# A NEGLECTED ROLE FOR ORGANIZATIONAL DESIGN

## SUPPORTING THE CREDIBILITY OF DELEGATION IN ORGANIZATIONS

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**Abstract:** Managers delegate the right to make decisions to employees because delegation economizes on scarce managerial attention, fosters the use of local knowledge, and positively impacts employee motivation. This is particularly important in knowledge-intensive organizations that operate in uncertain environments, where employees have specialized knowledge and need to be responsive to local changes. Managers, however, often renege on delegation, particularly in high-uncertainty contexts, because they are tempted to adjust past decisions based on new information. We argue that employees' knowledge that management may renege on delegated decision rights has negative motivational consequences that are costly in knowledge-intensive organizations. As a consequence, making delegation credible is essential for sustaining the advantages that flow from delegation. Organizational design can play a key role in making delegation credible, supporting the value creation caused by delegated discretion. Our theoretical argument sheds new light on relationships among organizational design, credible delegation, and firm-level value creation.

**Keywords:** Delegation, managerial decision-making, knowledge-intensive firms, organization design

Research has long recognized that delegating discretion to employees can foster organizational value creation through various mechanisms. For example, delegation facilitates efficient decision-making in changing and complex environments, economizing on scarce managerial attention and allowing for the efficient use of local knowledge (Aghion, Bloom, & Van Reenen, 2014; Galbraith, 1974; Jensen & Meckling, 1992; Radner, 1993). Organizational value creation can also be fostered by delegation because it increases the autonomous motivation of employees (Spreitzer, 1995; Thomas & Velthouse, 1990), resulting in increased behavioral effort and persistence, higher levels of helping behaviors, and more creative problem-solving (Gagné & Deci, 2005; Ryan & Deci, 2000; Weinstein & Ryan, 2010). Organizational research increasingly highlights the importance of motivation in leveraging the value-creation potential of human resources (e.g., Bridoux, Coeurderoy, & Durand, 2011; Coff, 1997; Gottschalg & Zollo, 2007; Lindenberg & Foss, 2011).

Delegation is particularly important for organizations operating in uncertain environments because it reduces the costs associated with information transfer, hence increasing the organization's responsiveness to local changes. Moreover, if the organization is knowledge-intensive it also benefits from delegation because knowledgeable employees are expected to perform tasks (such as creative idea generation or problem solving) which are known to be sensitive to motivational forces (Deci & Ryan, 2000). Delegation, however, must be *credible* to employees in order to ensure its motivational benefits. That is, employees must trust that managers do not renege on the delegated discretion in order to realize immediate gains from intensive control or the routinizing and planning of employee activities. The question we address in this study is: What is the contribution of organizational design to create and


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sustain motivation-based value creation in knowledge-intensive organizations that face environmental uncertainty? In posing this question, we link up with a tradition of research on employee participation, involvement, and empowerment which has long recognized that the formal organization can be designed to motivate employees by empowering them or granting them decision authority (e.g., Harley, 1999; Labianca, Gray, & Brass; 2000; Liao et al., 2009). The contribution of our research lies in proffering different, and more oblique, reasons why organizational configurations matter for employee motivation and, hence, overall value creation.

## THEORETICAL ARGUMENT

When employees have discretion delegated to them, they have the formal right to choose which actions they prefer within specified limits. The organizational design – and, in particular, the way in which coordination is carried out – influences the limits of the discretion delegated to employees. Delegation of discretion fosters feelings of competence and autonomy in employees (Bénabou & Tirole, 2003; Liao et al., 2009). Such feelings have been shown to be supportive of autonomous motivation which, in turn, leads to increased effort, behavioral persistence, and overall value creation (Gagné & Deci, 2005; Ryan & Deci, 2000). However, delegated decision rights are loaned not owned (Aghion & Tirole, 1997; Baker, Gibbons, & Murphy, 1999). Thus, employees usually understand that delegated decisions can be overruled and discretion can be permanently reduced (Coyle-Shapiro & Kessler, 2000; Williamson, 1996). From a motivational perspective, this raises problems. Autonomous motivation is highly sensitive to perceived control (Deci & Ryan, 2000; Gagné & Deci, 2005; Ryan & Deci, 2000). Employees who believe that managers' explicit or implicit promises of delegated discretion are not credible will fear that, after having mobilized a high degree of motivation in carrying out their tasks, they may face a reduction in the level of delegation, perhaps amounting to opportunistic reneging on the part of managers. A loss of autonomous motivation may be the result, leading to smaller contributions of effort and creativity in work and problem solving. This is particularly problematic in knowledge-intensive organizations, where motivation has consistently proven to be a fundamental driver of performance (Ryan & Deci, 2000). For this reason, making delegated discretion credible is important to value creation that is driven by the motivational effects of delegation.

