

TAMING COMPLEXITY

Summary of a lecture to the senior managers of the Republic and Canton of Geneva by Claudio Chiacchiari, 8 November 2011, Salle Frank Martin (Geneva), 4.30-6 p.m.

Complexity, the composer and the manager

Complexity within the company is in the process of becoming a major certainty, especially for managers. In a knowledge and services society where the level of training and information is constantly on the up and where the human factor has become primordial, management is becoming increasingly complex in that its organisation reproduces an earlier order of hierarchy, processes and compartmentalisation, hardly compatible with the rapidity of change and the new intellectual potential of individuals.

Complexity is often perceived as an insoluble problem or puzzle resembling the music of Varese. How can we transform our view of complexity, this extreme multiplicity of interactions and interferences among a very large number of units (E. Morin, *Introduction à la pensée complexe*), into an admission that it is actually a blessing? A first lead is to recognise that the problem does not reside in complexity as such but in the lack of clues for apprehending it. While the competence of the conductor of an orchestra in directing, coordinating and functioning as a driving-belt is still needed, it is no longer enough when confronted with complexity. A manager needs to possess the skills of a constructor of complex living organisations or those of a composer.

Composing is a profession that involves above all the acceptance of considerable constraints, whether technical, human, financial, contextual, ethical or aesthetic. To go a step further:

Anything that removes a constraint from me deprives me of a strength.

Igor Stravinsky, *Poétique musicale* (Flammarion)

Composing requires that the system be approached as a global whole. For example, a Director of Human Resources has not only to take human resources processes into consideration, but also, as Steve Jobs the Apple chief did, aspects such as production processes, the nature of services and products, the workplace, the technical limits or the design quality of tools, financial and logistical angles, and issues of image or context.

Composing means inventing, combining, connecting and introducing a variety of forms like a craftsman in the hope of producing a flexible and enduring organisation. In the last instance, composing involves the simultaneous cultivation of an ambitious vision and a taste for detail, since when it comes down to writing it is always just one note at a time:

[Far more than the idea] it is the shaping that is the true test of talent.

Béla Bartók - *Ecrits* (Contrechamps)

The recent evolution of medicine, like that of companies such as Apple or EasyJet, shows that one of the key conditions for steering a way through complexity is to involve actors and users as co-composers” of the enterprise, and not only in performing tasks or in consuming goods. Ultimately it is a matter of taming complexity by producing complexity and daring to take a risk:

*Vigorous and exacting thinking tends to want to create its own material,
and, vice versa, new material inevitably entails a renewal of thought.*

Pierre Boulez, *Leçons de Musique* (Christian Bourgeois)

Taming complexity means pursuing the dilemma, the essential feature of complexity in composing, and not the method. Solving a dilemma (there are three in this lecture) involves reconciling what *a priori* seems irreconcilable. The best approach is play. Play can be understood as the capacity to use constraints to speculate creatively, to override compartmentalisation, to disperse the torpor of habit and to take a fresh look elsewhere as Paul Klee invites us to do in his picture *Ad Marginem* (In the margin). This margin resembles the manager’s margin for manoeuvre. The fact that it is narrow increases its complexity, but also a chance of finding an exceptional response to a specific problem.

Reconciling the simple and the complex

The issue here is to have the simple emerge on the surface of a complex system, which can equally be a team, a set of procedures, a project, a strategy, a process, a management style, a service or a product, because when the simple emerges an increase in user adhesion can be observed, whether these users are fellow-workers, partners or “clients”. The notion of the simple encapsulates the idea of not much, of smallness, of clarity, of continuity, of *tempo moderato*, of intelligibility, which primes the memory and moves. The notion of the simple here is neither a synthesis nor a reduction. It is the essential expression of what is within, below, submerged. It requires both an in-depth knowledge of the system and the capacity to fashion something new. Reconciling the simple and the complex needs something of a poet’s skills.

Reconciling the local and the global

One approach is to distribute a primary motif throughout the system in all its variety of forms: in music, a unit of a few notes, in the company an action verb. This represents neither the vision, the mission nor the objective, nor does it refer to values or culture, although it does to some extent reflect all of these aspects. While it is often barely possible to glimpse the grand strategy because it is too distant from those actors who do not have top positions in the organisation, the primary motif is also hard to discern, but for the opposite reasons: too omnipresent, too familiar, too close. This motif is a functional element which resembles DNA. It can be identified not only in the actors but also in processes, sectors, tools, products and services. For example, the primary motif “replacing”, proposed as the motif of the strategy for phasing out nuclear power decided by the Federal Council in 2011, can take the form of “changing” technologies or consumer habits, of “diversifying” sources of supply or means of production, of “renewing” the actors and companies in the electricity sector, or “developing” energy-saving policies or more energy-efficient buildings. Working with a primary motif strengthens a strategy’s coherence and balance and helps to bring about unity in diversity.

Reconciling the local and the global needs the skills of a mason and an architect.

Reconciling the short run and the long run

A first approach consists in repeating a theme by varying it over time. A theme is a symbol for any identifiable element in the organisation: a meeting, an evaluation process, a procedure or the name of a range of products such as iPod, iPhone or iPad. Repetition structures time and induces confidence because it permits recognition and anticipation. Too much repetition, however, has a dulling effect. A close association is therefore necessary between repetition that structures and variation that brings surprise, while bearing in mind that too much variation is stressful and may undermine the cohesion of the organisation. A second approach consists in giving a clear direction to the long run so that both actors and users will benefit from a dynamic, a direction and meaning. The complexity of the short run is better confronted when the direction of the long run is clear. So, thinking in long run terms induces the composer to rethink his venture and his role in greater depth and humility, because this type of thinking means admitting some degree of impotence. The explosion of chronic diseases, those long-term maladies linked to the ageing of the population – cancers, for example – causes medicine to evolve towards a more human medicine based on listening and telling, which accompanies, involves and assigns responsibilities so that patients become actors as regards their health rather than care consumers. The relative incapacity to treat chronic disease ultimately brings both doctor and patient to question the meaning of life and the limits of science.

Reconciling the short and the long run requires something of a philosopher's skills.

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