

Nathalie Richebé  
Audencia Nantes.Ecole de management  
8, route de la Jonelière  
BP.31222, Nantes Cedex 3  
02 40 37 34 91

Mohammed Bensaïd  
Université de Tanger

## **Organizational Rules, Knowledge Management and Organizational Learning** *(Academic track)*

**Summary :** The aim of the paper is to investigate organizational learning based upon a new typology of organizational rules, developed from Hayekian premises and some neo-Austrian theories of the firm. The premise of the paper is that knowledge is necessarily and radically *dispersed* in organizations. However, knowledge dispersion is not only a constraint; it can also be an organizational advantage. Organizational rules play a crucial role in the use of dispersed knowledge in organizations. Hence, a better understanding of this role is necessary to improve our understanding of organizational learning processes, both theoretically and practically. This perspective will lead us to consider that employment relationships do not only rely on authority, but also, maybe essentially, on employees' cooperation.

# Organizational Rules, Knowledge Management and Organizational Learning

## Introduction

As early as the late 1930s, Coase endorsed the concept of the organization as a place for coordination “by the entrepreneur” (i.e. planned) to explain the existence and size of organizations. However, the rules of organization he describes are essentially prescriptive, reducing the job relationship to a relationship of pure subordination and coordination in the organization, thus to centralized coordination.

Simultaneously with Coase’s publication of “the nature of the firm” (1937) Hayek, in “Economics and knowledge” (1937), formulated a theory of economic coordination that even if it was used to counter adherents of socialism, laid the foundations of a theory of organizational coordination that is more compelling than that of Coase. This theory, as Hayek would clarify only later (1964, 1973), introduces a highly innovative concept: *dispersion of knowledge in the organization* induces at least partial decentralization of coordination by rules. Everything cannot be planned and “top-down” and the function of organizational rules is not solely to prescribe, but also to enable employees to make decisions according to knowledge that they alone access. The hierarchy may issue the rules, but it is the employees that interpret the rules *in situ*. Far from hampering coordination, the existence of leeway for rule interpretation makes coordination possible.

Yet what guarantees, that the rules will be interpreted—as Hayek presumes—“in keeping with commands” issued by the employer? What motivates employees to cooperate? Although these questions surface throughout Hayek’s body of organizational analysis, we contend that he does not answer them satisfactorily. Hayek’s analogy between market coordination and organizational coordination prompts recognition of the employees’ decision making autonomy, which underscores the problem of organizational cooperation.

There is a close link between the problem of dispersion of knowledge and that of cooperation. This article analyzes this relation in light of the Austrian theory of the firm and the theory of social regulation developed by Jean-Daniel Reynaud (1992). We propose a typology of organizational rules that demonstrates how rules emerge and evolve not only under managerial influence, but also “spontaneously”, as a result of decentralized initiatives

of actors that make up the organization. This typology is useful for at least three reasons. First, it provides a clearer vision of the complexity and potential diversity of coordination processes within the organization. Second, it clarifies the link between organizational learning and organization rules by demonstrating the vital importance of employee cooperation for the organization. Lastly, it elucidates the ways in which *knowledge management* can be a source of organizational learning.

### **The organization as a system of rules**

Hayek asserts that coordination takes place through two distinct types of order, organized order and spontaneous order. Organized orders are characterized mainly by the fact that they obey human design and are essentially managed by command, that is concrete<sup>1</sup> and formalized rules. In contrast, spontaneous orders are complex systems, whose foremost trait is they are not “the result of human design” even if they are “the result of human action” (Hayek, 1973, p. 43). They thus obey abstract and non-finalized rules.

This dichotomous definition of types of orders can lead to confusion if its epistemological status is not specified. In effect, if it is considered a descriptive tool, this definition may considerably impair the perception of the complexity of real orders and organizations. In addition, the dichotomous definition must be perceived as merely the first analytical step. Transcending this dichotomy requires the definition of richer analytical categories, as in Langlois (1997). Beginning with the distinctions between spontaneous and created origins, and between directed and spontaneous functioning, Langlois proposed the following typology<sup>2</sup>:

#### Typology of orders

	Directed functioning	Spontaneous functioning
Pragmatic origin	Pragmatic organizations (1)	Pragmatic orders (2)
Organic origin	Organic organizations (3)	Organic orders (4)

<sup>1</sup>A rule is concrete when it applies to a *limited* number of situations known in advance. A rule is abstract when it applies to an *indefinite* number of situations that share some typical recurring traits (See Hayek, 1973).