While the relation between organizational design and delegation has been widely discussed in contingency theories of organizations (Burns & Stalker, 1961; Galbraith, 1974, 1977, 1995; Grandori, 2001; Lawrence & Lorsch, 1967; Mintzberg, 1983; Thompson, 1967; Woodward, 1965), little is known about the relation between organizational design and the credibility of delegation. This is problematic because the lack of understanding of how organizational design contributes to credible delegation deprives managers of an important instrument for protecting the employee motivation that fosters value creation. The question therefore is: How does the organizational design impact on the credibility of delegation? That is, how can managers make it credible to employees that they will not renege on agreements to delegate discretion to those employees?

We focus on cross-level influences of organizational systems on individual employee perceptions and behaviors associated with motivation. A key argument in contingency theory is that there is a positive relationship between organizational performance and aligned configurations of organizational elements (Child, 1975; Galbraith, 1977). This argument seldom includes employee motivation. We add this missing element by considering issues of credibility, delegation, and organizational design through multiple lenses (Okhuysen & Bonardi, 2011). Specifically, we argue that organizational configurations that reduce the probability of managerial intervention increase the credibility of delegated discretion, supporting the motivation-driven value creation that may be caused by delegated discretion.

In building our argument, we rely on related streams of the organizational literature. Classical contributions to the contingency theory of organizational design supply the fundamental understanding of the fit that must be created between the particular coordination mechanisms in use, the extent to which employees will be delegated discretion in the way they carry out their job functions, and the structure of the organization (Burton & Obel, 2004; Galbraith, 1974, 1995; Lawrence & Lorsch, 1967; Meyer, Tsui, & Hinings, 1993; Mintzberg, 1983; Thompson, 1967; Van de Ven & Drazin, 1985). Organizational economics offers a basic framing of the notion of credible delegation (Baker et al., 1999; Dessein, 2002). Organizational behavior research provides insights into the relationships among psychological factors, work motivation, and employee effort (Gagné & Deci, 2005; Osterloh & Frey, 2000; Rousseau, 1989; Ryan & Deci, 2000).

## DELEGATION, MOTIVATION, AND VALUE CREATION: THE PROBLEM OF CREDIBILITY

Delegation of discretion obtains when a set of choices is left to the employee. Two distinct theoretical perspectives – namely, contingency theory and organizational economics – offer important insights regarding the determinants of discretion delegated to employees in organizations. Contingency theory suggests that the amount of discretion that potentially can be delegated to employees who carry out the primary functions of the firm depends on job design and technology. For example, increasing the number of tasks in a job potentially increases employee discretion (Blau, 1970, 1972; Mintzberg, 1983). Moreover, production technology may impact the potential level of discretion as, for example,, highly automated technology leaves little to be delegated (Edwards, 1979; Perrow, 1967).

Contingency theory also suggests that the mechanisms used to coordinate tasks performed by different employees constrain the delegation of discretion to employees. Coordination mechanisms are used in organizations to deal with interdependencies among employees who carry out their tasks. Coordination mechanisms specify how interdependencies are dealt with while control mechanisms are ways of ensuring that employees follow job descriptions, guidelines, and procedures and that they exert an adequate level of effort in the tasks to which they are assigned. Our focus is on coordination as it is more fundamental in determining the amount of discretion delegated to an employee.

Research proffers several classifications of coordination mechanisms (e.g., Astley, 1985; Grandori, 2001; Thompson, 1967; Van de Ven, Delbecq, & Koening, 1976). We rely on Mintzberg's (1983) classic distinction between mutual adjustment, direct supervision, standardization of work processes through planning, and standardization of output by means of goals. Clearly, some coordination mechanisms allow for more delegation of discretion than others. While detailed plans, strict rules, and standardization of processes circumscribe employee discretion by defining legitimate boundaries of decision-making responsibility (Perrow, 1967), goal planning and mutual adjustment leave it up to the employee to decide how to carry out the task itself (Astley, 1985).

Goal planning is coordination of activities by defining the desired output. For example, knowledge workers in product design may be directed in their search for new designs by goals set for the performance of the product. In this case, goals serve as guidelines for directing the discretionary activities of employees. Goals may also be used to set standards for the effort put into a job as may be the case when employees in sales are rewarded on the amount of sales they have generated. The latter use is a control mechanism that may negatively impact intrinsic motivation. For this reason, we focus on goal planning as a coordination mechanism, that is, as a means of directing employees' discretionary activities.

