

# Cross and Call: A Network Model of General Management

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**ABSTRACT:** This paper seeks a model of general management suitable for postclassical organisations, for networks. It distinguishes postclassical, or network organisations from both classical, or corporate, organisations and modern, or formal, organisations, and then sketches a sociological model of general management. General management relies on products, media and markets in networks to integrate identity with control. It relies on evolution to integrate variation, selection, and retention. It relies on people to monitor possible communication and contingent interruption. It relies on people's actions and awareness conforming to the work and products offered, the capital needed, and the style of organisation implemented. General management consists of an oscillation between the crossing and the calling of the distinctions necessary to maintain a form of cognition, which links, and differentiates, indices of relevance that stem from radically differing domains, from the mental to the social, from the technological to the cultural, from the organisational to the economic. Crossings re-determine the variables the form of the enterprise relies upon. Callings insist on precisely the same distinctions essential to any enterprise being consistently drawn and re-drawn. That is why crossing and calling is the most widespread communication mechanism of general management.

## I.

Consider organisations. In history there are three dominant cultural forms, if "cultural form" here refers to the way the society deals with surplus meaning brought about by the introduction of new media of communication. We may distinguish three media of communication, whose introduction into the structure of society changed profoundly the way people are able to handle information, namely the medium of *writing*, introduced in ancient cultures, the medium of *print*, dominant for modern culture, and the medium of the *computer*, pervasive in contemporary society. Niklas Luhmann proposed appropriate definitions of three cultural forms for dealing with the challenges brought about by the introduction of these media, (a) Aristotle's *telos*, distinguishing between purpose and non-purpose, and discriminating perfection from corruption, (b) Descartes' *restlessness*, distinguishing between equilibrium and non-equilibrium, and discriminating control and memory from surprise,

disappointment, and learning, and (c) something like Spencer-Brown's *form*, distinguishing between knowledge and ignorance, and discriminating reliable operation from indeterminate context (Luhmann 1997a, pp. 405-12; cf. Baecker 2004, pp. 124-149).

The corresponding cultural forms of organisation are the classical corporate organisation, the modern formal organisation, and the postclassical network organisation, the first one insisting on legitimate purpose, the second one on rational decision, and the third one on global commitment. We do not go into details here, since the intent of this paper concentrates on the general management form in the postclassical network organisation, but we will indicate very roughly the formal characteristics of these three cultural forms of organisation.

The corporate organisation of the literal society builds upon Aristotle's idea of *telos*, as expressed, for instance, in his dictum, "the reasonable man, at least, always acts for a purpose, and this is a limit; for the end is a limit" (*Metaphysics*, 994b). Using this idea, the literal society proved able to deal with the explosion of surplus meaning brought about by the introduction of writing, which made it impossible to deal with meaning on the previous basis of interaction and control by regarding a present other. Communication via writing means that what is absent can be simultaneously present (Derrida 1967). The institutionalisation of the corporation accordingly builds on purposes, which may be maintained regardless of irritations and perturbations confronting the people working for the corporation. The corporation is the incorporation of purposes, or better still, the incorporation of different people via their commitment to the purposes. That is why the idea of official positions and their authority is one of the most important universal factors in the evolutionary universals of society (Parsons 1964, p. 347; Smith 1975). The formal characteristics of the classical corporate organisation, using the notation of G. Spencer Brown's calculus of indications (Spencer Brown 1969), may then read as follows:

$$\text{corporate organisation} = \boxed{\text{purpose} \mid \text{disturbance}}$$

This means that the organisation focuses on the indication and definition of purpose and includes the observation of disturbances in order to be able to prevent them interfering with operations. Since purpose and disturbance are not only distinguished from each other but also the two variables of one form realising itself, disturbances are as important in monitoring the circumstances of the world in which the organisation is acting (politics and economics,

culture and technology, art and religion, members and clients, obedience and resistance) as the purpose is important in correcting for deviations (Rosenblueth/Wiener/Bigelow 1943).