<sup>2</sup>Langlois modified a typology developed by Vanberg (1994), who in turn was inspired by a combination of the theses of Menger (distinction between pragmatic and organic origins) and those of Hayek (distinction between spontaneous rules of order and organization rules).

*Source:* Langlois (1997, p. 64)<sup>3</sup>.

Langlois' typology is clearly one of orders whereby the two initial Hayekian categories occupy boxes (1) and (4) respectively. Two new categories are introduced: organic organized orders, which function as organizations but whose origin is spontaneous<sup>4</sup> (Box 3) and pragmatic spontaneous orders that are spontaneous orders whose origin is deliberate<sup>5</sup> (Box 2). This typology undeniably represents an enrichment of the Hayekien typology, notably because of more consistent integration of the *temporal dimension*. The origin of orders is thus clearly differentiated from the way in which the orders function and evolve.<sup>6</sup>

Transposed to the organizational context, this typology appears substantially more informative if it is converted into a typology of rules. Accordingly, we propose two distinctions. First, we can differentiate rules *by origin*. Beginning with the observation that rules have authors and addressees, Reynaud (1992) suggests that rules be divided into "control" and "autonomous" rules. Control rules (CR) are issued by top or middle management of the organization, in order to orient individual behavior in a direction compatible with the strategy formulated by management. Autonomous rules (AR) are created by actors of the organization, in a decentralized fashion (while remaining consistent with the organizational strategy), and are intended to serve their own designs.

Furthermore, Langlois' typology yields a second distinction. Regardless of origin, organizational rules have a life and are not static. They are interpreted and evolve according to interpretations. Two cases thus ensue. First, rules can function autonomously: they evolve independently of management's strategy. They can also be guided, i.e. tools at the service of this strategy.

This dual distinction allows the construction of a typology of rules that captures the complexity of the organizational coordination process. A simple opposition between centralized coordination and decentralized coordination or spontaneous and organized order is not satisfying. The number and intention of "control" rules do not detract from the fact that these rules control individual actions and effectively allow orientation of these actions with the organizational strategy.

The intersection of these two distinctions thus elucidates *four types of rules*:

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<sup>3</sup>The terms "origin" and "functioning" do not appear explicitly in Langlois' initial table, but rather in the body of the text.

<sup>4</sup>Langlois (1997) provides the example of a bureaucracy as analyzed in the *Public Choice* literature.

<sup>5</sup>The typical example is that of constitutions.

<sup>6</sup>For an alternate treatment of Langlois' typology, see Garrouste (1999).

### Typology of organizational rules

	Guided functioning	Spontaneous functioning
Deliberate origin	Organized rules of deliberate origin (R1)	Spontaneous rules of deliberate origin (R2)
Spontaneous origin	Deliberate rules of spontaneous origin (R3)	Spontaneous rules of spontaneous origin (R4)

“Pure” organized orders therefore represent only a borderline case in which only the R1 rules exist; and “pure spontaneous orders, a case in which only the R4 rules exist. The general case – that of complex and dynamic organizations – consists instead in the coexistence of these different types of rules. The distinction between these four types of rules allows a better understanding of the change process of rules in the organization; that is the organizational learning processes; and the role that knowledge management can play in these processes.

#### R1 rules as a support for “planned” organizational learning

R1 rules or command rules<sup>7</sup>, are rules issued on the initiative of management, intended to ensure compliance with a number of principles that management considers fundamental, such as some production standards (product quantity and quality, production *process*) and administrative rules that the company is bound to apply (work time, compensation rules, hygiene rules, etc.). These rules are invariably “top-down” and trigger sanctions if they are not applied (economic sanction if the product does not correspond to the quality requirements of consumers, legal sanction in the case of non-compliance with a rule of law).

Within the hierarchy of rules that make up the rule system of a firm, R1 rules occupy a central place for two main reasons. First, they are the primary condition for the organization’s existence. An organization is above all a project, albeit not a static one. It cannot retain its organizational identity if it must transform completely into a spontaneous order. This partly

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<sup>7</sup>Hayek (1973) distinguishes between specific commands and organizational rules. To homogenize the categories used in this text, we prefer to use the terms “command rules” or R1 to designate what Hayek calls specific

accounts for management's constant preoccupations with maintaining the hierarchy of rules<sup>8</sup>. Moreover, R1 rules situate the company within a larger institutional space, because they are in principle guarantees of the company's compliance with principles and rules issued by external institutions (labor code, collective agreements, etc.) or of rules that the organization has defined (for example, codes of conduct that currently proliferate, as shown by Sobczak, 2001).