Mutual adjustment implies a delegation of discretion to those employees who hold important complementary knowledge and information allowing them to directly consult one another and make decisions independently. This differs from direct supervision, where employees communicate their information or decision criteria to a manager who decides on actions or resource commitments (Casson, 1994; Mintzberg, 1983). Based on this distinction, we argue that mutual adjustment leads to higher levels of delegation of discretion precisely because employees are left to autonomously decide, or search for new projects or new ways of sequencing activities. Similar to goal planning, however, mutual adjustment can imply more or less discretion to employees – for example, employees can be delegated rights to make decisions only on a narrow and well-defined set of activities, or their decisions may be limited by lack of access to resources. Here we discuss mutual adjustment where employees have a real choice of actions. Often mutual adjustment is used as a way of coordinating activities to reach defined goals within a group of employees. Organizations where coordination is achieved by broadly defined goals, and perhaps supplemented by mutual adjustment across a large set of activities, allow for high levels of delegation of discretion.

In sum, organizations that have achieved a fit between their environment and configurative elements vary systematically with respect to the kind of coordination mechanisms they use for coordinating employees in the primary functions.

Organizational economics emphasizes how knowledge conditions play a key role in determining the extent of delegation. If an employee possesses superior knowledge, this speaks in favor of delegating decision rights to the employee, because he or she (and not the manager) will have the correct knowledge about which action should optimally be taken in response to a contingency (Aghion & Tirole, 1997; Jensen & Meckling, 1992). In principle, knowledge can be communicated from the employee to the manager (divisional management, corporate headquarters, etc.), but at a cost. Part of the cost is the slowing down of decision-making that such communication inevitably implies (Casson, 1994; Radner, 1993). Knowledge and information may be utilized more efficiently by letting those who possess the relevant local information make the local decisions (Jensen & Meckling, 1992). This is in line with contingency theory which predicts that high environmental uncertainty and/or complexity favors delegation (Burns & Stalker, 1961; Casson, 1994; Galbraith, 1977; Lawrence & Lorsch, 1967).

## Delegation, Autonomous Motivation, and Value Creation

Discretion may be delegated for motivational reasons (Conger & Kanungo, 1988; Liao et al., 2009; Sliwka, 2001). Motivational psychology, and in particular self-determination theory, highlights that motivation differs in kind and not just intensity, depending on its degree of autonomy (Deci & Ryan, 2000; Gagné & Deci, 2005; Ryan & Deci, 2000). Autonomously motivated agents perceive themselves as originators of their behavior. That is, what gives rise to the behavioral effort of an autonomously motivated agent (in other words, his or her perceived locus of causality) is internal. For this reason, autonomously driven behaviors tend to be self-endorsed and consistent with personal values and attitudes (Weinstein & Ryan, 2010). On the other hand, controlled motivation is associated with an externally perceived locus of causality. Thus, an agent that is motivated in a controlled way does not feel as the originator of his or her behavior but rather feels pressured to engage in it (Deci & Ryan, 1985).

Autonomous motivation can be disrupted by more or less overt manifestations of control, such as extrinsic rewards, the exercise of managerial authority, and deadlines (Amabile, DeJong, & Lepper, 1976; Deci, Koestner, & Ryan, 1999; Frey & Oberholzer-Gee, 1997). Similarly, autonomous motivation can be stimulated and maintained by signals of trustworthiness and competence affirmation (Deci & Ryan, 2000). Delegation of discretion stimulates an employee's perceived personal efficacy. By delegating discretion, the manager demonstrates confidence in the employee – delegation of discretion signals that the manager regards the employee to be competent and trustworthy enough to be given the right to make his or her own decisions and choices (Bénabou & Tirole, 2003; Liao et al., 2009). Perceptions of autonomy and competence affirmation are the main determinants of the emergence of autonomous motivation (Ryan & Deci, 2000). Autonomous motivation, in turn, makes it more likely that the employee exerts effort. Specifically, autonomous motivation has been shown to be conducive to interest, confidence, and excitement, and, in turn, creativity, persistence, effort, general well-being, and, ultimately, performance (Deci & Ryan, 2000; Gagné & Deci, 2005). This relation has been shown to be particularly significant in the context of complex tasks that require creativity in problem-solving and in the context of certain types of sharing behaviors, such as knowledge sharing (Baron & Kreps, 1999; Hill & Amabile 1993; Osterloh & Frey, 2000).

## Costs of Delegation

Along with its positive implications, delegation of discretion comes with costs. For example, Jensen and Meckling (1992) argue that organization-level costs caused by the agency problem vary positively with delegation. Additional costs of delegated discretion include costs stemming from reduced coordination of interdependencies within the organization (Galbraith, 1974; Roberts, 2004) and in coordination problems such as product cannibalization, overuse of common pool resources (Vining, 2003), and, more generally, reduced flexibility (Sengul, Gimeno, & Dial, 2011).

Delegation of discretion makes sense as long as the organizational benefit in terms of reduced information costs, improved use of local knowledge, and employee motivation exceed the costs in terms of agency costs, coordination costs, and costs resulting from attempts to remedy these problems. Thus, the efficient amount of delegation in a firm is determined where the (discounted) marginal costs are balanced against (discounted) marginal benefits of delegation of discretion. Managerial perceptions of diminishing benefits and/or increasing costs from delegation may prompt managers to intervene and change the level of delegation.

