1997; Wernerfelt, 1997) is that the exercise of managerial authority in response to changes in the environment provides a reason why firms exist. Thus, the implicit thrust of most of this work is that managerial intervention is always beneficial.<sup>1</sup> However, in actuality,

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<sup>1</sup> Only a handful of contributions have explicitly considered the opposite possibility (Dow, 1987; Kreps, 1990). For example, Dow explicitly discusses 'managerial opportunism'. Of course, in a broad sense, 'managerial opportunism' is not neglected, as it plays (in the form of managers' moral hazard) a major role in the fields of corporate finance and corporate governance (e.g., Noe and Rebello, 1996). However, we are taken up with managerial opportunism relative to employees (rather than shareholders), and this is clearly a neglected issue.

managerial intervention will typically override existing instructions of employees. Moreover, in firms where employees are given considerable discretion, managerial intervention may amount to overruling decisions that employees have made on the basis of decision rights that have been delegated to them. This suggests that employee utility may be harmed by managerial intervention, and that net losses from such intervention are conceivable.

As Oliver Williamson (1996, pp. 150–1) points out, the option to intervene ‘can be exercised both for good cause (to support expected net gains) and for bad (to support the subgoals of the intervenor)’. The reason why not all managerial intervention is with good cause is that it may be difficult to verify the nature of the cause. Moreover, promises to intervene only with good cause are hard to make credible, as they are not enforceable in a court of law, so that a problem of ‘*credibly* [promising] to respect autonomy save for those cases where expected net gains to intervention can be projected’ (Williamson, 1993, p. 104) remains. An important puzzle therefore concerns how managerial intervention for a good cause (i.e., value-increasing intervention) may be promoted, while avoiding intervention for a bad cause (i.e., value-destroying intervention).<sup>1</sup>

The contribution of the present work to the understanding of this problem lies in examining the forces that may constrain intervention for a bad cause. Our key point of departure is transaction cost economics. Like Williamson (1996), we are concerned with the incentive aspects of internal organisation.<sup>2</sup> However, we also rely on other streams of research in organisational economics (e.g., Milgrom, 1988; Jensen and Meckling, 1992; Bijl, 1996; Milgrom and Roberts, 1996; Aghion and Tirole, 1997; Baker *et al.*, 2002), particularly transaction cost economics (Williamson, 1993, 1996). Moreover, in order to lend further support for our arguments, we also draw on ideas about psychological contracts in organisations (Argyris, 1960; Rousseau, 1989; Coyle-Shapiro and Kessler, 2000; Tepper and Taylor, 2003), extrinsic and intrinsic motivation (Osterloh and Frey, 2000), and psychological research on decision-making (e.g., Bazerman, 1994). This eclecticism is motivated by two observations: First, the theory of hierarchical failure in organisational economics is substantially less developed than the theory of market failure. Theory development is required, and a certain measure of eclecticism is usually warranted in the early stages of theoretical development. Second, with respect to understanding behaviour and decision-making in organisations, organisational economics is arguably too narrow an approach (cf., Baron and Kreps, 1999). It has next to nothing to say about a host of psychological and sociological issues, some of which are important to understanding the limits to internal organisation.

Our argument begins from the observation that most firms rely on the use of both managerial authority and employee discretion, that is, the ability of employees to control resources including their own human capital.<sup>3</sup> While authority is needed, for example, to manage residual interdependencies, discretion may be rationally delegated to employees to

<sup>1</sup> Milgrom and Roberts (1996, p. 168) argue that ‘the very existence of centralised authority is incompatible with a thorough going policy of efficient selective intervention. The authority to intervene inevitably implies the authority to intervene inefficiently’. While we agree that ‘first-best intervention’ is strictly impossible, ‘second-best intervention’ is feasible.

<sup>2</sup> While we do not explicitly make use of the standard transaction cost economics terminology of hold-up and asset specificity (mainly because this terminology has been developed for the analysis of market, rather than organisational, failure), there are nevertheless strong overlaps. Thus, the renegeing of internal, implicit contracts that we address are akin to hold-up in market settings, and gives rise to similar incentive effects (i.e., inefficient investments).

<sup>3</sup> Evidently, this is not the case of one-person firms. Moreover, in some partnerships and co-operatives the distinction between managerial authority and employee discretion does not come into force.

the extent that it stimulates motivation and fosters local learning and the use of local knowledge. A considerable body of work in organisational economics has addressed issues that relate to the distinction between authority and delegation, such as the optimal span of control (Williamson, 1970), the design of information structures (Galbraith, 1974), and optimal delegation given the moral hazard problem (Jensen and Meckling, 1992; Armstrong, 1994; Aghion and Tirole, 1997).

In such treatments, authority is a matter of control and the giving of orders. Managers may, of course, make mistakes (e.g., Coase, 1937; Williamson, 1970), but managerial action is usually seen as beneficial. Other issues that are implied by the distinction between authority and discretion have been given less attention, notably how the exercise of authority may harm motivation, diminishing the beneficial effects of discretion.<sup>1</sup> From this perspective, a basic problem in organisational design is that beneficial delegation is hard to sustain under the property rights structure characterising the firm in which delegated decision rights are always ‘loaned, not owned’ (Baker *et al.*, 1999). Those who hold ultimate decision rights (i.e., authority) may use these to renege on delegation and/or overrule decisions made on the basis of delegated rights. This harms employee motivation and may have negative firm-level effects when employees put in less effort and/or undertake less investment in specific human capital. However, various mechanisms, such as implicit contracts (Kreps, 1990; Baker *et al.*, 1999), explicit credible commitments (Brockner *et al.*, 1992; Moe, 1997), or organisational structure (Aghion and Tirole, 1997) may reduce the incidence and severity of harmful managerial interventions.

The paper is organised as follows. We go beyond the usual economics treatment of authority as the picking of well-defined actions from an employee’s action set (cf., Coase, 1937; Simon, 1951) and argue that authority also includes the power to delegate and constrain discretion, as well as the ability to veto subordinates’ decisions. In this understanding, efficient exercise of authority obtains when discretion is delegated to employees so that the costs and benefits of delegation are equal on the margin. However, motivational problems may arise when managers exercise authority by renegeing on the delegation of discretion or overruling employees. It is often in an organisation’s interest to avoid such managerial intervention. In fact, there are various mechanisms that may credibly constrain the flexibility of managers to intervene opportunistically. Some of these are external to the firm (e.g., tight labour and capital markets, strong labour unions), and some are internal to the firm, such as credible commitments undertaken by managers themselves (e.g., managers staking personal reputations). A number of hypotheses are derived and tested on data from the Spanish electronics and food industries.

