

## EVOLUTIONARY THEORY AND EVOLUTIONARY MANAGEMENT

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### ABSTRACT

*The Darwinian idea of evolution by natural selection has an algorithmic character, and is therefore susceptible to application in various fields, such as social and economic life, as well as the science of organizations. Although still controversial, the introduction of the evolutionary principles into the study of management principles must be seen as an alternative analytical framework to the neoclassical principles of economic analysis that gained primary importance in the twentieth century. We will try to show how, using the principles of evolutionary theory, one can formulate some general principles of management, of organisational policy-making, and also some practical rules of managing organisations. Also, we will briefly present the results of a qualitative research destined to find out whether Romanian managers have any knowledge about the rules of evolutionary management or, if informed about these rules, they find them appropriate and manifest their willingness to test them in practice.*

**KEYWORDS:** *Darwinism, evolutionary theory, evolutionary economics, evolutionary management*

**JEL CLASSIFICATION:** *B 52*

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### 1. INTRODUCTION

In 1859, Charles Darwin published *On the Origin of Species by Means of Natural Selection*, a book written in fifteen months, but being the result of a fifteen years long meditation and research, in which he exposed his theory on the evolution of species of living beings by means of natural selection, a work that he considers in his *Autobiography* to be nothing more than “a single, very long argument”. The theory of evolution by natural selection, as formulated by Darwin, rests on three basic premises or principles: (1) the variation principle, (2) the heritability principle and (3) the adaptation principle. (1) The **variation principle** is founded upon the observation that there are no two identical individuals within a species, because they differ in their physical and behavioural characteristics, and Darwin called these noticeable differences between individuals with the term ‘variations’. (2) The **inheritance principle** is based on the empirical discovery that variations that distinguish the organisms in a species are usually transmitted from parent to offspring. Therefore, the offspring are distinct from each other by virtue of the features inherited from their parents, so they will look more like their progenitors more than like any other randomly selected member of the species. (3) The **adaptation principle** is built on the observation that organisms are well ‘adapted’ to living in their specific environments, meaning that they possess the physical and behavioural features which enable them to successfully face and exploit the characteristics of the environment in which they live (Cf. Hampton, 2010, pp. 2-3)

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The conclusion of this "long argument" is briefly stated in the summary of the fourth chapter of the book, as follows: "If during the long course of ages and under varying conditions of life, organic beings vary at all in the several parts of their organization, and I think this cannot be disputed; if there be, owing to the high geometric powers of increase of each species, at some age, season, or year, a severe struggle for life, and this certainly cannot be disputed; then, considering the infinite complexity of the relations of all organic beings to each other and to their conditions of existence, causing an infinite diversity in structure, constitution, and habits, to be advantageous to them, I think it would be a most extraordinary fact if no variation ever had occurred useful to each being's own welfare, in the same way as so many variations have occurred useful to man. But if variations useful to any organic being do occur, assuredly individuals thus characterized will have the best chance of being preserved in the struggle for life; and from the strong principle of inheritance they will tend to produce offspring similarly characterized. This principle of preservation, I have called, for the sake of brevity, Natural Selection." (Darwin, 1859, pp. 126-127)

Therefore, as it was emphasized by American philosopher Daniel Dennett, not the idea of evolution, which was not a new one, but the idea of evolution by natural selection, i.e. the identification of a natural, immanent mechanism, able to explain why species do evolve, is the one that gives the great novelty and importance to Darwinism (Dennett, 1996, p. 42).

According to Dennett, the main idea that needs to be kept in mind here is that of the algorithmic nature of evolution by natural selection, which appears with great clarity in the words of Darwin himself, when he presents the summary of Chapter IV of his work, cited above, where it becomes obvious that if initial conditions concerning life on Earth are met, then the production of a specific type of result, namely speciation is guaranteed. Any algorithm, points out Dennett, whether we are talking about an evolutionary mechanism or a computer program, has three fundamental features: (1) Its substrate is neutral with respect to its application i.e. the force of the procedure is the same regardless of the material circumstances to which an algorithm is applied, because it is derived from its logical structure: the algorithm for dividing a number by another number is the same whether the operation is done with pencil on paper, mentally, or on the computer screen. (2) It does not require rational control of the execution of each step or of transitions from one step to the other, meaning that although the design of an algorithm may require a considerable effort of thought, sometimes a stroke of genius, once it is formulated, its application is so simple that can be left to someone completely incompetent, or even a machine. For example, a recipe, if it's written clearly enough and without the use of specific terminology, can be followed even by someone who does not have any cooking skills. (3) The algorithm provides the guarantee of obtaining the desired result. Whatever the purpose for which the algorithm was built, it will always achieve it, given that each step is performed scrupulously (Dennett, 1996, pp. 50-51).

Given the algorithmic character of the processes of evolution by natural selection and its independence of the substrate on which is applied, it follows that it is bound to work in any environment, not only in the biologic one, such as the social and economic life or even organizations' management.

## 2. EVOLUTIONARY THINKING IN ECONOMICS

Although still controversial, the introduction of the evolutionary principles into the study of economy was trying to offer an alternative analytical framework to the neoclassical principles of economic analysis that gained primary importance in the twentieth century. As such, economists in all schools of thought have attempted to think of the economic system as the product of an evolutionary process (Dopfer & Potts, 2008, p. 1).

The debate on evolutionary economics is neither very new, nor very old. While the evolutionary approaches to economics gained popularity over the past three decades, the very concept of "evolutionary economics" was introduced at the end of the nineteenth century by Thorstein Veblen in his famous article *Why is economics not an evolutionary science?* (Veblen, 1898).