### Managerial Intervention

Managerial intervention can be directed both at increasing and at reducing delegated discretion. Given the positive effect of delegation of discretion on autonomous motivation (and motivation-driven value creation), however, we are here concerned with those managerial acts that reduce the discretion that is delegated to an employee, and thus may compromise autonomous motivation. Such intervention may take two forms. First, it can amount to overruling employee decisions and, second, it can reduce the level of discretion that is delegated to employees (e.g., by substituting or complementing mutual adjustment and goal planning with direct supervision or detailed work plans). Both types of intervention are instances of reneging on an implicit contract to delegate discretion. Managerial intervention can take place for “good causes” (i.e., it is intended to benefit the organization) or for “bad causes” (i.e., managerial opportunism) (Williamson, 1996). The former refers to intervention that is intended to benefit the organization. For instance, intervention may be exercised in an attempt to eliminate or reduce the costs that may arise from coordination failures (Foss, 2001; Malmgren, 1961). The latter refers to harmful sub-goal pursuits (Williamson, 1993). While relatively clear-cut in practice, it may often be difficult to place actual managerial practice unambiguously in one of the two categories, not the least for those employees that are subject to intervention. For example, managers may delegate substantial discretion to employees in an attempt to rejuvenate the organization. Employees, happy with their newly increased discretion, come up with profit-improving ideas, and many of these ideas are implemented. Management then decides that the organization is now fully occupied with implementing the ideas. As a consequence, the level of delegated discretion is reduced, because the need for costly idea-generation is smaller (Foss, 2003). Both “good” and “bad” intervention (Williamson, 1996) introduces a problem of credibility regarding delegated discretion.

### Credible Delegation

Organizational economics (Aghion & Tirole, 1997; Baker et al., 1999; Milgrom, 1988; Miller, 1992; Williamson, 1985, 1993) offers a basic framing of the issue of credible delegation. Consider, for example, Baker et al.’s (1999) game theoretic framing. In their model, delegation of discretion gives employees the informal right to search for and initiate projects. Delegation of discretion is “informal” in the sense that the formal right to ratify remains in the hands of the manager and cannot be allocated to the employee through a court-enforceable contract. The effort that an employee will expend on searching for and starting projects depends on expected benefits. Those benefits are influenced by the probability of being overruled. Whether overruling takes place depends on the value that employees and managers place on their reputation and on what the manager knows about the projects. Thus, the manager may have all information necessary to ratify a project but may still decide to delegate discretion to employees, even if this is not always in the best interests of the manager (or the firm). If this promise is believed, it induces superior effort on the part of the employee with respect to searching for and starting projects. The snag, however, is that while the benefits of increased search may outweigh the costs of bad projects, the manager has the information to assess a particular project and may be "tempted to renege on the promise by rejecting a project that is not in her (or the firm's) interest" (Baker et al., 1999: 57). Credible delegation obtains when the employee knows that it is a dominant strategy for the manager not to intervene in the discretion that has been delegated to the employee.

**Motivational Implications of Credible Delegation**

By delegating decision rights, managers strengthen employees' autonomous motivation. However, this type of motivation is easily disrupted. Specifically, perceived control has been repeatedly shown to "crowd out" autonomous motivation (Deci et al., 1994; Frey & Jegen, 2001; Frey & Oberholzer-Gee, 1997; Grolnick & Ryan, 1989). For instance, managers may use broadly defined goals as a coordination mechanism but in effect overrule the decisions that employees take or introduce direct supervision. Reductions in an employee's delegated discretion increase that employee's perception of being controlled and decrease his or her perceived autonomy. Thus, low perceived credibility regarding delegated discretion should negatively moderate the positive influence of delegation of discretion on autonomous motivation.

Much research evidence supports this line of thought. For instance, Heath, Knez, and Camerer (1993) argue that employees develop implicit and explicit expectations to the contract governing the relationship, and particularly to the benefits that they believe they deserve under the implicit contract – that is, their perceived entitlements. In general, negative motivational consequences can be expected to follow from managerial intervention that interferes with employee entitlements. As the discretion that is delegated to employees becomes part of their perceived entitlements, reneging on delegation is arguably an instance of such interference.

Similar conclusions may be derived from the literature on psychological contracts, which also predicts negative motivational effects of managerial intervention that is perceived as being unfair, arbitrary, or that in other ways breaks with established psychological or implicit contracts. For example, Rousseau and Parks (1993: 36) argue 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)." Empirical research has reached similar conclusions (Foss, 2003; Robinson, 1996). In sum, serious organizational harm may be caused by low credibility regarding delegated discretion to the extent that a lack of credibility reduces the positive motivational effects of delegation on overall value creation (Labianca et al., 2000; Liao et al., 2009).