## **2. Managerial opportunism, delegation and employee motivation**

### *2.1 Authority and delegation of discretion*

Simon (1951) provides a classic notion of authority, one that has arguably been dominant in economics. Authority is defined as the situation in which a ‘boss’ is permitted by a ‘worker’ to select actions,  $\mathbf{A}^0 \subset \mathbf{A}$ , where  $\mathbf{A}$  is the set of the worker’s possible behaviours. For the worker to accept the assignment, it must lie within his ‘zone of acceptance’. A limitation of Simon’s notion of authority is that it seems to be based on the boss having all

<sup>1</sup> However, see Aghion and Tirole (1997) and Baker *et al.* (1999, 2002) for organisational economics work that has a bearing on these issues.

the information, the worker being merely a passive instrument who reacts to instructions based on this information. This is a notion that does not square easily with the increasing importance of partly self-managing knowledge-workers in modern production (e.g., Purser, 1998).

Simon (1991, p. 31) himself later noted that authority may be understood more broadly, namely as a command that takes the form of a result to be produced, a principle to be applied, or goal constraints, so that '[o]nly the end goal has been supplied by the command, and not the method of reaching it'. However, even this is arguably too narrow. Usually, some aspects of 'the method of reaching' an end goal are specified, so that employees are seldom granted full discretion. Indeed, a function of authority is the placing of restrictions on the decision rights that are granted to employees with respect to *how* they reach an end goal (Milgrom, 1988; Barzel, 1997; Holmström, 1999). This function of authority is exercised in order to avoid the costs associated with unwanted externalities that may arise from employee discretion, such as moral hazard, coordination failures (e.g., scheduling problems, duplicative efforts, cannibalisation of product markets, etc.).

Discretion may be defined as the ability of an agent to exercise control over an asset (Barzel, 1997). Managers may formally delegate discretion to employees for various reasons. For example, if an employee is better informed than the manager with respect to how certain tasks should be carried out, and this knowledge is costly to communicate (Casson, 1994; Melumad *et al.*, 1995), efficient co-location of decision-making rights and knowledge requires that the employee is given discretion with respect to how to use his/her expertise in problem solving (Jensen and Meckling, 1992). Also, delegation may be undertaken for motivational rather than knowledge-based reasons. Thus, literatures in social psychology (probably beginning with Roethlisberger *et al.*, 1939), as well as the more managerial literature on 'empowerment' (Conger and Kanungo, 1988; Thomas and Velthouse, 1990; Gal-Or and Amit, 1998), suggest that increasing the delegation of discretion to employees often 'raises the perceived self-determination of employees and therewith strengthens intrinsic motivation' (Osterloh and Frey, 2000, p. 543). In turn, this may lead to an increase in creativity in the pursuit of goals.<sup>1</sup> Expert knowledge is better utilised and learning is fostered (Mudambi *et al.*, 2003). In contrast, *decreasing* the level of delegated discretion may crowd out intrinsic motivation, particularly when this frustrates the employee's 'beliefs regarding the terms and conditions of the reciprocal exchange agreement' (Rousseau 1989, p. 23). These arguments suggest the following hypothesis:<sup>2</sup>

**Hypotheses 1:** *Employee motivation depends positively on the degree of delegation of discretion.*

<sup>1</sup> Some reservations and potential critiques should be noted at this point. First, it is conceivable that discretion may harm motivation if employees do not have the knowledge or personality to command such discretion. Second, employees may feel uncomfortable with increased discretion because it may imply responsibilities without additional pay or benefits. In short, employees need to have not just the opportunity, but also the ability and incentive to engage in self-management (cf., Mowday *et al.*, 1982). We hypothesize, however, that on the aggregate (firm) level, the positive motivational effects of increased delegation dominate the negative ones, and that opportunity to engage in self-management is at least to some extent matched by a corresponding ability to do so.

<sup>2</sup> Assuming a linear relation between delegation and motivation is clearly not uncontroversial. Thus, it may be argued that the relation hypothesised in Hypothesis 1 is concave rather than linear. For example, beyond a certain threshold, more delegation of discretion may harm motivation. We therefore tested whether the inclusion of the squared variable for delegation improves the goodness of fit and provides a significant coefficient. However, it turns out that the coefficients are not significant and that, although the absolute and incremental goodness of fit increases slightly, the parsimonious goodness of fit decreases considerably. We therefore opted for not including this squared variable.

## 2.2 *Optimum delegation*

The motivational effects of increased delegation arguably give rise to improved employee productivity. Partial evidence for this is the finding that giving R&D personnel the right to share research findings with others and to publish such findings increase R&D productivity (McMillan *et al.*, 2000; Mudambi *et al.*, 2003). In turn, increased employee productivity causes firm performance to improve. Thus, delegation is associated with various firm-level benefits.<sup>1</sup>

With respect to the *costs* of delegation, these are treated in the rich agency literature on optimum delegation (e.g., Jensen and Meckling, 1992; Armstrong, 1994; Aghion and Tirole, 1997; Gal-Or and Amit, 1998). A general conclusion is that delegation creates opportunities for employees to collect informational rents and/or engage in morally hazardous activities. Roughly, optimum delegation obtains when the incremental gain from making use of expert knowledge equals the incremental costs from loss of control. The cost caused by control loss is ultimately rooted in the differing preferences of managers and employees in the relevant hierarchy and the costs of monitoring relevant aspects of the employee's activities.

Although the agency approach is useful for framing the cost aspects of delegation, it has certain limitations. First, it builds on an assumption of complete contracting, which makes it hard to provide a rationale for authority (Hart, 1995), except in the limited sense of monitoring. Second, it abstracts from those costs of delegation that are not the result of moral hazard, but rather of mistakes, sub-goal optimisation, duplicative efforts, wrong timing of decisions and erroneous co-location of knowledge and decision rights made by entirely well-intentioned employees (cf., Hendry, 2002), and which may be reduced by means of the exercise of authority.

The trade-off associated with the optimum level of delegation involves numerous variables that may all change over time. Given this, a key management task arguably is to exercise authority in such a way that the organisation gropes towards optimum delegation, and to track the optimum level of delegation in the face of changing contingencies. Placing authority and discretion in separate analytical boxes is, therefore, a somewhat questionable procedure. This is also the case because the interdependence between authority and discretion gives rise to distinct motivational and incentive problems when employees expect that they may be overruled by managers or these may renege on delegation.