Since then, no ultimate consensus was reached among researchers and experts on what the evolutionary economics would be. Nevertheless, the most substantial differences in scientific approaches usually occur at three levels of scientific reasoning, namely: "the ontological level" (what basic assumptions are made about the structure of reality), "the heuristic level" (how the problems are framed in order to produce hypotheses), and "the methodological level" (what methods are used to express and verify theories) (Witt, 2008). Understanding the evolutionary economics means to distinguish between these three levels of reasoning and the corresponding assumptions.

At the *ontological level*, according to the "ontological continuity hypothesis", the mechanisms of species' evolution under natural selection pressure have shaped the ground for the man-made, cultural forms of evolution, including the evolution of the human economic behaviour; however, the mechanisms of man-made evolution differ substantially from those of natural selection. Secondly, at the *methodological level*, the controversy relates to the question of whether and how to explain the role of history in economic theorizing, given the assumption that "the evolution of the economy at any particular point in time results in conditions and events that are historically unique" (Witt, 2008, p. 553).

Finally, at the *heuristic level*, scholars argue that what distinguishes "evolutionary" from "canonical" economics is the use of particular analytical tools and models borrowed from evolutionary biology. From this point of view, some authors have tried to extend the Darwinian theory universally beyond the domain of evolutionary biology (Cf. Dawkins, 1983), using the three principles of evolutionary theory (inheritance or retention, variation, and adaptation) as a heuristic for evolutionary economic theorizing (Campbell, 1965). These three principles have been derived by abstract reduction of the key elements of the Darwinian theory of natural selection, and have been applied to the evolution of technology, science, language, human society, the economy, etc. (Witt, 2008, p. 551)

The proponents of the use of "Universal Darwinism" in the theory of organizations believe that the core Darwinian mechanisms of inheritance (or replication), variation, and adaptation, apply to social entities and processes, given the fact that businesses, states, and other organizations also compete for scarce resources, such as organisms do. In this equation, organizations adapt and change; some fail, others prosper; they learn and pass on information. In this view, Darwinism is "a metatheory that applies to a very broad range of empirical phenomena", it is a broad theoretical framework, rather than a complete theory encompassing all the details.

In short, the **variation** of complex systems (involving populations of entities of specific types) refers to how variety is "generated and replenished in a population". While in biological systems this involves "genetic recombination and mutations", the evolution of social institutions entails "innovation, imitation, planning, and other mechanisms" (Hodgson & Knudsen, 2010, pp. 34-35).

In the same manner, **inheritance** for complex systems refers to the capacity of retaining through time and passing to other entities the adaptive, workable solutions (meaning, among others, tools and technological know-how) identified in facing the problems of scarce resources and struggle for survival. Examples of such complex population systems include every biological species, but also "human organizations such as business firms, as long as these organizations are cohesive entities with a capacity to retain and replicate problem solutions". Retaining such problem solutions means "avoiding the risks and labor of learning them anew", which also involves the capacity "to pass on to others information about such workable solutions". And this is the basis of the Darwinian principle of inheritance, a term which refers to "a broad class of replication mechanisms, including diffusion and descent, by which information concerning adaptations is passed on or copied through time. In biology, these mechanisms "involve genes and DNA", while in social evolution, they "include the replication of habits, customs, rules, and routines, all of which may carry solutions to adaptive problems." (Hodgson & Knudsen, 2010, pp. 33-35)

Also in short, **adaptation** represents the capacity of certain entities to survive longer than others, to "gradually adapt in response to the criteria defined by an environmental factor." For example, as a

selection process typically produce a “dominant design”, entities or “firms whose products exemplify the dominant design are thriving, while firms that are producing something else are ailing”. This does not mean that any creation of new variations (seen as novelty) is “forbidden”, as long as the new variation survives the “test in the real world” (in case of a firm, this meaning to be able to meet customer preferences while creating new designs). (Hodgson & Knudsen, 2010, pp. 35-37)

### 3. EVOLUTIONARY THINKING IN MANAGEMENT

As Johann Peter Murmann points out, “as part of the open-systems revolution in organization theory, evolutionary models blossomed in the 1970s. Within a short period of time, scholars formulated evolutionary accounts to explain phenomena ranging from the micro to the macro levels of organization” (Murmann, 2003, p. 2). For example, Richard R. Nelson and Sidney G. Winter, in their book *An Evolutionary Theory of Economic Change* (Nelson & Winter, 1982), used the Darwinian concepts as a central element of their conceptualization of the transformation process in firms and industries, considering the organizational routine as a unit of selection in economic contexts (Nelson & Winter, 1982, pp. 234 ff.). According to this view, firm organizations, in their internal interactions, are compelled to use rules and develop organizational routines (such as production, calculation, price setting, the allocation of R&D funds, etc.). These organizational routines are considered to function as the unit of selection, analogous to the genotypes in biology, while the specific decisions resulting from the routines applied – which will affect the firms’ performance – are taken as the analogue to biological phenotypes. As a result, different routines and different decisions lead to differences in the firms’ growth: the routines that contribute to growth are not changed, while routines that result in a deteriorating performance are unlikely to multiply.