The formal organisation of the modern print society builds on Descartes' idea of restless and considered self-reference as expressed, for instance, in his recommendation of a *morale par provision* as long as true and certain knowledge, due to the absence of reliable methods of thinking, is not yet available (Descartes 1637). This idea, among and in interaction with others, allowed people to deal with the explosion of meaning brought about by communication via print, not only in books, leaflets, and papers, but also through bank notes, bonds, letters of indulgence, and certificates. Purpose was no longer able to deal with this. The new idea is to look for self-reference, as incorporated, for instance, in the concepts of *self-interest* and *amour de soi* (Gunn 1968; Luhmann 1980a). The most intriguing idea of modernity, with respect to organisation, is the idea of rational decision-making, rationality here still focusing on purpose, yet anchored not in the *teloi* of the natural states of society, but in individual considerations of self-interest. This gives the following formalism:

$$\text{formal organisation} = \boxed{\text{risk} \mid \text{rationality}}$$

Risk is the value attributed to necessary decisions that cannot be based on whether they are right or wrong at the point of decision. Risk is the value at the focus of all practice, be it social, technological, or mental (i.e., judgment). Indeed, it is identical with practice which places maximum emphasis on that practice's ability to deal with it. Organisations, as does modern society in general (Smith 1776), maintain social, temporal, and material states of equilibrium, the rule of which is that "the competitive allocation of risk-bearing is guaranteed to be viable only if the individuals have attitudes of risk-aversion" (Arrow 1974, p. 121). That is why rationality is the reflective value determining risks to be taken and decisions to be legitimized. Rationality is the variable that defines the procedures of formalisation that allow decisions to be considered as taken correctly, that is with respect to all due criteria of information, coordination, and prudence, even if, and exactly when, they turn out to have been the wrong ones (Harrison/March 1984; Abbott 1988; Stinchcombe 2001).

The postclassical or network organisation of the computer society relies on *forms* or, alternatively, on *flows* to deal with the surplus meaning produced by communication via computers, which in turn add their memory, their search algorithms and their social software to produce "lifestreams" of information for scientists in data networks, for traders on markets,

journalists in news networks, and for other users of blogs, wikis, and journals (Gelernter 2000). *Form* here means that computer users watch out for the indications of what is possible right now, while checking for indications of whatever else they may possibly switch to, or from. Form is a concept brought in by G. Spencer Brown, who calls a "form" an indication of a marked state together with its distinction from the unmarked state (Spencer Brown 1969). *Flow* is a similar idea, if less well-defined, describing spaces consisting of heterogeneous layers of electronic impulses, nodes and hubs, and of social actors who have to link to each other in order to define architectures of practices or a design and discipline of communication (Castells 1996). Both forms and flows thrive on decision situations which do not admit of decision, since, to quote Heinz von Foerster, "only *those* questions that are in principle undecidable, *we* can decide" (von Foerster 1993a, p. 73).

Ironically, the concept of the network organisation starts with a critique of the rational organisation, itself no longer considered the guarantee of self-referential restlessness, but rather of an enervating mode, blocking action, and of a fatigue killing all kinds of reliable motivation (Peters/Waterman 1982; Brunsson 1985; Brunsson 1989). The postclassical organisation, accepting with social sciences, evolution theory, modern physics, and mathematics the undecidability of the world (Smith/Plotnitsky 1995), does away with both purpose and reason as the leading ideas of organisation (they both re-enter the field via a rhetoric of action) and goes instead for membership, asking what kind of motivation, i.e., interests, needs, beliefs, fears, and visions, is available that will commit what kind of members (employees, managers, clients, investors, and others; see Simon 1945, chap. VI) to what kind of participation:

$$\text{network organisation} = \overline{\text{membership} \mid \text{motivation}}$$

A wealth of commitment-enhancing programs, from empowerment of employees and customer binding via incentives for managers up to models for generating stakeholder and shareholder values and the integration of value chains, envisage different types of membership and different types of motivation being networked into clusters of disciplines (Pratt/Zeckhauser 1985; Zukin/DiMaggio 1990; White 1992). Both membership and motivation focus on the natures of the individual, or the "people" involved, and of the organisation being most improbable matches for each other and hence relying on networks to go for possible fits (Luhmann 1964; Luhmann 2000). The context for this form is neither

institutionalisation nor formalisation, but globalisation in the sense that the world is the only context to monitor the attractiveness of both a given commitment and alternatives to it.