Under this concept of organizational rules, the company essentially expects that individuals obey, apply (and even *internalize*) standards and principles shared with other individuals. The power of coordination of these rules arises from individuals' not questioning their pertinence (Orléan, 1994) and applying the rules *quasi*-automatically. The existence of these rules in an organization allows *centralized* coordination. The evolution of R1 rules results from a managerial initiative, as it attempts to generate internal spinoffs from changes that occur in its external environment.

The concept of coordination in the organization dominates classical theory of the firm; in particular the works of Coase (1937) and Taylor (1903). Yet even if R1 rules are necessary for the functioning of the organization, they do not suffice to ensure organizational coordination, and provide an incomplete picture of the organization.

#### R4 rules as a "spontaneous" organizational learning support

The rules that we have labeled R4 rules are of spontaneous origin – i.e. they were not designed to serve the strategy of the organization. In addition, they function spontaneously, i.e. clandestinely, independently of management's objectives. These relatively tacit rules result from decentralized interaction between the different actors within the organization. A substantial portion of the knowledge and practices applied by employees in organizations fundamentally eludes management planning and control, because the division of labor in the organization exists in parallel with a division of knowledge (Loasby, 1998).

It is important to clearly define the term "spontaneous". We do not contend that employees act unconsciously or intuitively and that rationality is the exclusive preserve of management. R4 rules and knowledge are often the outcome of deliberations and quite intentional concerted acts, along with strategies formulated by individuals or work teams. However, the consequences of these deliberations are often unanticipated by management,

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commands. Hayek's organizational rules will be designated R2 rules. The association between command and R1 rules is justified by the fact that these rules are considered *a priori* completely planned and controllable.

management has only very partial knowledge thereof. *A priori*, the rules do not ensue from a strategy and do not fulfil its objectives. The evolution of R4 rules is thus “spontaneous” and *a priori* unforeseeable.

Note that, similar to R1 rules, R4 rules considered in isolation allow only an incomplete analysis of organizational coordination. Coordination cannot take place without “control”; a company carries out a project (at which it generally succeeds) and is not reducible to the designs of the individuals that comprise the organization.

R1 and R4 rules can be considered as two opposite borderline cases of rules. In the case of R1 rules, the rules evolve solely upon the initiative of the organization and in accordance with its strategy. This phenomenon can be called “planned” organizational learning. If individuals learn, it is in a minimal sense. In contrast, R4 rules evolve under the influence of decentralized individual initiatives. The evolution of rules is “the result of human actions, not of their designs.” In this case, management and its strategy play a passive role in the learning dynamics. “Spontaneous” organizational learning then takes place.

The evolution process of R1 and R4 rules therefore has a common feature: organizational learning does not result from the *interaction* between individual strategies and those of management. Management’s knowledge and individual’s knowledge do not interact : they evolve independently. In spontaneous organizational learning as in planned organizational learning, there is no “transition” from the collective level (company strategy) to the individual level (individual strategies) and vice versa.

This transition would require a supplementary level of learning. “Spontaneous” rules can be harnessed to serve the management strategy, and reciprocally rules created to be prescriptive and allow “planned” learning can be “diverted” by the actors and then undergo a largely “spontaneous” evolution. R1 rules, like R4 rules, can be transformed. In this case, it is not only the rules that change, it is the evolution process itself that changes. We show that it is at the second level of learning – which corresponds to “compound” forms of the rules (R2 and R3) – that knowledge management plays a central role.

#### Interpretation and adaptation of R2 rules to the context as a source of organizational learning

R2 rules are defined for planning purposes but give rise to interpretation that deviate considerably from the letter and even the spirit of these rules. For example, they may comprise a set of production procedures that are observed to be not at all applied “on site.”

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<sup>8</sup>. This is confirmed in the recent Hayek-inspired literature on leadership in organizations. See Foss (2001), Ioannides (1999a) and Witt (1999).

Other procedures are actually followed. This “autonomous” evolution of rules issued by management can take on at least two forms:

(a) It is often not possible (or advisable) to exhaustively specify everything that individuals must perform : “control” rules are always general and incomplete because they are necessarily interpreted in relation to employees’ knowledge and “particular circumstances”. That is why the irremediably *dispersed* nature of knowledge in the organization must be recognized. A typical example of R2 rules are rules that set a general objective but grant individuals leeway in the choice of procedures to best attain the objective. The existence of such rules then abides by a *knowledge management strategy* of the organization executives. That is why organizational rules cannot – as Hayek illustrated– be prescriptive. Incompleteness of these rules is necessary to enable employees to mobilize their “local” knowledge to which they alone have access.