In the same manner, Donald T. Campbell, in his paper *Variation and Selective Retention in Socio-cultural Evolution*, argued that the core Darwinian principles of “variation and selective retention” apply to social as well as biotic evolution, although the appropriate model for social evolution is not biotic evolution but a more general process of evolution “for which organic evolution is but one instance” (Campbell, 1965, p. 24). Influenced by Campbell’s work, Karl Weick formulated in his book, *The social psychology of organizing* (1979), a psycho-sociological theory that used the principles of variation, selection, and retention from evolutionary models in order to explain the way individuals in an organization attempt to best coordinate their efforts. In turn, in his book *Organizations and environments* (1979), Howard Aldrich attempted to do that same thing at the macro level, of entire organizations, using evolutionary principles of variation, selection, and retention/selection to explain the way organizations do change over time. “In Aldrich’s evolutionary model, organizations flourish or fail because they are more or less fit for the particular selection environment in which they operate. Rather than explaining organization success and failure by appealing to managerial intentions, Aldrich’s evolutionary account focused on whether organizations have the appropriate traits for a particular selection environment, irrespective of whether managers intended these traits” (Murmann, 2003, p. 2). For Aldrich, the main explicative instrument remains the evolutionary selection logic. For instance, he uses the evolutionary counterpart of multilevel analysis of organisations, namely the idea of multi-level selection, to explain the apparent strange fact that that some agents (people, groups, teams, organizations) do engage in behaviors or activities that can decrease their individual fitness or utility. The explanation is the fact that these behaviours have the effect of increasing the fitness or utility of the larger unit composed of these agents: “So, for example, people in organizations, or organizations in populations, can actually engage in behavior that lowers their fitness, that is, decreases their longevity, their profitability, or their effectiveness as units. But in the same moment, in the same process, their action raises the level of fitness of the larger entity. Thus, evolutionary analysts must try to figure out the relative contribution of the opposing forces in determining long-run outcomes” (Aldrich, 2003, p. 4).

In their 2006 paper, *Why managers need an evolutionary theory of organizations*, Peter J. Richerson, Dwight Collins and Russell M. Genet argue that “evolutionary theory is the proper foundation for the human sciences, particularly a theory that includes an account of cultural evolution. This theory shows how the limited but real altruistic tendencies of humans arose by tribal-scale group selection on cultural norms followed by coevolutionary responses on the part of our genes. Our tribal social instincts in turn act as a moral hidden hand that makes human organizations possible” (Richerson, Collins & Genet, 2006, p. 201)

Richerson, Collins and Genet show that the latest research in experimental economics prove that the neo-classical principle of radical rationality of human agents (all individuals are selfish rational calculators) is wrong, and this fact has important consequences for organizational theory and management. In fact, humans, being a product of their species’ evolutionary history, are inclined to have an altruistic and fair behaviour, so it is not only the unseen hand of classical economics that rules over all agents’ behaviour, but also a moral hidden hand. For example, it is agreed that the behaviour of organizations, and of people in organizations is driven not only by selfish motives, but also by reciprocal trust: companies that formally enforce internal policies based on trust are more profitable and successful than others, governed by policies based on utilitarian ideas and egoistic competition. Despite this fact, a great part of today's management science is still based on the assumption of the classical hidden hand derived from economics, a principle that works reasonably well at the microeconomic level, by aligning businesses’ behaviour with social virtue. But this principle was proved spectacularly wrong at another level, namely within organizations and firms, so that managers have to enforce a top-down management to control employees’ behaviour by planning strategies and designing explicit policies that align each individual’s actions with the goals of the organization, and also monitor behaviour and create incentives to make the organization work or to ensure the business will prosper (Richerson, Collins & Genet, 2006, pp. 201-205). Therefore, they believe that “the selfish rationality view is downright dangerous because it recommends strategies that are dysfunctional. Economists tend to overestimate the extent to which the market’s hidden hand functions in the macroeconomy of the marketplace and underestimate the role of what we will call the moral hidden hand in the microeconomy of the firm” (Richerson, Collins & Genet, 2006, pp. 204)

As a consequence of this view, they argue that in order to be successful, an organization or a business must make use of the most important idea that evolutionary theory has to offer, namely the discovery that human nature is fundamentally tribal, and therefore managing policies must be conceived in order to make use of the moral hidden hand, but keeping in mind the fact that businesses face a more difficult job than tribes, because they must take into account a larger variety of stakeholders (customers, suppliers, neighbours, owners). Accordingly, “successful management is thus substantially the art of using work-arounds to tap the moral hidden hand while at the same time minimizing their inherent vices” (Richerson, Collins & Genet, 2006, pp. 207).

In order to help managers and management scientists to develop more efficient leadership principles for obtaining best results and a better use of financial, human and natural capital, Richerson, Collins and Genet have formulated a few general principles of management policy-making (Richerson, Collins & Genet, 2006, p. 209):

1. The understanding of organization’s culture is essential. Leaders can control and influence only a small percent of the organisational culture, which is often informal and informally transmitted, so instead of trying to forcefully change it, they should understand and use it.
2. A business should be managed as a tribe, using tribal identities and for the benefit of its members, as long as is possible and consistent with its larger missions and responsibilities.
3. An organization should be managed by making use of prestige rather than power, because usually is less costly and more effective, being well-known that the use of power generates costly resistance.
4. Cultural diversity in the organization must be respected, because it will tend to bring a useful diversity of experiences and skills.

5. Monitoring and punishment are necessary in any organization, but must be balanced and not excessive, in order to avoid the lowering of morale and professionalism level of the majority of its members.

#### 4. HINES' RULES TESTED

A more particular and precise set of principles for choosing better organisational and managerial policies was formulated by Jim Hines, in his paper *Five Rules for Evolutionary Management* (Hines, 2003). Because Hines' ideas are more precise than the previously explained ideas, they were tested in order to see if Romanian managers had any knowledge about Evolutionary Management.