All three formalisms blend into each other in actual organisation. That is why we try to distinguish them. General management today consists in knowing exactly which rhetoric to pay lip service to and what structure of communication to attend to. We here sketch an extensive research program linking actual styles of general management with historical states of organisation depending on the dominant media of communication in society. We do this in order to both generalise a possible notion of general management out of its far too teleological and rational version, as entertained in management sciences, and to specify more closely the particular features of management, which have developed in the context of profit-seeking organisations. Our next step, in this paper, is to look at a possible model of general management, focusing on the postclassical network organisation. We conclude with some remarks on the communication of general management decisions.

## II.

We are looking for a model of general management. The most general approach possible, within sociology, is to start with society. General management takes place, in action and in situ, within society. It is a social endeavour relying on, and conditioned by, a society we take to be the most general formalism available to frame the recursive reproduction of communication. That formalism (Tilly 2004), depending on the sociology you embrace, describes families of solidarities of complementary opposites (Durkheim 1893), associations via surfaces and envelopes of claims to possession (Tarde 1893), individuals receiving their identity from fragments of social intercourse (Simmel 1908), conventions of distinctions between inclusion and exclusion (Weber 1921; and Platon, *Politeia*), or functions to reproduce communication via the maintenance in time of distinctive systems from a given environment (Parsons 1966; Luhmann 1980b; Luhmann 1997a). The mechanism underlying these formalisms is communication, i.e. recursive operation within a system of double closure (operation *and* self-regulation) linking not cause and effect, but the determinate with the indeterminate (Ruesch/Bateson 1951; Luhmann 1984; von Foerster 1993b; Baecker 2005a). A calculus embeds the mechanism within the formalism. It is a calculus of indications via distinctions, linking variables via constants (Spencer Brown 1969), combining them into a network of a collection of elements that is self-correcting for imbalances, depending on choices to be taken in situations of indeterminacy (Kauffman 1978).

Any model of general management is one constructed by an observer, who may be a social scientist relying on indications of the social, an engineer relying on indications of the technical, a member of a more general public relying on indications of production, work, capital, and ethics, or an organization relying on indications of the business it is in, its organizational culture, and of the ecology it is situated in. Our model is a social scientist's model of a general management observing itself via self-organizing structures of markets (Baecker 1993; Baecker 2006a). That is, we base our model on ideas of second-order observations, developed by second-order cybernetics, social systems theory, and social network theory (von Foerster 2003; Luhmann 1995; White 1981; White 1992; White 2002). We conceive of general management as a function constructing itself out of links it entertains with selected others within a network controlling identities. Networks describe ties within a structure of centre and periphery, which is precarious, contested, and uncertain, consisting of both actual and potential identities acting to strengthen and weaken, to complement and substitute the links within it. The centre maintains the stakes everybody is competing for, and the periphery plays with the stakes to either win them or change the game (e.g., Faulkner 1983). A self-organising pecking order among the identities involved defines how situations are to be interpreted, which situations are to be avoided, and how conversations are to be fine-tuned to meet the confidence-rules in play and to evoke the contexts thought to be politically correct (Sacks 1992; Silverstein 1992).