Autonomous motivation is compromised whenever managerial intervention reduces the degree of delegated discretion (Gagné & Deci, 2005). Thus, even if an employee recognizes the potential intervention as being undertaken for the sake of the organization (i.e., "good" managerial intervention), we expect that he or she will still suffer a loss of autonomous motivation because of the concrete reduction in autonomy.

Given the complexity of the causal chain between delegation of discretion, credibility regarding delegation, motivation, and organizational value creation, we argue that organizations that want to foster value creation via delegation of discretion need to take measures to make delegation credible. In fact, it is exactly because the causal connections among intervention, motivation, and value creation are complex and unpredictable that it is crucial to make delegation credible. Assume as a thought experiment that management had perfect knowledge of these connections. It would then be possible to precisely assess the motivational consequences associated with any intervention and to calculate the impact of credibility on organizational value creation. Given this, only value-increasing intervention would be performed. In fact, intervention could be "fine-tuned" to reach the maximum organizational value creation.

However, such a "first-best" situation is generally not attainable, because of the problem of predicting the effects of intervention on employee motivation. An important implication is that at least some opportunities for value-creating intervention that would obtain in a situation of full information must be forsaken (some inefficiency is unavoidable). While the "first-best" solution cannot be reached, organizations may aim at reaching a "second-best" solution where intervention is reduced to a level where value creation is maximized subject to the constraints represented by motivation loss and the need for adaptability. In other words, under conditions of delegated discretion, organizations that want to maximize the motivation-driven value creation potential of delegation of discretion need to safeguard employee motivation by making delegation credible.

## MAKING DELEGATION CREDIBLE THROUGH ORGANIZATIONAL DESIGN

Managers may be defined as employees that are given decision rights to take actions that support internal coordination, in the sense of ensuring the consistency of internal plans and actions (Barnard, 1938; Coase, 1937; Malmgren, 1961; Simon, 1951). Thus, much of the rationale of management is coordination (Mintzberg, 1973). Since managers are responsible for coordination, a likely reason for them to intervene and reduce delegated discretion is coordination failure (Heath & Staudenmayer, 2000).[1]

Coordination failures can be rooted in delegation of discretion. For instance, the discretion that management has delegated to a given employee may turn out to be too much (e.g., because management underestimated the extent to which discretion interferes with a need for strict scheduling) or too little (e.g., to ensure smooth adaptation to changes in internal or external contingencies). Whether this results from an initial mistake or from changing circumstances, a coordination failure is the result. There are two main ways of making delegation of discretion credible and thereby minimizing coordination failures: (1) increase the cost of managerial intervention aimed at reducing delegation and (2) reduce the incidence of coordination failures that may result in managerial intervention. In the first case, delegated discretion is credible because the employee knows that intervention is unlikely to be a cost-efficient strategy for the manager. In the second case, it is credible because the employee knows that intervention is unlikely to be needed. We discuss both options below.

### Making Delegation Credible by Increasing the Costs of Intervention

As indicated earlier, a simple way to increase the credibility of delegated discretion is to design decision procedures and information structures that increase the costs of managerial intervention. Clearly, knowledge of these costs will make it easier for an employee to believe that the delegated decision rights will not be reneged.

***Formal decision procedures.*** Formal procedures that allow employees to influence decisions are an important means of supporting credible delegation. For instance, creating committees and procedures that allow employees to influence planning and control processes (Milgrom, 1988) may make decisions to be considered legitimate by the employees because they are seen as procedurally just. To the extent that employees care about procedural justice, it becomes more costly for managers to circumvent these processes in order to overrule employees' decisions or implement new projects – that is, to overrule or renege on delegated decision rights.

***Informational distance.*** Managers' information about the need for coordination and about the solution to coordination problems is also a factor that influences their incentive to intervene. In other words, designing the information and reporting procedures in the organization to create informational distance between managers and employees makes it less likely that managers will find it rational to overrule (Aghion & Tirole, 1997). Informational distance can be created by having reporting systems that only allow managers to gain access to limited information, by having information pass multiple hierarchical layers, or by increasing the span of control (the number of employees for which a manager is responsible), which in turn will create a heavy work overload for the manager (Galbraith, 1995). In sum, under such conditions credible delegation of discretion is reinforced by informational distance.

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1 Clearly, managers may also intervene for other reasons, such as observing that employees lack the required skills to perform their individual tasks or do not deliver the expected effort. However, we focus on managerial intervention that is aimed at solving coordination failures, as distinct from interventions that may be aimed at solving problems driven by employee-specific behaviors.