Because the idea of Evolutionary Management is a very new one among managers, we wanted to see whether managers have any knowledge about the rules of Evolutionary Management (as stated by Hines) or, if informed about these rules, they would find them appropriate and would manifest their willingness to test them.

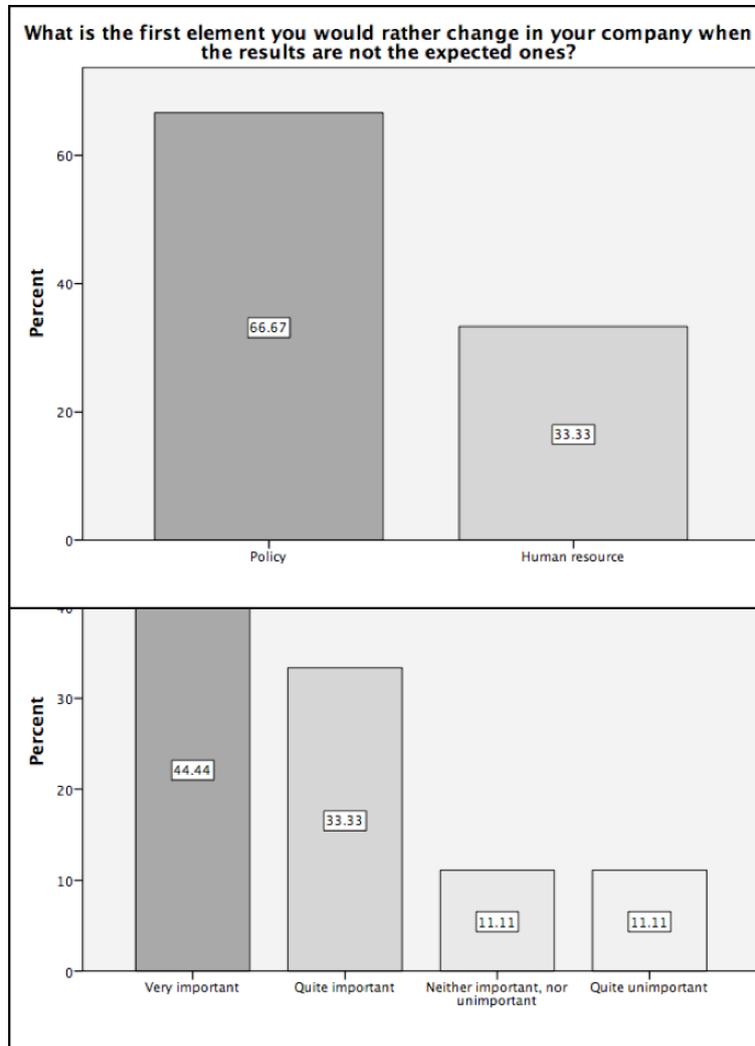
For this objective, a qualitative research seemed a better choice than a quantitative one. Although a qualitative research is less representative and less precise and specific than a quantitative one, it was preferred exactly for the novelty of the subject. The main objective of this qualitative research was that of determining which are the variables that deserve to be analyzed and measured in a future quantitative research. As a method for gathering and analyzing data, a face-to-face discussion with managers was preferred over a more standardized method (such as an interview or questionnaire).

Although the results of the present research are not final and they will constitute the basis for a future more comprehensive, quantitative research, some of the data gathered from face-to-face discussions are presented in a quantitative form (graphics) precisely for indicating the fact that managers seem to have a poor knowledge of Evolutionary Management. The results of the research are interfused with Hines' ideas.

Hines believes that unfortunately, no matter how insightful a classical theoretical approach, it is rather insufficient to render human organizations more efficient. The high complexity of organizations renders them difficult to understand. However, "the good news is that this problem has already been solved, albeit not by humans. Nature's great organizations – tigers, penguins, and butterflies – approach a degree of inter-dependent coherence that managers can perhaps dream of and which biologists have yet to understand (...) The mechanism that drives nature's improvement is evolution. And, systems thinkers can harness the same principles" (Hines, 2003, p. 1). To grasp the concept of evolution – be it related to organizations or biology – one needs to take into account three things, as Hines puts it: "The «genetic material of evolution»", "how novel genetic material can arise" and "how genetic material can be manipulated so that «children» can surpass «parents»" (Hines, 2003, p. 1).

In the simple way, we can say that genes are the subject of biological evolution. At the same time, Hines argues that an idea is the correspondent of a gene at an organizational level. Richard Dawkins, one of the most important representatives of evolutionary biology, forged the term "meme" in order to designate the idea that undergoes development and is transmitted, by means of communication, among humans. These ideas also received the name "policies" from Jay Forrester. According to Forrester's definition, a policy is merely a regulation – either "implicit" or "explicit" – which generates "decisions". As Hines states it, "policies guide pricing, marketing, budgeting, accounting, production, research, development, construction, acquisition and every other category of activity undertaken by an organization." (Hines, 2003, p. 2) Just as genes, policies are an agent that yields an ongoing series of events. Besides, policies represent the very support of evolution, just as genes do. Changes in policies bring about changes within the organization. In order to grasp the concept of evolutionary management, one must, at first, admit that policies, and not people, are the bearers of evolution. This allows Hines to state his first rule for evolutionary management: **1. Be though on policies, not people.**