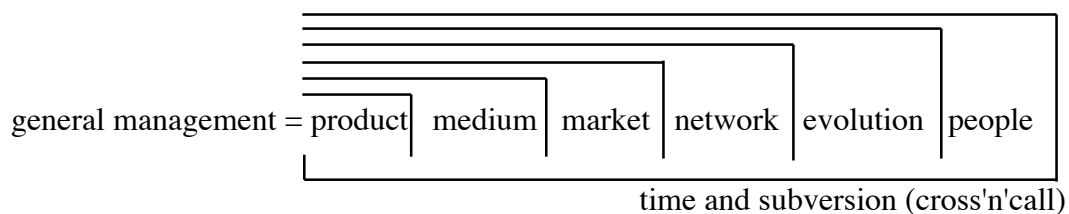
The complexity of second-order observations within networks of this kind is evident. Yet, it is self-reproducing, so there must be mechanisms and formalisms to reproduce it, possibly of the kind we already suggested. Our thesis is that the complexity emerging is a self-referential, even fractal complexity generated by a constant set of distinctions between variables that have a certain scope of indeterminateness that is itself determined by those variables' capacity for self-determination with respect to all other variables (Holland 1998; Abbott 2001).

We propose a model of general management as a form, which starts with the distinction of products and continues with indications of medium, markets, networks, evolution, people, and an unmarked outside, to build a complexity able to sustain itself. "Form" here means, relying on Spencer Brown's "Laws of Form" (1969), an indication of the operation of distinctions, bringing forth a marked state or, inside of the distinction, an unmarked state outside of the distinction, and the separation itself between the two sides of the distinction. We deal with the three values of a two-sided distinction. The first value is marked state, the second value, the unmarked state, and the third value, the distinction itself, being neither marked nor unmarked state and thus rendered invisible the very moment it is being done. You

have to look at the observer drawing the distinction, or at the *forme mediale* presupposed by it (Derrida 1968), in order to be able to infer it. That is why we construct a model that is both explicit about the object being observed, the enterprise, and the subject doing the observation, a social science perspective, which takes the enterprise to be self-observing. A basic indeterminateness is present with both (Luhmann 1997b).

We need one more complication to construct our form model of general management. We have to provide both for self-identical reproduction and for self-identical change, both identities, to be sure, being identities within networks, e.g. populations and ecologies of organisations (Hannan/Freeman 1977; Abbott 2005). Again in accordance with Spencer Brown's terminology we speak of "time" with respect to self-identical reproduction, and of "subversion" with respect to self-identical change (Spencer Brown 1969, chap. 11). Time is the space needed to make sense of the variables asserting their value within the constant arrangement of distinctions; subversion is the testing of the constants with respect to possible other values of the variables. Think of a general model of sense-making by, and within, organisations to encompass both time and subversion (Weick 1979). Think of leadership emphasizing time, of entrepreneurship emphasizing subversion, and of management making both the distinction and the connection.

Thus, we introduce a model, which, in its own form, oscillates between the two states of identical and non-identical reproduction, that is, between "time" and "subversion":



We speak of crossings with respect to the use of the distinctions in order to change the value of the variables, and of callings with respect to the use of the same distinctions in order to confirm the value of the variables. Much managerial skill, then, consists in changing the values while confirming them, calling upon certain variables in order to change the value of others, thus turning subversion into time, and vice versa. That is why we propose to call the managerial operation by the name of "cross and call". Actual management oscillates between identical and non-identical reproduction, never being sure whether it is in the state of time, or

in the state of subversion, thus producing both the memory and the indeterminateness it is relying on to be called, by itself and by others, a general management.

The first indication is both the most arbitrary and the most determined one, as it is not only the distinction derived from an imagined decision of where to begin, but also a distinction viable only if embedded at once within contexts of affirmation, reflection, and possible variation (Shackle 1979; Schumpeter 1912; Kirzner 1979). It is the indication of a *product* within the context of its distinction from the *medium* of the possible dissolution and recombination of its elements (Heider 1926). That includes the fact that sometimes, literally, "the medium is the message" (McLuhan 1964). Looking at the product, consuming it, may actually mean to perform and consummate the range of possibilities it connotes. That is why the *medium* comes second, as the constant distinction between variable products and variable media remains the code that translates outside irritations into inside events (Ruesch/Bateson 1951, chap. 7).