## 2.3 *Managerial intervention and changes in delegation*

As discussed earlier, there are both positive and negative implications for organisations in delegating discretion to employees. Thus, firms confront a basic trade-off in the choice of delegation. Once implemented, and in the absence of managerial intervention, optimum delegation will continue as long as contingencies, such as technology, tastes, competitive conditions etc. remain stable. Given this, (optimum) delegation may (in fact, should) change as a response to changed external contingencies (Lawrence and Lorsch, 1967; Casson, 1994).

<sup>1</sup> There are more direct reasons why delegation may improve firm performance. Thus, employees may be better informed than managers with respect to how certain tasks should be carried out (Jensen and Meckling, 1992). If such knowledge is costly to communicate, efficient co-location of decision-making rights and knowledge then requires that employees are delegated discretion with respect to how they use their expertise in problem solving (Casson, 1994; Melumad *et al.*, 1995). Furthermore, it is arguable that delegating discretion to employees will not only lead to a better use of existing knowledge, but also to the discovery of new knowledge that would not have been discovered in the absence of delegation (Miles *et al.*, 1997).

Because complex interdependencies still exist under delegated discretion, major changes in contingencies are likely to change the optimum degree of delegation.<sup>1</sup> Many contingencies cannot be foreseen, or it is too costly to try to do so (Malmgren, 1961; Williamson, 1996). Even if they can be foreseen, their impact on the preferred level of delegation may be difficult to specify *ex ante*. This amounts to a need for *ex post* decision-making (Coase, 1937; Malmgren, 1961; Williamson, 1996). While such decision-making can be arranged in a number of different ways, centralised decision-making in the form of authority becomes a preferable mechanism of coordination when those who may hold authority have a superior understanding of how contingencies influence interdependencies and the preferred degree of delegation (cf., Demsetz, 1991; Casson, 1994). The assumptions that (1) managers usually hold such knowledge and (2) will act on it in a manner that is beneficial to the firm has been made implicitly as a matter of routine in the theory of the firm literature. The latter assumption is closely related to the neglect in most of this literature of managers' opportunism.

Williamson's (1996) distinction between intervention for a good cause and intervention for a bad cause does much to dispel the above naïve assumptions. Thus, the notion of intervention for a bad cause explicitly introduces managerial opportunism, and therefore suggests that there are costs as well as benefits to managerial authority. One particular manifestation of such managerial opportunism is renegeing on delegation and/or overruling employee decisions made on the basis of delegated discretion. This is akin to the way that opportunism is usually treated in the transaction cost economics literature, because there it is conventionally portrayed in terms of contractual renegotiation or breach of contract. Renegeing on delegation or overruling employees can similarly be understood in terms of renegeing on (non-written) contracts with employees or breaching such contracts. Such actions affect employee motivation.

#### *2.4 Managerial opportunism and employee motivation*

As a huge organisational behaviour literature suggests, employee motivation may be badly harmed by managerial intervention, particularly when such intervention is perceived as being undertaken for bad reasons. The reasons why employee motivation can be harmed by managerial intervention may be usefully classified as relating to intrinsic and extrinsic motivation (Deci, 1975), respectively.

Thus, managers may delegate discretion because they want to exploit and stimulate *intrinsic* motivation. It has been argued that certain activities (e.g., certain types of sharing behaviour and creativity) are best undertaken by employees who are intrinsically motivated (e.g., Baron and Kreps, 1999; Osterloh and Frey, 2000). Renegeing on delegation or overruling employees may reduce intrinsic motivation because it reduces employees' room to manoeuvre and their self-determination (Baron and Kreps, 1999). *Extrinsic* motivation is relevant to the extent that delegation of discretion makes it possible for the employee to tie efforts and rewards more closely together. Reducing the delegation of discretion under these circumstances may reduce motivation for three reasons. First, it becomes more difficult to reach the performance goal for which rewards are paid. An example is closing

<sup>1</sup> For example, changes in the firm's overall strategy may require the building-up of a new product platform. Such new technologies typically require the delegation of more discretion to designers and engineers in order to stimulate exploration through wide bandwidth communication channels. Or, a change in the competitive conditions, such as an impending price war, may dictate that discretion be diminished in order to curb slack and reduce costs.

down an ongoing project in which employees have a direct financial stake. Second, reaping private benefits may become more difficult, for example, because on-the-job-consumption is constrained. Third, sunk cost investments in human capital may be less valuable, because the reduction in delegation of discretion implies that certain activities cannot be pursued to the same extent any more.

Cognitive forces may interact with motivational forces to reinforce the destructive consequences on employee motivation of managerial intervention. Thus, Heath *et al.* (1993) argue that, in an employee relationship, employees develop implicit and explicit expectations about the contract governing the relationship, and particularly about the benefits that they believe they deserve under the implicit contract, that is, their ‘entitlements’. Such expectations may be represented by ‘status quo’ points, that is, what employees believe are their entitlements. The discretion that is delegated to employees may become part of their perceived entitlements, and negative motivational consequences follow from managerial intervention that interferes with these entitlements. Other areas of psychological research point to the phenomenon of loss aversion, that is, a loss relative to a status quo point is seen as more undesirable than a gain relative to the same point is seen as desirable. This means that employees will develop a bias against changing the level of discretion in a downwards direction, and that they can be expected to resist such changes, as well as suffer a loss of motivation if the change is, in fact, forced upon them.

A substantial body of work in organisational behaviour on psychological contracts speaks directly to the issues under consideration here. Thus, this kind of work suggests that managerial intervention that is perceived by employees as being unfair, arbitrary and in other ways breaks with what is perceived as established psychological or implicit contracts (i.e., it is opportunistic), it is very likely to harm motivation (Rousseau, 1989; Rousseau and Parks, 1992).<sup>1</sup> Rousseau and Parks (1992, pp. 36) state that ‘contract violation erodes trust [and] undermines the employment relationship yielding lower employee contributions (e.g. performance and attendance) and lower employer investments (e.g. retention, promotion)’. In particular, organisational citizenship behaviour—that is, employee behaviour that promotes organisational efficiency but is not (perhaps, cannot be) explicitly recognised by an organisation’s reward system—may suffer from opportunistic managerial intervention (Robinson and Morrison, 1995). Empirical work has reached similar conclusions (Robinson, 1996; Foss, 2003). The above reasoning is summed up in the following hypothesis:

**Hypotheses 2:** *Employee motivation varies negatively with opportunistic managerial intervention.*

For the firm, this is a problem to the extent that loss of motivation leads to employees cutting back on effort, and on firm-specific investments in human capital.<sup>2</sup> This implies the following hypothesis:

**Hypotheses 3:** *Overall firm performance varies negatively with opportunistic managerial intervention.*

<sup>1</sup> Note that this literature is not entirely uncontroversial. For example, see Guest (1998) for a sustained critique.