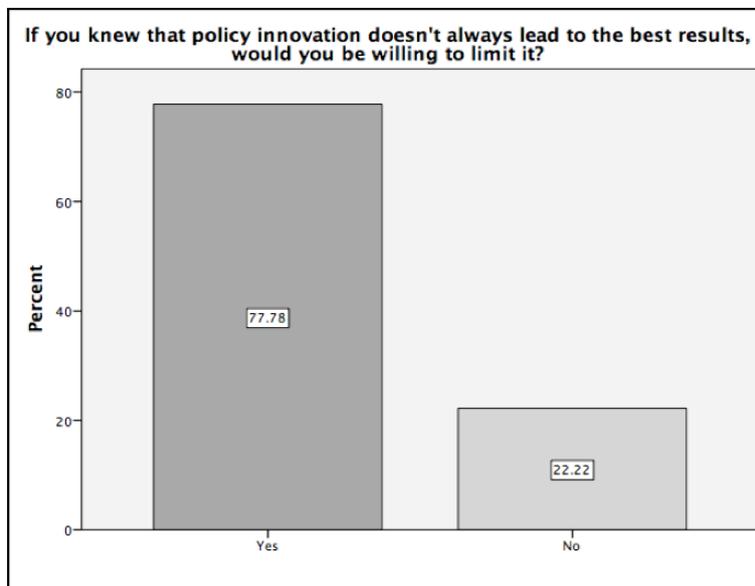
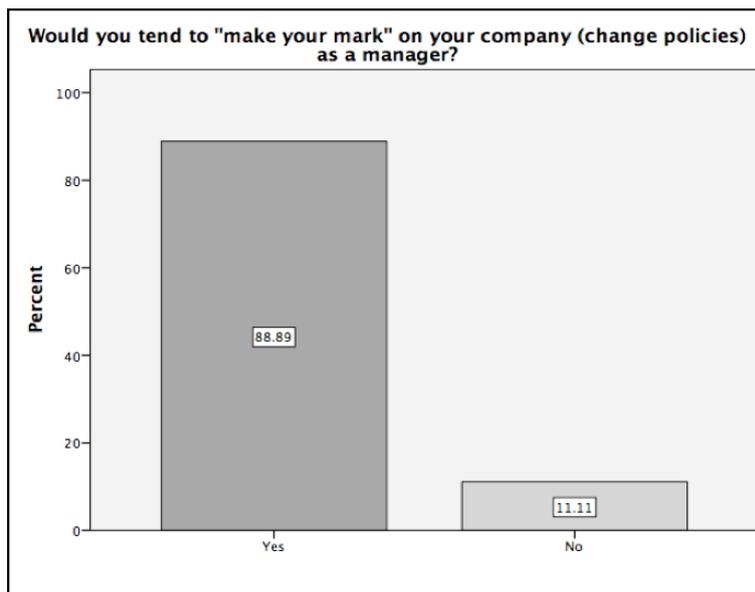
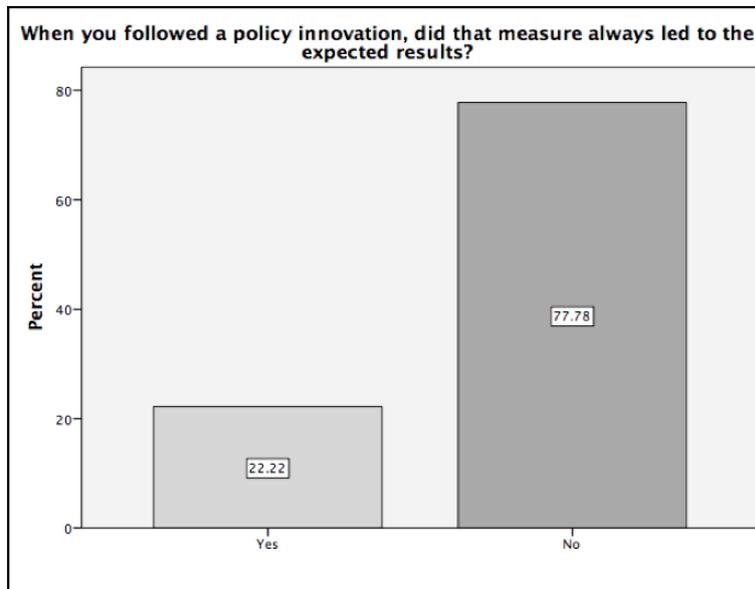
*According to the results of our research, however, managers tend to rather look for improvements in changing policies, "policy innovation" being considered as one of the most important elements one manager should look for in an organisation. In other words, managers tend to adopt a "managing through policies" instead of "managing to people" perspective.*



Next, Hines shows that it is genetic mutation that orients evolution and the large majority of mutations is not beneficent and, ultimately, leads to extinction. The main issue, when it comes to biological mutation, is the fact that a weaker gene can appear much more often than a gene with minor improved effects on the phenotype. A gene undergoing a mutation, argues Hines, is just like a policy undergoing innovation. Thus, the need of organisms to keep their mutations under check finds itself the same legitimacy as the need of organizations to keep track of innovations. In probabilistic terms, the chances of a policy innovation to damage a business are much higher than the chances of improving it. Hines' concern is directed towards what seems to be an over-evaluation of policy innovations nowadays. Everybody seems to be committed to novelty and, as Hines puts it, "managers want to make their marks" (Hines, 2003, p. 3). The paradox is that, in order to stimulate the development of organizations, one has to limit policy innovation. Thus, the second rule of evolutionary management is: **2. One must keep control on policy innovations.**

*In spite of Hines' rule, managers tend to "make their mark" on the company by changing policies, even if previous attempts to improve policies (policy innovation) did not always lead to real improvements or to the expected results. Nevertheless, managers are not inherently reluctant*