The indication of *products* is far from self-evident. It is both the mission of an organisation and possibly the reason why there is any demand for its performance, anyway (e.g., Drucker 1990). It is both the purpose that structures the whole organisation and the nexus of complexities no management, or any other observer, is able to describe (Heintel 1985). It is indeed that area of complexity, on which all observers should focus in order to forestall overtaxing by the business they are in (Morin 1974), and to develop the appropriate means of "operational research" recommended by cybernetics: (1) Look at what happens, not at why it happens; (2) Do not collect more information than necessary for the job at hand; and (3) do not assume that the system does not change, that is, take into account that you can only solve the problems of today (Ashby 1958, pp. 97/8).

The most important means of operational research is indeed the code, which distinguishes the product and its medium from the *market*, the market here being considered to be a highly structured, both risky and uncertain structure emerging from second-order observations across a range of organisations (Simmel 1908, chap. IV; Knight 1921; White 1981). The market is a social structure, which is adopted and constructed in order to be able to self-reproduce, or else there would be no possibility of envisioning the time needed to bridge the gap between production and sales and to manage producers' fears of becoming overcommitted and of relying on the wrong signals (Baecker 1988; White 2002). Yet the market is only one possible example of the way a public is created, which is why this public is the more general variable. The market, considered as a kind of audience, or public, turns general management into one side of an asymmetrical role structure, which represents possibilities for switching into, and out of, relations with producers (Goffman 1959; White 1995; Ikegami 2000). The market is a

public that focuses on services for money. It can, therefore, be defined by a medium of communication, i.e. money, that translates easily into accounting and defines thereby the language management is relying on when considering which organizational projects are to be started, or continued, and which ones would be better stopped due to lack of prospects for payments. Of course, the easy translation of market payments into accounting (cost and benefits) does not mean that management cannot enter into procedures of ambivalent sense-making based on distinctions between past, present, and future (Eccles/White 1986; Baecker 1999, pp. 237-264; Baecker 2003, pp. 256-292).

The market is framed, contextualized by, the contextualizing *networks* it is embedded within. Networks combine heterogeneous identities like organisations, technologies, beliefs, images, stories, and histories as the stuff of which a product, its medium, and its markets, in as far as they remain distinct, are made. An important distinction structuring the network is that proposed by Harrison C. White of upstream from downstream (White 2002). Neither producers nor consumers are able to focus their attention on both directions at the same time. They tend to take one for granted and to concentrate on dealing with the other, so that possible deals depend on one direction of attention being the chosen focus. There are two possible versions of this distinction. The first is structural and claims that it frames firms historically and individually but that they cannot look at it and reintegrate it into their own realm of strategy. The second is observational and represents within the firm the knowledge of its selective ignorance. Both versions are important and both versions apply to the communicational dynamics within the firm, where these consist of second-order observations of managers competing with managers.

Products within media, which are themselves within markets-within-networks, are the subject and the object of possible *evolution*. Its three mechanisms of variation, selection, and retention spread over the whole field of general management, starting with its routines, ascertaining its operational procedures, looking at its markets, and relying on its very calculus of communication to re-embed an organisation within the awareness of society and its members (Campbell 1969; Nelson/Winter 1982; March/Simon 1993; Luhmann 2000). To both the chagrin and the delight of any management, nobody can ever be sure where variations come from, which kinds of selection they signal, and what they may indicate as the appropriate scale and scope to retain. Instead, all one can do is to provide for mechanisms of selection, which, at their most basic, consist in encouraging and dealing positively with the communication of rejection, deviation, and critique, as these are the source of any possible innovation (Schumpeter 1942, chap. 7).

There is nothing framing any possible evolution of the enterprise but society itself. That is the formalism introduced above, which consists in reckoning how further communication may be possible. As long as expectations seem anchored in possible worlds of production (Keynes 1936; Storper/Salais 1997), evolution gets its chance. Note, however, that evolution framed by society is bound to orientate itself towards path-dependence and possible lock-in (Anderson/Arrow/Pines 1988), and relies for that on all aspects of time and space, region and culture, technique and religion, politics and education, science and art, that may be of value in shaping evolution, structuring networks, constituting markets, envisioning a medium, and defining products, all of which seek their identity within the form of general management.