### Making Delegation Credible by Reducing the Need for Intervention

A second way to increase the credibility of delegation is to design the organization such that it is less likely that managerial intervention is needed. We focus on how coordination mechanisms that are more consistent with the delegation of decision rights, goal planning and mutual adjustment, can be aligned with the kind of coordination required in the organization.

Contingency theory broadly suggests that the effectiveness of an organization depends on the achievement of a fit between the contingency factors (e.g., the degree of task-related uncertainty and interdependencies) and organizational variables (e.g., coordination mechanisms and organizational structure) (Mintzberg, 1979, 1983; Siggelkow, 2001; Van de Ven & Drazin, 1985). Contingency theory suggests how managers can create a fit between those coordination mechanisms that allow for a great deal of delegation of discretion to employees (i.e., goal planning and mutual adjustment), the external contingencies, and the organizational structure in which the coordination mechanism is implemented. Creating a stable fit between the coordination mechanisms of goal planning and mutual adjustment and those contingencies that influence coordination needs reduces the likelihood of coordination failures, and, in turn, managerial intervention. Among the important factors that influence the choice of coordination mechanisms are interdependencies, task uncertainty, and organizational structure (here the focal design variable is job specialization).

***Interdependencies.*** Thompson (1967) proffers a widely used classification of interdependencies as pooled, sequential, and reciprocal.[2] *Pooled interdependencies* occur when employees can carry out their job tasks separately and with no need for interaction between employees carrying out other job tasks. The interdependency arises only because the tasks that employees carry out build on a common, limited pool of resources (funds, employees, equipment, etc.). *Sequential interdependencies* imply that one employee's job tasks need to be finished (or a decision taken) before another employee can carry out his or her job tasks. *Reciprocal interdependencies* are characterized by the fact that employees need to adjust their efforts simultaneously and/or in similar directions in order for them to coordinate on their job tasks. Central to our argument is that the different types of interdependencies require different modifications of organizational members' behaviors and therefore different types of coordination mechanisms (Grandori, 2001; Thompson, 1967). Pooled interdependencies allow a great deal of delegation of discretion to employees who can engage in independent experimentation and learning-by-doing without the organization having to suffer costs from lack of coordination. Coordination at the organizational level can be handled through the use of goal planning to ensure that common pool resources are used optimally. For example, employees can be delegated discretion to identify new products but they will be constrained by budget goals to ensure that financial and other common pool resources are not excessively used. Pooled interdependencies may exist at many different levels in the organization or in different functions. For example, product development firms can create a setting of pooled interdependencies when product designs can be made modular. Employees then can be delegated discretion to work independently on optimizing component functionalities within some broadly specified limits defined by the product architecture.

With sequential interdependencies, delegation of discretion to employees is constrained by the need for timely sequential exchanges of items or information in order to achieve coordination. Plans such as deadlines or specific flow diagrams and direct supervision (direction based on observation of employees' activities in different job tasks) are means of handling coordination of sequential interdependencies. Both plans and direct supervision imply managerial intervention in the activities that employees carry out. However, plans can be more or less detailed and deadlines can be more or less strict, allowing for some employee discretion.

Finally, if there are strong complementarities between tasks as in the case of reciprocal interdependencies, only reciprocal exchanges of items and information result in coordination (Milgrom & Roberts, 1990). Employees can be delegated discretion to handle reciprocal interdependencies through the use of mutual adjustment as a coordination mechanism.

2 As Puranam, Raveendran, and Knudsen (2012) point out, Thompson (1967) conflates task and agent interdependence (the latter is neither sufficient nor necessary for the former). In the following, the relevant interdependence is task interdependence.

Alternatively, mutual adjustment can be handled by plans and direct supervision. Managers may delegate discretion to employees on how to best adapt mutually interdependent activities when it is relatively easy to set goals for and measure the outcome of the mutually interdependent activities as opposed to supervising the input that employees put into the activities. Thus, the extent to which employees are delegated discretion to mutually agree on actions and activities depends on whether interdependent tasks can be grouped in ways that create a measurable outcome.

Another factor that influences the choice of coordination mechanisms is the level of uncertainty facing managers – in particular, whether managers have relevant knowledge of the interdependencies to intervene or to create contingent plans that address the relevant interdependencies. Direct work planning requires that most interdependencies are relatively well known, whereas mutual adjustment only requires that employees know whom to coordinate with. As sequential interdependencies are more easily identified than reciprocal interdependencies, the use of work planning is more likely to be effective with sequential interdependencies whereas the use of mutual adjustment is more likely to be effective with reciprocal interdependencies.

***Organization structure.*** The organization structure reflects the grouping of tasks and employees into different units. Organizations can contain functional as well as process-based units. We speak of *functional structures* when the permanent supra-units (i.e., departments) are formed on the basis of functional criteria (e.g., marketing, production, research and development) and of *process-based structures* when the permanent supra-units are based on work-flow interdependencies (e.g., permanent units are formed around the production of a well-defined output such as a particular product). Organizations differ with respect to whether most emphasis is put on groupings based on functions or on outputs. Matrix organizations represent a mix of the two principles for grouping activities. The grouping of activities in either functional or process-based units influences at what level of the organization different types of interdependencies emerge (Astley, 1985).