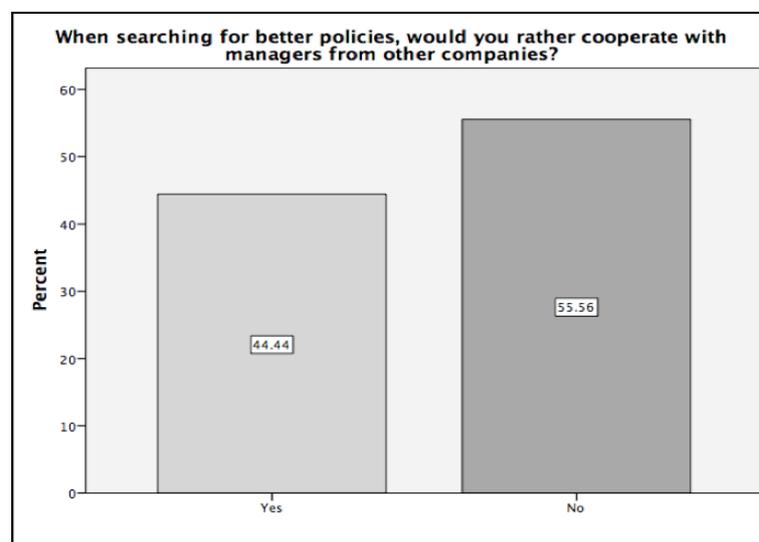
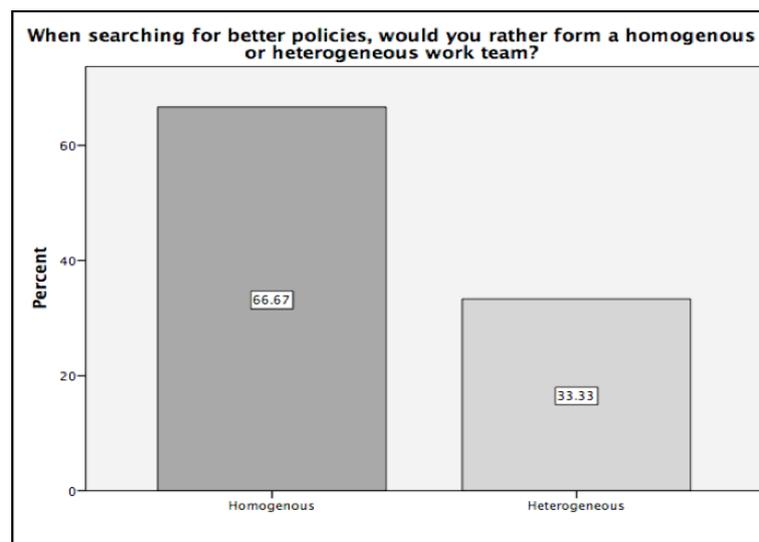
*to limit policy innovation if they knew that such a measure would bring better results on the performance of the company, indicating that managers need to be better informed about the ideas of Evolutionary Management.*



Another interesting idea borrowed by Hines from evolutionary biology is the idea of DNA recombination. Each sexually reproducing organism has a set of chromosomes inherited from his parents (50% of the DNA from each cell comes from the mother and 50% from the father). In a process called “recombination”, two DNA molecules can exchange genetic information, resulting in the production of a new combination of alleles and can lead to a novel set of genetic information that can be passed on to offspring. By means of this “recombination” evolution might as well be accelerated, meaning that suitable features of parents can be put together in order to result into children that are evolutionary superior to parents.

The same principle works when we talk about what Hines calls the “recombination of policies”, which may be conceived as an equivalent to the recombination of chromosomes. In common language, the most used term in order to designate “policy recombination” is “learning”. Accordingly, “evolutionary principles suggests that putting people with good policies together so that they can learn from one another will foster the more rapid evolution of even better policies. Managing through teams, for example, is good from an evolutionary perspective because it brings people together so that they can learn from one another” (Hines, 2003, p. 4). The third rule of evolutionary management, then, will be, in Hines’ terms: **3. Mix people together.**

*When it comes to "managing through people", managers tend to be more willing to form homogenous work teams, although heterogeneous work team might be more efficient and prolific in mixing ideas in order to design better policies. Moreover, managers tend to be rather uncooperative in relation to managers from other companies, although such a cooperation might be a valuable source of "better ideas".*



Hines' third rule seems to imply that always learning brings advantages. This is obviously wrong, or at least partially wrong, due to the fact that the complexity of many organizations is indeed high. Be this accepted, then one comes to a dead-end: in no way can an individual or a group of individuals figure out always which are the most suitable policies. Even if one reconciles all people's opinions regarding which are the most suitable decisions, this does not necessarily mean that the output is a good policy, but only that it is the policy about which people believe that it is the best. People need to be oriented in their learning; otherwise, what they learn might as well be either right, or wrong. In the end, everything they learn will be equally acceptable.

When it comes to biological systems, as Hines puts it, there are many neutral changes that generate a "genetic drift", i.e. a series of events that lead to changes in phenotype, without being at the same time a corresponding "increase in fitness" (Hines, 2003, p. 5). There is, of course, a correspondent at the organizational level, namely the "learning drift": people "learn from one another", meaning that the ideas are recombined, but this fact does not necessarily lead to any increase in what is "corporate performance". Which is, then, the solution for making an organization more efficient, given the fact that nobody knows for sure what people should be taught? We are again to take into account what nature has to say about this.