Yet, the one variable which is most valuable in signalling the viability of all other variables is the *people* variable. In Sociology this variable is somehow both classical and very new. Presumably, Sociology actually began by looking at individuals as the main determinant of society, asking how individuals are possessed by their desire to possess (Tarde 1893), asking what chance there is to develop a morale akin to society's abstract mechanisms of solidarity (Durkheim 1893), asking how individuals are shaped by society, and society by individuals (Simmel 1908), and asking what it is that ethics can prize, i.e., select and sanction, in individual behaviour according to social circumstances (Weber 1921; Weber 1920/21). Sociology has always talked about social order, social movement and social conflict because individuals have to be bound by society, and any binding is only possible if society makes itself subject to individuals' expectations.

However, cognitive science's discovery of the operational closure of both consciousness and communication enforced this perspective (Varela 1990; Luhmann 1995). Communication now is considered to have to fascinate, i.e., bind and commit, the consciousness of individuals in order to be able to recruit individuals for any form of it, both the demanding and the boring. A look at the notion of communication, beginning not only with John Locke's *Essay on Human Understanding* (1690) but with the suspicion already directed towards the arts of rhetoric and sophistry in ancient Greece (Platon, *Sophistes*), tells a lot about observations displaying that cognitive scientific perspective (Baecker 2005b). Niklas Luhmann started to reconstruct his theory of social systems around that insight, focusing on individuals' consciousness as an impulse forcing any communication to reconsider anew the distinction between knowledge and ignorance (Luhmann 1997a, chap. 1). And Karl Weick and Kathleen M. Sutcliffe propose a new kind of management, which consists in focusing on individual "mindfulness" in order to assure dependability in dealing with complexity by asking what kind of individual and individual consciousness is at all able and willing to perform the most ordinary or the most specialised jobs (Weick/Sutcliffe 2001).

Our model of general management thus centres on one vital question: how do those issues, which people (customers, investors, stakeholders, employers, employees, managers, professionals...) are able to accept, re-enter the way general management operates, so that products, media, markets, networks, and evolution come to the meaning designed, and enacted, to describe the general management as the *eigen*-value of a recursive function. In the last analysis, all variables are indicated by a set of six constant distinctions: (1) product/medium, (2) medium/market, (3) market/network, (4) network/evolution, (5) evolution/people, and (6) people/unmarked outside. The deeper the level of distinctions within the arrangement of them, the tighter or the more determined the variables turn out to be, which means that managers have to work with the outsides of the distinctions when trying to change their insides. Organisation theory already focuses on mechanisms of sense-making (Weick 1995; Weick 2000; Brunsson 1989; Cziarnawska-Joerges 1997). And organisational development considers, after having taught and trained organisations to realize that they are indeed communicating, the only question left is what they communicate about (Schein 1997).

Our model is a simple device to look at the complexity of issues organisations have been able to handle in order to maintain themselves, always bearing in mind that all distinctions are distinctions being drawn by observers, who may be persons, institutions, disciplines, networks, or systems able to reproduce. And all variables are variables to be determined by these observers drawing their distinctions. The ensuing arrangement is an envelope for all kinds of indications of an enterprise's operational issues, which may need deciding at any moment, given the distinctions to be drawn. It describes a sociological formalism, which introduces Sociology itself as an observer cooperating in the framing and reframing of the business, the culture, and the evolutionary model of general management.

### III.

Our model describes the surface or envelope of the dominant form of general management from the known history of enterprise (Sombart 1916/27; Braudel 1979; Wallerstein 1974/80/88). Yet we are not only looking for the formalism of general management comprehending that envelope but also for the mechanism that is able to generate that very form, which the formalism is describing. We indicated that mechanism by giving the re-entry of the form into the form the designations of time and subversion. We take this mechanism to be the operations of general management, and we insist neither on a distinction of general management from entrepreneurship, or leadership, nor do we insist on reserving these

operations to business firms only. They figure in private and public administration as well as in profit and non-profit organisations.