(b) However, prescriptive rules (R1) can also be ill adapted or poorly designed. In these cases, interpretation by employees consists not only in providing content to a general rule; it may also entail *correcting* this rule if necessary, not by applying it to the letter, but by transforming it – sometimes radically. This is the role –and the advantage- of ”autonomous regulation” (Reynaud, 1992). It is advisable for management to overlook such practices and to *tolerate actors’ transformation of R1 rules’ into R2 rules*. This approach does not consist of a strategy formulated at the time of definition of the rules. Undoubtedly, rules are generally defined without *a priori* knowledge that they must be corrected, and that these corrections will be made by those governed by the rule. Management of the organization notices the well-foundedness of these corrections only *a posteriori*. Moreover, this does not signify that it then decides to institutionalize or formalize the corrections. On the contrary, management may choose to preserve the clandestine status of these corrections and display tolerance by “turning a blind eyes” to them. We will revisit this problem below, in our analysis of “type 3” rules. In cases (a) and (b) described above, the *cooperation* of employees is therefore essential for these rules to be effective knowledge assessment tools.

From the inverse perspective, cooperation may encounter at least two types of obstacles.

- First, the rules of control can also be *distorted* by actors for their own purposes. Interests within an organization are evidently divergent, and employees’ uses of their available leeway in the interpretation or application of the rules does not necessarily correspond with the objectives of management: a “top-down” rule can be distorted by the



particular interests of the addressees, Interpretation of the rules then engenders conflict between management and employees. Regulation in an organization is evidently conditioned by power struggles therein, and rules that emerge are *also* the fruit of the actors' strategies. Crozier and Friedberg (1977) underscore this argument by defining "zones of uncertainty" linked to organizational rules. The authors show that for a hierarchical superior, the possibility of interpreting a rule more or less strictly (for example the rule regarding arrival times at the office) is a source of power, because he can exchange his "tolerance" for employee cooperation and, where necessary, can threaten to apply the rule more strictly.

- A second form of "non-cooperation" consists not in distorting the rule but paradoxically in applying it in its strictest sense; that is refusing to do the "job" of interpretation, i.e. to add to the rule as we have described above in cases (a) and (b). This idea is well captured by the concept of "withdrawal." A form of "passive resistance" of disgruntled employees, withdrawal or apathy consists in "folding one's cards," doing as little as possible while remaining within the strict framework of what the company can rightly require of its employees and is able to control.<sup>9</sup> Such a reaction does not explicitly call into question the formal conditions of the salary exchange, but undermines cooperation within the company.

Then, Organizational learning can be defined as *a transformation process of R1 into R2*. It is manifested by the invention by members of the organization of solutions where none were foreseen (in accordance with the general framework of rules), by correction of existing solutions or by "supplementing" these rules in compliance with management objectives. Inversely, withdrawal or distortion of the rules can be considered hindrances to this type of learning. Knowledge management, in this case, is management of the autonomy individual have in the interpretation and adaptation of rules designed by management when dealing with dispersed knowledge.

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<sup>9</sup> This concept provides a noteworthy definition that exemplifies the opposite of cooperation. It was introduced by Alain Touraine (1965, p.384) as "a renunciation resulting from dissatisfaction and disappointment." Sainsaulieu (1977, p.91) showed that withdrawal, defined as "a rejection of the rule," is a source of power for actors because it protects them from "the arbitrariness of the chief." Jean-Daniel Reynaud (1997) draws the parallel between this concept and that of apathy, developed by Guy Bajoit (1992). Withdrawal, as defined by Jean-Daniel Reynaud, and apathy both constitute a distinct and complementary reaction of defection, protesting or loyalty described by Hirschman. Apathy presumes both apparent passivity in response to calls for cooperation and an opportunistic attitude by the employees, who are seeking compensation for a work situation that they perceive to be unsatisfactory. Bajoit emphasizes the theme of opportunism at work in his 1992 study (see for example p.147).

### Appropriation of innovation by employees, or rationales for R3 rules

R3 rules are rules whose origin is spontaneous but which are “taken up” by top and/or middle management because they believe the organization can benefit from the continuation and/or generalization of some of the rules that individuals spontaneously discover and learn. R3 rules are therefore the outcome of a *transformation* of R4 rules. This transformation takes place in several steps: detection of innovations of employees, selection of these innovations and eventually the introduction of an appropriation mechanism, extension and/or preservation of these innovations. Moreover, if the process supports a strategy, company management can put in place a mechanism that encourages innovation (in the form of premiums or individual salary increases, for example).