Nature does not say precisely what feature is better to be inherited by the offspring: it only states that the parents are the source from which inheritance emerges. According to the rules of sexual selection, nature does not impose to any living being which is the other living conspecific to "(re)combine with"; it merely restricts the area of possibilities to those conspecifics that were "fit enough to survive", as Hines states. When the decision regarding the mating is taken by nature, then it enforces "team formation" by means of "sex-drive", or sexual instinct. At the organizational level, this corresponds to the fact that organizations are not supposed to determine what is to be learned, but only from whom is to be learned. The term used by Hines to designate the organizations' characteristics that sustain "learning from selected teachers", as Hines says, is "pointing and pushing mechanisms", and they correspond, at an organizational level, to natural and sexual selection. Children will receive the good and the bad things from their parents, just as people, in an organization, will "imitate the wise things and the foolish things".

Organizations are compelled to create or discover "pointing and pushing mechanisms" that are able to select those people who have been successful in their actions, and by virtue of these mechanisms, the others are supposed to follow them, "to imitate and learn", (Hines, 2003, p. 5).

Therefore, the fourth evolutionary rule is: **Set up or discover an effective pointing and pushing mechanism.**

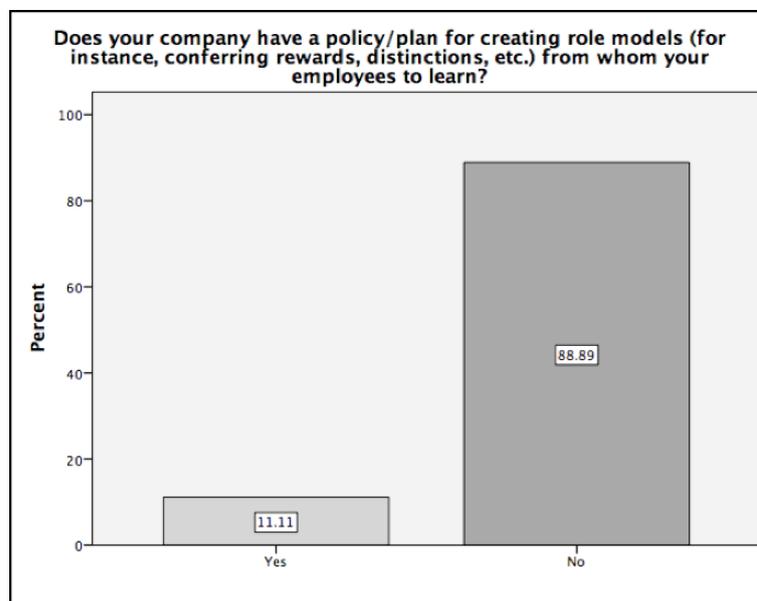
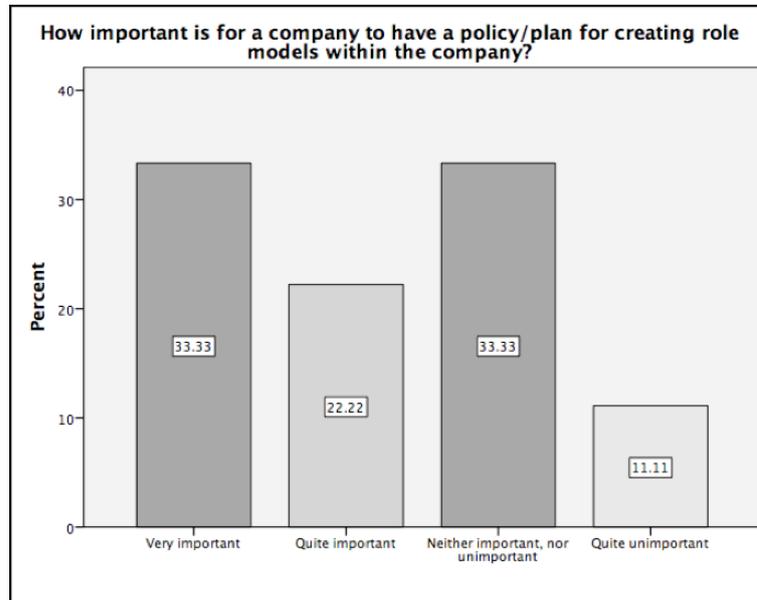
Hines considers that effective pointing and pushing mechanism must meet a set of specific requirements, so in order to successfully enforce the fourth rule, one needs a pointing and pushing device that will be "powerful, public, pointable, and persistent" (Hines, 2003, p. 5).

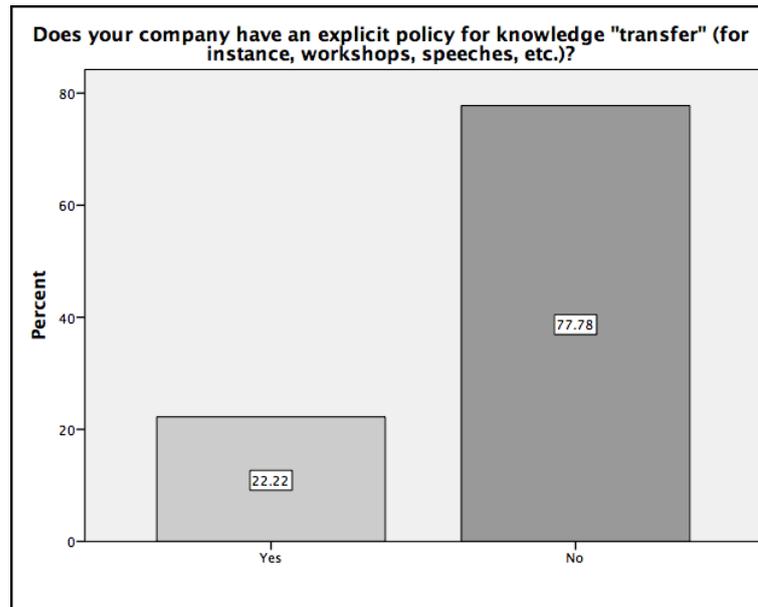
- (1) Powerful. If the mechanism is powerful, it generates a forceful push. In the case of biological organisms, the power belongs to the sexual instinct. In the case of organizations, a powerful mechanism would be, for example, the position held in management hierarchy. This position determines people who are on lower hierarchical places to follow (imitate or learn from) those who are on higher places. People desire to climb higher within this hierarchy and they think that this aim can be reached by means of following (imitating or learning from) those who have already obtained these higher places.
- (2) Public. If a device that is meant for pointing must point, then it has to be easily observed by people. Hines states that the most important characteristic of a pointing device is to be public. Moreover, the place within the hierarchy is also public. One way to make the occupant's place public is to mark the office doors with signs that make this clear.
- (3) Pointable. Even if a pointing and pushing device proves itself to be pointing and powerful, it cannot achieve its goal unless it is oriented towards what someone wants. Thus, it has to be pointable. In order to get this, the device must be submitted to control by the organization.