This does not mean that we do not want to distinguish between entrepreneurs, leaders, and managers. Rather, it means, that we do not want to draw such distinctions at this basic level of the model. We would have to introduce reference to organisation and hierarchy in order to be able to distinguish managers from leaders by supposing, for instance, that leaders engage across hierarchical levels, and managers inspire employees at their level (Mintzberg 2004). Alternatively, we would have to introduce references to the social institutionalization of enterprise versus the use of institutions for the purpose of innovation if we wish to distinguish leaders from entrepreneurs (Selznick 1957; Schumpeter 1912). Here we speak of general management to indicate any means of action via the suppression of particular categories of products, media, markets, and networks, as White proposed in focussing the idea of general management on its capacity to use generalizations for the suppression of particularities and the mixing of contexts (White 1992, p. 255).

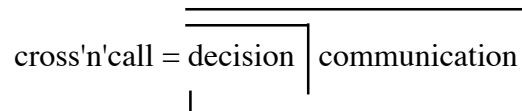
We are interested in a mechanism or formalism, which allows agents to pursue their purposes without having to generate the big picture. Notions of "free market society", "capitalism", "industrial society", "post-industrial society", or whatever, certainly inform action and communication, and they even help when having to figure out how situations might be explored and exploited. We intend allowing for zero-intelligence (Gode/Sunder 1993) as well as for non-intentional action (Beckert 2003). We are looking for skills in social relationships, which consist in ambiguous framings of situations such that contexts as well as texts can be changed to account for what is going on (Leifer 1991; Sacks 1992).

We propose a mechanism, which is generative in the sense that it works by agents communicating, without them necessarily, or even usually, being aware of how they are doing it. Agents look at products, markets, networks, evolution, society, and people. They are aware of the importance of these variables. They are not aware of their form, which frames the variables by means of constant distinctions used by agents while it also indicates the variables. Thus, they are not aware of their frames of experience while interpreting the situations they are in and looking at the keys that indicate a change of frames without necessarily naming that frame (Goffman 1974). That is why our formalism is a social scientists' formalism, which describes the form agents are using without having to be able to name it, let alone to put it into perspective. Sociology is able to understand agents in a manner not available to them to understand themselves. Yet, there is a further step we are here proposing, which consists in assuming that there is a mechanism fine-tuning the action, which does not rely on agents' awareness as well. We call it the cross-and-call operation of

management, and we maintain once again that it consists of variables indicated by agents doubling as observers, and of constants unknown to them. That operation generates the identity of any organisation embedded within its markets. It is a "post-industrial" identity in that it is an identity in time and subversion, and not an identity in substance and subject.

Picking up the cross-and-call re-entry operation of our model of general management, we ask what options there are available for agents to operate inside the form of enterprise, thereby indicating the values of its variables and at the same time presupposing the constants of the distinctions they draw habitually, although in ignorance of them. What agents actually can do while reproducing, and being reproduced by, the form of enterprise, is rather simple. They can make decisions; and they can watch the communication emerging from, and framing, their decisions (Cohen/March/Olsen 1972; Warglien/Masuch 1996; Heimer/Stinchcombe 1999).

Our mechanism, a very simple and therefore robust one, runs:



To be able to decide, and to observe communication, is all agents need to deal with the formalism of enterprise. Decisions subvert the form of the organisation, and communication reproduces it in time. Here organisation theory enters to describe the autopoiesis of decisions (March/Simon 1993; Luhmann 2000), and the theory of society come into play to describe the autopoiesis of communication (Luhmann 1997; Baecker 2005a). If the general management is one of a firm, there also enters the theory of social economy, which describes a specific type of communication as payments embedded in a calculus of scarcity (Parsons/Smelser 1956; Luhmann 1988; Baecker 2006b).