<sup>2</sup> Of course, loss of motivation may not automatically lead to, for example, less effort supply, if monitoring systems or extrinsic motivation can substitute for the loss of motivation caused by opportunistic managerial intervention.

### 2.5 *Why opportunistic managerial intervention?*

It is not immediately apparent why managers should ever intervene in such a manner. According to Hypothesis 3, opportunistic managerial intervention destroys value. In addition to managerial irrationality, there are two reasons for why this may happen, despite being obviously inefficient.

First, managers may derive a private benefit (in whatever form) from managerial intervention that destroys value. For example, managers who are up for promotion may derive private benefits from imposing restrictions to cut strongly the costs of the slack and externalities that are associated with a high level of delegation of discretion. For this to work as an equilibrium strategy, it is necessary that the manager is not punished for intervening in a value-destroying manner, for example, because his behaviour is simply not noticed by those who are in a position to punish him. This may be the case when the organisational costs arrive after only a significant delay, or if it is very difficult to trace organisational costs to the managers' behaviour.

A second reason relates to the familiar problem in the political economy of time inconsistency (Kydland and Prescott, 1977; Weingast and Marshall, 1988). For example, governments have an incentive to promise *initially* not to confiscate (too much of) the wealth created by entrepreneurs in order to strengthen their incentives actually to undertake investments, and *then*, in some later period, deviate from this promise and confiscate substantial portions of the created wealth. In the context of delegation, an analogous behaviour may consist in, first, promising substantial discretion. When employees, enthused about their new extended discretion, come up with profit-improving ideas about how to improve products, processes, etc., managers may harvest these, decide that the organisation already has its hands full with implementing these ideas, and that the level of delegated discretion may be usefully reduced in order to save costs.<sup>1</sup> However, the political economy literature referred to above also suggests that these problems may be checked by various institutions and mechanisms.

### 2.6 *Credible delegation*

The political economy concept of credible commitment (see also Williamson, 1996) implies that it is often in an organisation's long-term interest to avoid later period actions that break promises (here with respect to delegation), thereby harming organisational members, and that avoiding such behaviour may be accomplished by constraining the flexibility of managers in such a manner that the initial promise becomes credible (Kydland and Prescott, 1977; Weingast and Marshall, 1988). In the present context, there are two categories of mechanisms that contribute to making promises to not engage in opportunistic managerial intervention credible, namely what may be called *internal* and *external* mechanisms.

With respect to *internal* mechanisms, managers may *stake their personal reputations* (Miller, 1992; Argyris and Mui, 1999), for example, through symbolic and communicative acts (e.g., announcing in large-scale company gatherings one's firm commitment to certain policies and values (Brockner *et al.*, 1992)). This suggests the following hypothesis:

**Hypotheses 4a:** *Opportunistic managerial intervention varies negatively with the strength of managers' personal reputations for pursuing a 'fair' policy in dealing with employees.*

<sup>1</sup> This may help explain why organisations often 'vacillate' between loose and hierarchical structures (Nickerson and Zenger, 2004).

Reputation effects are far from perfect with respect to constraining opportunistic behaviours (Williamson, 1996). This also holds for reputation effects inside the hierarchy. For example, managers change jobs and may not carry their reputation with them. Corporate cultures are longer lasting than personal reputations and serve to enforce implicit contracts in situations where personal reputations fail (Kreps, 1990):

**Hypotheses 4b:** *Opportunistic managerial intervention varies negatively with the extent to which corporate culture implies expectations that managers will pursue a 'fair' or 'hands off' policy in dealing with employees.*

Hierarchical structure also plays a role in constraining managerial opportunistic intervention. Thus, Milgrom (1988) argues that employee rent-seeking that aims at influencing hierarchical superiors to intervene selectively to the benefit of the rent-seeking employees will be constrained by rigid, hierarchical structures which makes such rent-seeking more costly. Also, upper and lower-level managers may differ in their preferences for intervention; for example, lower-level managers may derive a private benefit from overruling, whereas upper-level managers do not (Aghion and Tirole, 1997).

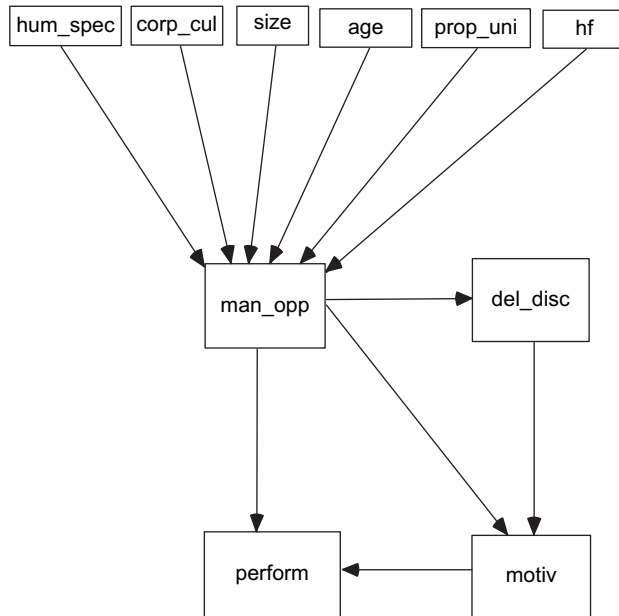
A third reason why hierarchical structure may constrain opportunistic managerial intervention (in fact, all managerial intervention) is that the hierarchy is not just a structure of authority, but also one of information (Thompson, 1967; Galbraith, 1974). Thus, there will be an informational distance between those possessing authority and those to whom discretion has been delegated. The size of this informational distance influences the basis for exercising judgment with respect to decisions whether to overrule employees or not. All else being equal, the more hierarchical layers that information has to pass through before reaching the level exercising authority, the less adequate is this basis likely to be. Moreover, even though there may be few hierarchical layers, managerial task descriptions may be such that managers will essentially be overloaded if they insist on being sufficiently informed to be in a position to overrule. If the manager realises that because of information overload, he is not in a position to decide rationally whether to overrule or not, he should not overrule (Aghion and Tirole, 1997). Thus, this reasoning predicts that overruling of employees is less likely to occur in organisations with large informational distances and/or managers that are heavily burdened with information:

**Hypotheses 4c:** *Opportunistic managerial intervention varies negatively with the informational distance in the corporate hierarchy.*

Some employees or groups of employees may be particularly costly for management to overrule, because they control critical resources, notably their own human capital. For example, Henry Ford II and the rest of the Ford top management team tolerated the open disagreement with official Ford strategy expressed by Lee Iacocca and his clique of loyal managers, because of the marketing skills exercised by Iacocca and his men (Halberstam, 1986). Overruling such employees means that they may cut back on the supply of their essential services and may refrain from augmenting their valuable human capital. This suggests the following hypothesis:

**Hypotheses 4d:** *Opportunistic managerial intervention varies negatively with the degree of human capital specificity.*

Employees with strongly specialised, important human capital may possess considerable bargaining power and influence (Rajan and Zingales, 1998). However, such influence may also be secured through other means, such as extensive employee ownership of the firm.