Organizations with functional units typically have pooled or sequential interdependencies within units allowing for different degrees of delegation of discretion to employees within functions. However, such organizations often have tight rules to regulate inter-unit interactions, as there are likely to be strong sequential or reciprocal interdependencies across units. Thus, the discretion delegated to employees within units is constrained by the need for coordination between units. Organizations that mainly rely on process-based units typically have contained most of the complex or sequential interdependencies within the process units. This allows for the delegation of discretion to employees to handle the within-unit interdependencies through mutual adjustment. Moreover, such organizations will typically have fewer interdependencies among different units such that there are few constraints on how employees exercise their discretion within units.

## Making Delegation Credible Through Organizational Fit

The perspective just outlined implies that delegation of discretion to employees can be most extensive when employees perform tasks where there are only pooled interdependencies and when managers can define and measure relevant goals that allow them to use goal planning to ensure effective use of common pool resources. Employees who are grouped into functional units are more likely to find themselves in a setting of pooled interdependencies compared to employees who are grouped into process-based units. However, the extent of the delegation of discretion to employees in functionally based units is circumscribed by the need for coordination among units.

Employees who face reciprocal interdependencies can be delegated discretion if they are grouped into units that contain the most relevant reciprocal interdependencies, such that employees can be granted discretion to mutually adjust their activities. This is most likely in organizations that group activity into process-based units. Moreover, units need to be defined such that relevant and measurable goals can be used to guide the discretionary employee behavior in ways that ensure coordination with the overall goals of the organization.

Contingency theory takes interdependencies among tasks as a given and asks how organizations can be designed to fit the contingencies they face. However, managers can to some extent influence the nature of interdependencies. For example, firms that change from highly integral product designs to modular product designs change the kind of interdependencies product developers face. Likewise, firms that move from production buffered by large stocks of inputs to lean production change interdependencies from pooled to sequential.

Making delegation credible in organizations thus depends on how managers influence the nature of the interdependencies among tasks carried out by employees. Managers who wish to make delegation credible should seek to use production technologies and buffer activities in ways that create more pooled interdependencies. Moreover, managers should group interdependent tasks to ensure that units contain reciprocal interdependencies.

## DISCUSSION

Delegation is particularly useful when employees are highly informed/knowledgeable and/or the organization needs to quickly adapt to high levels of environmental uncertainty. Knowledge workers tend to perform activities that are very sensitive to motivation, such as creative idea generation and problem solving. Autonomous motivation is an important determinant of value creation that can emerge from delegation. However, such motivation is also fragile and needs to be protected by making delegation credible. In this study, we have developed novel theory on how organizational design can support credible delegation. We focused on managerial reneging on promises to delegate, and on how the temptation to renege can either be made more costly or less likely to be needed. Restraining the urge to intervene serves to maintain employee motivation. Research suggests that it is inherent in the nature of the firm that a promise to delegate discretion from managers to employees is not in itself credible because such promises are not likely to be court-enforceable and because non-formal mechanisms are imperfect (Baker et al., 1999; Williamson, 1996). For this reason, firms that want to protect employee motivation should be designed in ways that add credibility to the promise to delegate discretion.

Our analysis implies that, in general, some of the opportunities for value-creating intervention that would obtain in a situation of full information must be forsaken, because the effects of managerial intervention on employee motivation are partly unpredictable. The resulting hands-off recommendation implies that inefficiencies are unavoidable, and this adds a new dimension to Williamson's (1985, 1996) argument that efficient "selective intervention" is generally not attainable. Similarly, Baker et al. (1999) analyze credible delegation in terms of self-enforcing, relational contracts. However, their treatment is rather abstract. In particular, it is not obvious to which organizational phenomena such contracts relate nor how they can be influenced by managers. We proffer two alternative and, arguably, more operational ways of making delegation of discretion credible. The first one is to choose design variables such as information structure and decision procedures so that the managerial cost of (and resistance of employees to) intervention is increased. The second one is to create a stable design configuration. This reduces coordination failure in the organization and diminishes the incentive for managers to intervene.