The mechanism we are looking at consists in one operation made up of two indices marking variables framed by two constant distinctions, the first one distinguishing decisions from communication, the second one distinguishing communication from anything else. In modern society both distinctions are typically considered to embody claims to rationality, or even reason, as decisions have to be the "right" ones, and communication has to be "sensible", "responsible", and "sustainable" with respect to ecological environments (social, mental, and natural). Both decision-theory and communication-theory espouse a more modest, or humble, stance (Etzioni 1989; Latour 1999).

What actually are we looking at? Relying on Spencer Brown's terminology, we understand decisions to subvert the form by "a partial destruction of the distinctive properties of constants" (Spencer Brown 1969, p. 62). That is done via a transmission of the values of variables from outside to inside, i.e., from right-hand terms to left-hand terms of the form. Decisions subvert the form by looking at media, markets, networks, evolution, and people when deciding to offer which kind of product for what price in what quantity, such that the product loses its distinctive identity and only regains it by being reframed in accordance with nominated contexts. Decisions consist in contextualizing, and re-contextualizing, variables, thereby making choices between the values they accord to these variables.

Subversion thus consists in crossings and re-crossings of distinctions, thereby cancelling the very values they started with. To understand how this comes about is the reason we propose to base our model on Spencer Brown's calculus. The idea is that there is a certain risk in calling up distinctions with respect to their form, that is, with respect to its the two sides and their separation as performed by the operation of distinction. Distinctions appear contingent on observers drawing them, first with respect to their being drawn at all, and second with respect to the values they indicate and emphasize to be different. An observer (e.g., a manager) inviting another one (e.g., another manager) to look at the distinctions he or she draws in order to take, to justify, and to communicate, a decision is actually inviting the other to venture doubts both about the validity of the distinction and about the values of the variables suggested. Of course, that is exactly the daily stuff of management quarrels, or strategy processes, inside firms and within markets (Eccles/White 1986).

Decisions, then, are themselves communications obliged to answer the doubts they arouse. That is why we are used to considering decisions as choices framed by a probability calculus of possible outcomes and the conscious consideration of alternatives (Arrow 1974). And that is why the system of "organisation" has been designed by society to "regulate" (the second closure of the double closure mentioned above) how decisions exploit, and constrain, the contingency consciously produced by the taking of decisions. Organisations, to cut short the long story told by organisation research and theory, is a formalism - yet another one - to encourage decisions destined to be haunted by post-decision surprises and regrets (Harrison/March 1984). They do so by first blocking all possible action, and then by setting out to achieve just that (White 1992, chap. 6) - a kind of double operation duly called "general management".

That kind of subversion, which constantly tests the variables of the form indicated by the distinctions used by the formalism of general management, is that kind of "deconstruction", which Jacques Derrida rightly assumed to be "the case" (Derrida 1990, p. 85). It is balanced

by the need to communicate any decision. To the dismay of all kinds of "management science", German *Betriebswirtschaftslehre* prominent among them, it is not enough to just take the decisions, or, more modestly, to comply with them, as if empirical, factual logic generated them. As Niklas Luhmann delights in showing (Luhmann 1964; Luhmann 2000), they have to be communicated, and that means for the operation of cross-and-call management, that distinctions being subverted must have all their properties reset, or reframed, in order to accord with the constant distinctions still operative in making up the identity of the form.

That is why any management theory worth the name - i.e., a theory not reducing management to the technical business of linking effects to causes and using cases to illustrate the variation of contexts - instead looks at communication (Mintzberg 1973; Mintzberg 2004). Communication undertaken by and inside any organisation or network, constantly and relentlessly on an hourly, daily, and monthly basis, by all members of the organisation via all forms of consent and dissent, by the products marketed, the techniques and procedures used, the culture implied, the capital employed, by the clients committed and diverted, the management making up their mind, and the leadership looking at the institutional frame, is working with the time the enterprise needs and uses to re-arrange the form according to the arrangement of distinctions it relies upon. Communication summons attention, while decisions correlate distinctions. Both taken together, i.e., considered as variables of a common form, constitute management and can be described to give an idea of what general management is about.

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