R3 rules may result from a knowledge management strategy. For example, management may decide to introduce an efficient procedure discovered by one of the shops to several other shops. Another example is when a more efficient form of organization of work “emerges” locally (in a shop or organization) and management opts to revise the standard accordingly. In general, all situations where management intentionally observes what is happening “onsite” as a fact-finding exercise may give rise to R3 rules.

Very often, this “appropriation” of rules by management necessitates a minimum of transformation of the rules, if only to provide partial explanation.<sup>10</sup> This transformation may lead to *formalization* of the rules (for example by producing a written guide that can be easily distributed). Yet the transfer of knowledge that the emergence of R3 rules presumes can also take the form of transfer of expertise, that simply entails the movement of one or several individuals who are instructed to teach the others *how to perform*, but which does not necessarily imply that they explain *what they are doing* and *why they are doing it*.

Here again, *transformation of rules (in this case from R4 to R3) rests essentially on employee cooperation*. If the employees do not want to draw on their cognitive resources to serve the organization, this transformation is impossible. This reaction is a particular form of withdrawal whereby the employees can continue to perform their everyday work “well” and to apply diverse knowledge, but intentionally do not inform their hierarchical supervisor of the knowledge that they develop, and refuse to explain or apply the knowledge to “serve” the organization.

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<sup>10</sup> To clarify this point, we consider that explanation of the rules can only be partial. A total explanation has no meaning, because the limits of a rule are never clearly specified. What is (or can be) explained: the general statement? In which form? How precise should the rule be?

This form of organizational learning is therefore contingent on the capacity (and/or the willingness) of employees to innovate, invent novel solutions and take initiatives by going beyond the existing framework. Individuals are the origin of rules, but it is management that initiates the collective learning process by identifying innovation, and by subsequently disseminating it and/or maintaining it. Learning – and the capacity of management to manage knowledge - depends here on the individuals' desire to apply what they know and have learned for the organization's benefit. This willingness depends in particular on employee's strategies concerning the use or preservation of "zones of uncertainty" related to holding knowledge and specific expertise (Crozier and Friedberg, 1977), because these strategies constitute employees' sources of power. Learning is purveyed by the incentive for innovation and the degree of autonomy granted to employees. Moreover, errors or inefficient initiatives must not be punished by harsh sanctions, or employees may associate innovation with an overly high risk level.

## Conclusion

Awareness of these four types of rules facilitates recognition of both the complexity of the organizational coordination processes, that entail several forms of organizational learning, and the limits of a centralized concept of organizational coordination. Employee cooperation is crucial for the viability of an organization. This cooperation is manifested in several forms: compliance with rules and internalization of standards that structure the organization (R1); use of particular knowledge to benefit the organization, which is achieved by supplementing or modifying the existing rules (R2); invention of new rules that can benefit the organization providing they are formalized, maintained and/or extended (R3); and participation in an autonomous or “spontaneous” regulation process required for the efficient functioning of the organization (R4).

These rules are not fixed or isolated from each other, because one of the main engines of organizational dynamics is indeed the process of *transformation* of rules from one type to another. In effect, R1 rules can become R2 and even, it seems difficult to imagine, rules that remain “purely” R1. Those covered by the rules are never completely passive in relation to the rules. Moreover, R4 rules tend most often to evolve into R3 rules. It is quite rare that employees’ inventions and initiatives are totally ignored by management, and that the organization does not react. This analysis then highlights the complex interaction between spontaneous and deliberate aspects of organizational coordination, and the need for coherence between these different types of organizational learning.

The analysis of organizational rules has the merit to introduce, in organizational learning theory, some central aspects of modern organizations such as dispersed knowledge, diversity of knowledge sources and of coordination processes, difficulties to transmit and to combine personal and tacit knowledge. It shows that knowledge management may take different forms and meets different limits, mainly due to employees’ desire to cooperate.

Finally, the paper shows that organizational learning processes crucially depend on employees’ cooperation. Consequently, dispersed knowledge management does not rely only on informational or cognitive mechanisms. Incentives tools and fairness considerations play a central role - as shown by Hayek - which may induce different types of cooperation behaviors. That is, knowledge management strategies are human resources strategies.

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