**Fig. 1.** Hypothesised model

This means that employee interests may be more strongly reflected in corporate decision-making, implying that, in such firms, opportunistic managerial intervention may be less prevalent:

**Hypotheses 4e:** *Opportunistic managerial intervention varies negatively with the degree to which employee interests are represented in corporate decision-making.*

With respect to *external* mechanisms that may enforce delegated discretion, a clear example is *strong trade unions or professional associations*. Their influence may imply that certain rights are so strongly protected (i.e., they are outside the ‘zone of acceptance’, Simon, 1951) that management cannot realistically change these (Argyris and Liebeskind, 1999).

**Hypotheses 4f:** *Opportunistic managerial intervention varies negatively with the degree of unionisation and the strength of unions and professional associations.*

Figure 1 shows the model summarising all these hypotheses. In the following section we present our dataset, the methods we have applied, and the results.

### 3. Data, variables and results

#### 3.1 Data collection

Data were collected by mail questionnaire after an initial pilot testing of the instrument. The sample population is composed of all firms in the Spanish food and electric/electronic industries (SIC 20 and SIC 36) with a turnover of 3 million euros or more in the year 2000. The choice of these two very different industries was based on the need to obtain enough

firm diversity while maintaining survey costs at reasonable levels. Concerning the size of firms, it is useful to note that the kind of information required for this study is not usually available for smaller firms or if it is, the results are often rather obvious. Moreover, the greater the size of the firm, the more experience it has, and the higher the competence of the survey participant regarding the concepts included in the questionnaire; this obviously affects the reliability of the responses by making the answers more rigorous.

Following these criteria, the population of the study was drawn from the directory, *DB Marketing: 700.000 empresas españolas*. This directory is updated on an annual basis by the international management consultancy, Dun & Bradstreet. From this database we identified 3,040 firms that met the conditions described above. We mailed an initial questionnaire with a customised letter addressed to the production manager in each firm. Thirty-six questionnaires were returned, either because the address was wrong or the firm had ceased its activity. Furthermore, not all the remaining questionnaires were valid: Missing values and the unfeasibility of identifying the firm to which some of the questionnaires belonged resulted in the final sample being composed of 329 firms (11% of the total population). Assuming the worst scenario for a binary variable, where [ $p = q = 50\%$ ], and imposing a confidence level of 95%, these figures represent a sampling error of  $\pm 5.09\%$ .

### 3.2 Variables

Table 1 contains a brief description of the variables which we can group in two sets. The first stems from the Spanish directory of firms mentioned above (hierarchical form, performance, size and age of the firm), and from direct figures provided by the respondents (human specificity and propensity to unionize). Although the details appear in Table 1, it is relevant to note that size and age have been categorised after noticing that differences in firm behaviour are much more evident comparing the groups which were finally identified. Moreover, of all the possible measures for firm performance, we opted for one which is closely linked to workers’ productivity: value added divided by the number of workers.

Second, given their conceptual complexity, we tried to measure delegation, motivation, managerial opportunism and corporate culture through the linear combination of several items. This process followed two steps. First of all, and based on the extant literature (Mowday *et al.*, 1982; Dewar *et al.*, 1980; Lawrence and Lorsch, 1967; Pugh and Hickson, 1976; Willman, 1983; Dow, 1987; Grimshaw and Rubery, 1998; Kotter and Heskett, 1992), a list of indicators for each variable was presented to a group of three production managers and two operators from diverse firms. They were asked to discuss how representative each indicator was of the corresponding construct and to propose others that were not in the original list. They concluded with a different number of indicators for each variable that, in their view, reasonably reflected what the variable tried to grasp. In a second stage, these indicators were tested in 20 interviews, together with the rest of the items of the questionnaire. We finally chose those for each variable that provided not only the highest Cronbach’s  $\alpha$ , but also a first component—through Principal Component Analysis—that could explain more than 50% of the variance of the items.

This process turned out to be satisfactory, although obviously not perfect. In the case of corporate culture and managerial opportunism, several indicators had to be pulled out in order to get a better reliability of the scale (Cronbach’s  $\alpha$  should be above 0,7 for a non-exploratory analysis; cf., Nunnally, 1978). For motivation and delegation of discretion, our initial measures based on the literature (Mowday *et al.*, 1982; Dewar *et al.*, 1980,

**Table 1.** *Description of the variables*

	Denomination and abbreviation	Description
$X_1$	Delegation of discretion (del_disc)	Degree of delegation to adapt to eventual modifications on the production line that affect several work stations (five levels).
$X_2$	Managerial opportunism (man_opp)	Propensity of a principal to impose orders exceeding the previously agreed limits to other agents who do not have to be consulted. Construct built up with Principal Component Analysis.
$X_3$	Hierarchical form (hf)	Two values: 1 for capitalist firms and 2 for worker-owned enterprises (most of the latter belong to the Mondragon cooperative).
$X_4$	Human specificity (hum_spec)	Difference between the time that a new worker with no experience in the industry spends until he/she reaches the normal productivity of his/her mates, and the time that a new worker who does have experience in the industry spends until she reaches that normal productivity (five levels).
$X_5$	Propensity to unionise (prop_uni)	Percentage of unionised workers within the firm.
$X_6$	Age (age)	Three values: 1 for firms that have been in existence for 10 years or less; 2 for firms between 11 and 30 years, and 3 for firms with more than 31 years.
$X_7$	Corporate culture (corp_cul)	Equivalent to the intensity of socialization: extent to which certain norms and values are widely shared and intensely held throughout the organisation. Construct built up with Principal Component Analysis.
$X_8$	Size (size)	Two values: 1 for SMEs with fewer than 100 operators; 2 for the rest.
$X_9$	Motivation (motiv)	Degree to which workers' commitment encourages them to do their best (five point Likert-type scale).
$X_{10}$	Performance (perform)	Value added divided by number of operators

respectively) did not offer a first component that could explain more than 50% of the variance of the items, so we decided to stick to just one item. Once the indicators were chosen for each construct and data were available, Principal Component Analysis was applied for corporate culture and managerial opportunism in order to get a single value. For strictly operational reasons (particularly to search for an easier interpretation of absolute figures), the latent variables were subsequently transformed to make them start with 1. Table 2 shows the main figures.