## LIMITATIONS AND FUTURE RESEARCH

### The Designer's Perspective

Throughout our discussion we have assumed that the organizational designer is in fact motivated to not only choose a level of delegation that fits complex or knowledge-intensive settings but also to make that level of delegation credible by means of certain design choices. The organizational design literature seems to assume that designers are benevolent (and often that they are so well-informed and powerful that they can pick and implement the efficient organizational design). However, this assumption contrasts with our point that managers/CEOs may be tempted to intervene under situations of uncertainty when the organizational configuration is no longer characterized by fit – which may be destructive of employee motivation. Clearly, if managers/CEOs are the relevant organizational designers, our argument entails that they recognize the need to exercise self-control by means of committing choices of organizational designs that hinder their own acts of intervention. Research shows that many individuals have difficulties doing this (Brocas, Carillo, & Dewatripont, 2004). A partial solution is to have other decision-makers involved in choosing the kinds of organizational designs that make delegated decision-making credible such as, perhaps, the board of directors. Another solution is to rely on market forces (cf. Alchian & Demsetz, 1972). Our theory predicts that knowledge-intensive firms with organizational designs that serve to make delegation credible will outperform knowledge-intensive firms without such design (all else equal). In any case, this problem points to the more general issue in organizational design theory that extant theory is virtually silent about the motivation, ability, and opportunity of organizational designers to actually implement the designs our theories identify and recommend.

### Individual-Specific Factors and Perceived Discretion

For the sake of simplicity, we did not include individual-specific factors in our model. In line with self-determination theory (Gagné & Deci, 2005), we argued that constraints placed on any employee's discretion lessen his or her autonomous motivation. However, research suggests that individual-specific and situational characteristics interact to affect the discretion that employees perceive themselves to possess (Carpenter & Golden, 1997). Furthermore, some employees may actually want or need some form of boundary on their discretion – for example, so that they can clearly define their work roles, appropriately structure their daily activities, or establish an identity at work. Such arguments are prevalent in role theory and in work on empowerment climates, a key dimension of which has been defined as "autonomy through boundaries" (Seibert, Silver, & Randolph, 2004). This suggests that, under person- and context-specific circumstances, some degree of managerial intervention might be harmless or even appropriate relative to motivation. For instance, employees who do not perceive that they have discretion in the first place (regardless of what their managers or the organization might say) cannot feel that they have been overruled (although they might be unhappy that they have never been given any discretion). Those who believe they have, and should have, substantial discretion will be more sensitive to that discretion being overruled. Future research should incorporate an analysis of how much discretion specific employees may expect and how they differentially interpret that discretion and reductions in it.

### Sub-Domains of Discretion

In line with the standard empirical definition of discretion, we have treated the construct as a single domain encompassing multiple aspects of an individual's work (Finkelstein & Boyd, 1998; Karasek, 1979; Morgeson, Delaney-Klinger, & Hemmingway, 2005; Spreitzer, 1995). Recent research, however, suggests that specific sub-domains of discretion – specific aspects of work with respect to which an employee may have discretion such as effort or goals, staffing, etc. – may have unique relationships with some antecedents and consequences, and should thus be distinguished (Caza, 2012). Consequently, our model may be further developed by considering whether organizational design differentially impacts the credibility of specific sub-domains of discretion.

### The Process Perspective

This study is not a comprehensive analysis of all relevant aspects of making delegation of discretion credible. Our focus has been on some salient characteristics of an organization in which delegated discretion is credible. In contrast, the process by which an organization reaches such a state – including issues of management rhetoric and how employees perceive the process of persuasion they are subject to – has been downplayed. A limitation is that we have neglected the way in which an intervention is motivated and communicated to employees. Instead of refraining from intervention, it is conceivable that managers can motivate and communicate an act of intervention to employees in such a manner that loss of motivation may be lessened.

This notwithstanding, our model also has implications for a process perspective. The analysis implies that, when firms make delegation credible at a certain level of the organization, it becomes much more costly for managers at higher levels to reallocate discretion to different levels. This has implications for the ability of firms to react to changes in their environment. For example, sudden changes in the environment may call for top-down coordination of many activities simultaneously. When discretion has been made credible at low levels of the organization, firms will not only lose motivation from such top down coordination, they will also face high costs in terms of greater employee resistance to the intervention, costs of re-designing the organization, etc. Similarly, the analysis also harmonizes with process analyses of the growth strategies of firms in terms of engaging in mergers and acquisitions. Often, firms need to make great alterations in business practices and in organizational structure in order to realize potential synergies in mergers and acquisitions. Firms that have invested in making delegation credible may find it more costly to engage in such activities.

***Empirical work.*** There is as yet no empirical work on the model that we have presented. However, empirical evidence speaks to some of the causal mechanisms we have postulated. For example, there is evidence for the negative impact that managerial intervention has on employee motivation (Robinson, 1996; Rousseau, 1989). The perhaps most directly relevant empirical work is Foss et al. (2006). They show that delegation improves motivation and managerial intervention harms overall firm performance. However, mechanisms such as managers staking their personal reputation, employees controlling important assets, and strong trade unions can keep managerial proclivities to intervene at bay. However, they concentrate less on organizational design. We take this to be first indications that the line of inquiry that has been pursued in this article is a promising one.

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