Again, we can use the concept of hierarchical position in order to understand this: an organization can simply create a position, and anybody can be placed on that position – meaning that the organization “can point to whomever it chooses”, as Hines puts it.

- (4) Persistent. Last, but not least, comes consistency. Nature’s road to success does not relate in any way with changes that occur every few days, otherwise, no species could evolve in any consistent manner. Following the same pattern, organizations that use “pointing devices” and change every now and then the meaning of the idea of success have no chance to “evolve in a consistent direction” (Hines, 2003, p. 6). Just as their biological correspondents in case of “genetic drift”, this type of organizations is heading also for a drift. As a consequence, one must not keep on redefining the concept of success again and again, but its meaning has to be persistent.

*Although the majority of managers recognize the importance of role models within a company (people from whom other employees must learn), some of them fail to admit that "the power of example" might be more efficient than other measure for imposing certain rules on people. Moreover, even those managers who acknowledge the importance of role models admit that they do not have either explicit policies for creating such role models from whom employees to learn or clear plans for an efficient "knowledge transfer".*



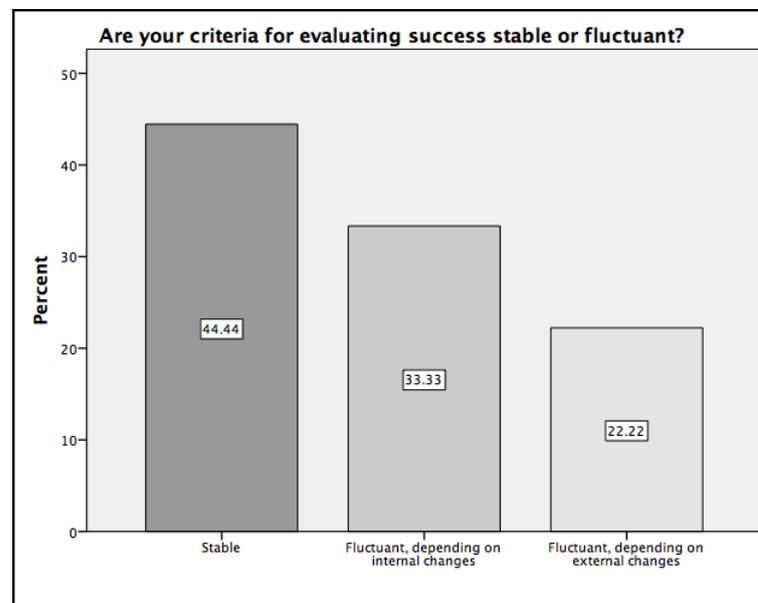


If an organizational mechanism of pointing and pushing qualifies as powerful, public, pointable and persistent, then it will “tend to foster evolution”. Moreover, if policy innovation is under control, then an evolution in a certain direction is ensured for the company. Still, this does not mean that company’s people will take this evolution as being a better one.

Given these facts, Hines is entitled to say that one of the highest – if not the highest – responsibility that bears upon evolutionary management is embodied into the fifth evolutionary management rule:

**Choose a direction of evolution which people will really want.**

*An essential condition for choosing and following the best direction of evolution within a company is the stability or persistence of criteria for defining success. If the definition of success is stable, then all the members of a company will have equal access to company's resources, be they knowledge or hierarchical positions. Nevertheless, managers tend to periodically alter the "content" of success depending on both internal (for instance, a certain personality type, which is preferred just because one individual happened to be promoted), or external criteria (for instance, a certain treat is preferred just because is "fashionable").*



Hines point out that, all too often, even if not openly admitted, when it comes to promotions within an organization, they are usually related to “(1) having a particular personality type, (2) the ability to play politics, and even (3) the ability to lie” (Hines, 2003, pp. 6-7). If the pointing and pushing device singles out people that were successful with respect to these three criteria, then the output will be a company that is more and more “dominated by personality, politics, and lying”. The rules of evolution are making a company to follow more and more these lines, despite the fact that no one in the company agrees with this path of evolution.

Still, the most difficult task is to implement all these rules. The management is compelled to handle this important task of clarifying the numerous “implicit policies”, as Hines calls them, that rule over human organizations. Be this as it may, an important part of the management is to place policy control under surveillance without eliminating creativity. Moreover, the pointing and pushing mechanisms must not do any harm to the established management hierarchies, but still they have to allow the “mixing of people for learning”. Given this fact, the role of the leaders is to set up some evolutive directions that can amass the loyalty of all participants to a business.

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