Finally, some of the variables referred to in the above hypotheses were not measured directly. This is the case for the 'strength of managers' personal reputations' construct. We proxy this construct with the age of the firm variable, based on the argument that young firms have higher expected mortality, which implies that the value of a manager's reputation in such a firm is smaller than in an older firm with a lower expected mortality. Also, we did not measure the construct 'informational distance in the corporate hierarchy' directly (H4c). We proxy this construct with the size variable, because it is reasonable to expect a positive relation between the size of a firm and the depth of its corporate hierarchy. Lastly, the variable 'degree to which employee interests are represented in corporate

**Table 2.** Summary of items retained in each construct built up with principal component analysis

Var	items in the variable	Factor loading	KMO index	Variance explained (%)	Cronbach’s $\alpha$
Managerial opportunism	Please indicate to what extent you agree with the following statements (1 being ‘strongly disagree’ and 5 ‘strongly agree’):		0.72	57.37	0.74
	1. If we paid overtime strictly, the firm would not be sustainable	0.849			
	2. Some operators cannot always use up their holidays because of production needs	0.782			
	3. Flexibility and cost-saving requirements foster the use of short-term contracts even for long term employment relationships	0.684			
	4. Operators believe that managers press them excessively	0.704			
Corporate culture	Please, indicate to what extent you agree with the following statements (1 being ‘strongly disagree’ and 5 ‘strongly agree’):		0.72	76.06	0.84
	1. Our operators know the history of the firm and its most important achievements	0.883			
	2. Our workers are acquainted with the firm’s short- and long-term objectives	0.884			
	3. Working in our firm makes our workers experience a sense of pride	0.889			

decision-making’ (H4e) has been measured by the hierarchical form of the firm, which distinguishes between capitalist and worker-owned firms.

### 3.3 Empirical results and discussion

Table 3 shows the means, standard deviations and correlations for the variables. Two initial important insights have to do with the rather low level of delegation of discretion that we can find in our study, whereas managerial opportunism achieves a high figure. Moreover, both are negatively correlated. Regarding their association with other variables, on the one hand, a high delegation of discretion is strongly related to a strong corporate culture, workforce motivation and labour productivity. On the other hand, managerial opportunism appears to be associated with little human specificity involved in the labour transaction, low motivation and corporate culture, and is especially relevant in SMEs and capitalist firms when compared with large corporations and worker-owned enterprises, respectively.

Since the object of our investigation has to do with the *interaction* among managerial opportunism, motivation and performance, we have developed a path analysis, which is

**Table 3.** Descriptive statistics and correlations

	Min.	Max.	Mean	St. dev.	1	2	3	4	5	6	7	8	9	10
1 del_disc	1	5	1.81	1.15	1									
2 man_opp	1	5.35	3.46	1	-0.24***	1								
3 hf	1	2	—	—	0.19***	-0.44***	1							
4 hum_spec	1	5	2.48	0.972	0.16***	-0.36***	0.020	1						
5 prop_uni	0	100	31.89	26.44	.075	-0.127**	-0.42***	0.076	1					
6 age	1	3	2.06	0.69	0.048	-0.22***	-0.1*	0.062	0.43***	1				
7 corp_cul	1	5.54	3.56	1	0.51***	-0.26***	0.38***	0.26***	-0.139**	-0.088	1			
8 size	1	2	—	—	0.081	-0.26***	-0.042	0.029	0.23***	0.31***	-0.001	1		
9 motiv	1	4	2.35	0.925	0.37***	-0.41***	0.37***	0.24***	-0.11**	-0.017	0.73***	-0.02	1	
10 perform	-10.6	98.9	11.2	10.45	0.26***	-0.33***	0.31***	0.264***	-0.09*	-0.034	0.42***	0.071	0.51***	1

<sup>a</sup>Pearson correlations for pairs of continuous variables and Spearman correlations when one or the two of them are ordinal or categorical.

\*Significant at 10% level. \*\*Significant at 5% level. \*\*\*Significant at 1% level.

commonly used in organisational analyses. Compared with conventional multivariate techniques, this procedure allows us to design a model with various levels of dependency. Also, since it takes into account the correlations among the exogenous variables when calculating the regression coefficients, we can avoid spurious relations and lessen multicollinearity problems. Finally, we can at the same time calculate the estimators and the measurement errors, so the literature (Bollen, 1989; Bollen and Long, 1993) suggests that results are statistically more robust than with conventional regressions.

It is worth noting that the model is probably far from being exhaustive in terms of including all potentially relevant independent variables. Rather, it does seem to be the best one that our insights allowed us to construct prior to this research, while sticking at the same time to the ‘keep it simple’ rule. We have actually tried to include the least possible number of variables and relations to address the problem exposed in the theoretical section. Notice that we do not mean to explain motivation, delegation of discretion, performance—we just try to show there is a particular relation between them. Thus, our aim is not only to verify or refute each one of the above hypotheses separately, but also to test whether their interaction is statistically significant.<sup>1</sup>

As noted above, Figure 1 presents the path diagram with the relations that our propositions suggest. Consider motivation, and observe that the arrows represent its dependency on the level of delegation of discretion (H1) and the degree of managerial opportunism (H2). In addition, despite firm performance obviously depending on many other variables, Hypothesis 3 emphasises that it will be at least affected by managerial opportunism. We controlled for industry also in the equation with performance as dependent variable. We decided to include in the model only the independent variables, however, for the sake of simplicity. The reason is that the estimators and the goodness of fit of the model did not suffer any important change. We also checked whether the relative influence of each independent variable measured by its standardised coefficient was modified, but they were not. Concerning the endogenous variables and starting with opportunistic managerial intervention, observe that, as suggested by Hypothesis 5, it varies negatively with the strength of managers’ personal reputation—age—(H4a); corporate culture (H4b); corporate hierarchy—size—(H4c); the level of expert knowledge involved in the labour transactions (H4d); workers’ participation in corporate decision making—hierarchical form—(H4e); and the degree of unionisation (H4f).

Finally, there are two second-order relations which do not appear explicitly in our set of hypotheses because they have already been well established in previous literature. The relation between motivation and performance has been discussed in seminal works such as McClelland (1955), Herzberg *et al.* (1959) or Vroom (1964), whereas the link between managerial opportunism and delegation of discretion is based on Simon (1951), Willman (1983), Dow (1987) or Kreps (1990). The argument is that, no matter how short-termed decisions might be (for instance working overtime, changing shifts, assuming new tasks, etc.), delegating discretion restricts the ability of managers to go beyond the *ex ante* agreed

<sup>1</sup> Construct building (managerial opportunism and corporate culture) could also be implemented in the same model. We chose to do it separately because we have checked that results do not change, and the final model is thus much simpler. Furthermore, motivation is treated as a continuous dependent variable, because the consequences of assuming data are interval when in fact they are ordinal are so small that the gain in statistical elegance and power justifies the possible distortion. Finally, there are dozens of measures of the goodness of fit (GF) for this kind of models (Bentler and Bonnet, 1980; Bollen and Long, 1993). The measures used here are the ones which appear to be more widespread in the empirical literature and in the specific software packages design for this tool (EQS, LISREL, AMOS, etc.).

‘zone of acceptance’. Therefore, delegation cannot be credibly sustained in firms where managerial opportunism is high. The model takes, consequently, the following form:

$$\begin{aligned} \text{man\_opp} = & \alpha_1 + \beta_{14}\text{hum\_spec} + \beta_{17}\text{corp\_cul} + \beta_{18}\text{size} \\ & + \beta_{16}\text{age} + \beta_{15}\text{prop\_uni} + \beta_{13}\text{hf} + e_1 \end{aligned} \quad (1)$$

$$\text{perform} = \alpha_2 + \beta_{22}\text{man\_opp} + \beta_{29}\text{motiv} + \beta_{21}\text{del\_disc} + e_2 \quad (2)$$

$$\text{motiv} = \alpha_3 + \beta_{32}\text{man\_opp} + \beta_{31}\text{del\_disc} + e_3 \quad (3)$$

$$\text{del\_disc} = \alpha_4 + \beta_{42}\text{man\_opp} + e_4 \quad (4)$$

The path coefficients (the  $\beta$ s) are the main object of our estimation. They represent the beta weights obtained from a set of multiple regressions on the posited relationships within the model. In this case, given the absence of multivariate normality and the size of the sample, the method of estimation has been based on the Maximum Likelihood criterion with a bootstrap of 200 sub-samples (each coefficient represents the mean of the estimator for the 200 sub-samples). The results are shown in Table 4.

The path coefficient reflecting the influence of corporate culture on managerial opportunism does not seem to be significant (although Table 3 shows both are correlated). Our argument was that corporate cultures are longer lasting than personal reputations and serve to enforce implicit contracts in situations where personal reputations fail. Measurement errors notwithstanding, nevertheless, the problem could reside in the relation between the external and internal labour markets (Vázquez, 2004): the firm’s reputation is less important for attracting good workers when the rate of unemployment is high, as is the case in Spain (11% in 2004). In other words, if alternative jobs opportunities are scarce, the need to enforce implicit contracts becomes more elastic, even in those firms with the best reputation. All the goodness of fit measures would increase if we respecified the model without the relation corporate culture/managerial opportunism.

**Table 4.** *Maximum likelihood estimation<sup>a</sup>*

Dep. var./indep. var.	Standardised coefficients	Non-standard. coefficients	Standard error	<i>t</i> value
man_opp/corp_cul	-0.035	-0.035	0.046	-0.760
man_opp/size	-0.160	-0.367	0.102	-3.592
man_opp/age	-0.115	-0.164	0.068	-2.416
man_opp/hf	-0.517	-1.644	0.153	-10.739
man_opp/hum_spec	-0.312	-0.318	0.044	-7.263
man_opp/prop_uni	-0.200	-0.008	0.002	-3.938
del_disc/man_opp	-0.238	-0.277	0.062	-4.445
motiv/man_opp	-0.341	-0.341	0.049	-6.938
motiv/del_disc	0.298	0.257	0.042	6.077
perform/motiv	0.369	4.661	0.676	6.896
perform/man_opp	-0.179	-2.258	0.676	-3.340

<sup>a</sup> $\chi^2/DF = 3.9$ ; goodness of fit index (GFI) = 0.88; root mean square error of approximation (RMSEA) = 0.09; adjusted goodness of fit index (AGFI) = 0.838; parsimonious goodness of fit index (PGFI) = 0.841.

Data suggest, therefore, that when compared with smaller, younger and capitalist firms, the level of opportunistic managerial intervention becomes lower in large corporations, older firms and cooperatives, respectively. Additionally, the propensity of managers to behave opportunistically also seems higher in firms with low specific human assets and with a low level of union affiliation. These findings confirm Hypotheses 4a, 4c, 4d, 4e and 4f, which state a negative relation between opportunistic managerial intervention and, respectively, managers’ personal reputations (proxied by age), the informational distance in the corporate hierarchy (proxied by size), the level of human capital specificity, the degree to which employee interests are represented in corporate decision-making (proxied by hierarchical form), and finally, the strength of unions and professional associations (proxied by union affiliation).

Moreover, the standardised coefficients convey information for assessing the relative influence that each one of the independent variables exerts on managerial opportunism. Thus, not surprisingly, the hierarchical form of the firm seems to be the main mechanism that helps to avoid opportunistic intervention by managers; that is, the higher the degree to which employee interests are represented in corporate decision-making, the more difficult it is for managers to implement opportunistic interventions. In fact, it is even more important than the bargaining power stemming from local and specific knowledge or from the strength of unions in the firm. In turn, size and age of the firm apparently explain a lower percentage of the variance of managerial opportunism.

Regarding motivation, the results show that employees seem to be more motivated in firms with a higher delegation of discretion. In addition, as the level of managerial opportunism increases, workforce motivation clearly goes down. And, finally, there is a significant indirect effect of managerial opportunistic intervention on motivation through delegation of discretion. This evidence confirms Hypotheses 1 and 2, linking employee motivation to the level of delegation and the intensity of managerial opportunism.

With respect to firm performance, observe that Table 4 also reflects two additional important facts: first, it confirms Hypothesis 3, which suggests direct influence of managerial opportunistic intervention on firm performance. It is still to be proved, however, that this negative effect would still be maintained if firm performance were measured with financial ratios, and not with a ratio reflecting productivity concerns (other financial ratios were used but no conclusive results were obtained). The reason is that managers could behave opportunistically in order to earn more money, even if this entailed a decrease in overall productivity. For instance, if the firm makes its operators work overtime with no compensation at all, profits could increase despite its workers becoming less productive (because they might reciprocate by being more opportunistic, raising conflict in the firm or just because they might be more tired). Furthermore, the results in Table 4 also verify the relevant indirect effects that both managerial opportunism and delegation of discretion have on workers’ productivity: whereas delegation of discretion exerts an indirect effect through motivation (Hypothesis 1), managerial opportunism modifies workers’ performance by harming motivation (Hypothesis 2) and delegation of discretion (second-order relation).

#### **4. Concluding discussion**

In this final section, we sum up how we have contributed to existing theory, discuss limitations of the study and suggest implications for future research.

#### 4.1 Contribution to established literature

Most firms make use of both authority and delegated discretion. However, the main point in this paper is that this gives rise to a latent conflict, one which may become manifest when managers overrule employees or renege on the discretion they have delegated. In turn, this may have negative motivational consequences and may harm firm performance. Ultimately, the problem arises because ‘contracts’ to delegate discretion are not enforceable in a court of law. Credible delegation may therefore be hard to sustain. However, we have pointed to and analysed how various mechanisms may make delegation credible.

Although the clash of authority and employee motivation is not entirely neglected in the theory of the firm literature *per se* (e.g. Miller, 1992; Aghion and Tirole, 1997; Baker *et al.*, 1999; Falaschetti, 2002), it is still fair to say that they have been given relatively little attention in this body of work. One manifestation of this is that the economics of organisation analyses of ‘opportunism’ have almost exclusively dealt with employee opportunism (Williamson, 1996), employer opportunism being largely neglected (cf., Dow, 1987). The basic idea that we have elaborated in this paper may be argued to be present already in Milgrom’s (1988) argument that organisational form partly reflects an attempt to cope with employee rent-seeking and the inefficient selective intervention that may result from such rent-seeking. Also, a number of recent organisational economics contributions clearly go quite some way towards understanding the incentive liabilities of centralised authority (e.g., Milgrom and Roberts, 1996; Aghion and Tirole, 1997; Baker *et al.*, 1999). However, this remains an under-researched area in the economics of organisation literature, particularly given the apparently high incidence of managerial opportunism (cf., Coyle-Shapiro and Kessler, 2000). For this reason, interest in the mechanisms that can constrain harmful managerial intervention has also been rather scant.<sup>1</sup>

The problem of loss of employee motivation because of opportunistic managerial intervention is closely related to a key problem in the theory of the firm, namely what Williamson (1996, p. 150) calls the ‘impossibility of selective intervention’. This is the ‘puzzle’ of ‘Why can’t a large firm do everything that a collection of small firms can and more?’ Thus, a large firm could replicate the market and only intervene selectively when there would be expected net gains from this, so that ‘the firm will do at least as well as, and will sometimes do better than, the market’. However, Williamson points out that such selective intervention is ‘impossible’. Incentives are diluted, because the option to intervene ‘can be exercised both for good cause (to support expected net gains) and for bad (to support the subgoals of the intervenor)’ (Williamson, 1996, pp. 150–1), and employees know this. Promises to intervene only for a good cause can never be credible, Williamson argues, because they are not enforceable in a court of law. A fundamental problem—in theory as well as managerial practice—is therefore how to maximise managerial intervention for a good cause, while avoiding intervention for a bad cause. Our discussion goes some way to address how various mechanisms contribute to avoiding intervention for a bad cause.

<sup>1</sup> This is also the case of the organisational behaviour literature. This literature does not explicitly frame the issues in rational choice terms. Still, it is considerably more detailed with respect to analysing the actual contents of psychological (implicit) contracts between those who hold discretionary authority and those who do not and the psychological mechanisms that are at work in the case of perceived contract breach. We have mainly used this literature to provide support for some parts of our hypothesis development. However, we conjecture that the organisational behaviour literature in this field and the relevant organisational economics literature may well enter a fruitful liaison.

#### 4.2 Limitations

A number of inherent limitations of the dataset imply that our analysis is far from perfect. First, as in most studies, some of our proxies reflect a certain roughness derived from data availability and reliability. Since their validity has been justified on theoretical as well as on empirical grounds, we think that they nevertheless represent and capture reasonably the theoretical constructs they proxy.

Second, the limitations of the dataset have constrained our theoretical framework. For example, we argue that employee motivation positively depends on the degree of delegation. The link between delegation (or ‘task autonomy’) and motivation has long been recognised in social psychology (e.g., Roethlisberger *et al.*, 1939). It has also long been recognised that for delegation to be effective, employees need to have not only the opportunity but also the incentive and the ability to engage in self-management. We have argued that reductions in delegation, at least when these are perceived as reflecting managerial opportunism, lead employees to reduce effort and human capital investment. This *may* lead to a confusion of cause and effect. For example, it is conceivable that cutting back on delegation is a result of finding out that employees lack the skills that are necessary to engage in self-management.

Third, more generally, much of our reasoning admittedly proceeds in dynamic terms—for example, we make references to breaking psychological contracts—that do not correspond directly to the measures that we use (e.g., we do not measure the incidence of broken contracts) and the cross-sectional nature of the study.

#### 4.3 Implications for future research

Future research may well start from some of the above limitations. Thus, panel data need to be collected so as to correspond better to the dynamic nature of the argument. Also, it would be desirable if data allowed for cross-country comparisons. Otherwise, we cannot rule out the possibility of a country bias in our results.

Our study also suggests a number of avenues for further theoretical research. An obvious route is to formalise our verbal argument. More substantively, there are theoretical implications that await further development. One such implication is that the problem of reducing opportunistic managerial intervention may differ *systematically* across firms, depending on the details of their internal structure, so that some organisational forms are systematically more heavily burdened with problems of opportunistic managerial intervention. Another implication is that the discussion in this paper relates to the classic issue of the determinants of the boundaries of the firm. Thus, a fundamental premise of the analysis in this paper is that, in firms, delegated decision rights are loaned, not owned (Baker *et al.*, 1999). Ultimate decision-making rights can only be transferred from bosses to subordinates by transferring ownership (i.e., creating a new firm). The problem of sustaining credible delegation stems from this basic difference in ownership. The analysis in this paper thus makes direct contact with those modern theories of economic organisation (Hart, 1995; Williamson, 1996) that stress the importance of ownership for understanding the boundaries of the firm. Finally, we have pointed to the desirability of integrating organisational behaviour perspectives on psychological contracts more fully with organisational economics ideas, in order to get a fuller and more relevant understanding of the workings and implications of psychological and implicit contracts. Both fields stand to benefit from such an exercise (Gibbons, 1999).

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