

THE THEORY OF SELF-ORGANIZATION AS A SOCIETAL INTERMEDIATION

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Abstract: Does society self-organize (herself)? Or, to be more concrete, can the notions of self-organization from complexity theory mediate both the understanding of and the interactive participation into social realities? In this paper, we intend to critically examine the sense and the presuppositions to answer such questions. Besides being attentive to the fallacies of reductionist naturalism and normative scientism, our reluctance towards the notion of societal self-organization stems from the fact that this is a notion of an epistemological particularism, which is unscrupulously claimed to be globalized without any serious questioning of whether it possesses such a global applicability. Thus, in the current globalization context, societal self-organization appears as a theoretical “globalized globalizer,” when it pretends to expand theoretical mediation holistically by arbitrarily translating a scientific paradigm shift into the domain of human actions and social practices. Since such an intrusion may wield the transformation of science policy into a social policy fitting the standards of globalization (as well as of the public understanding of modern science into the scientific understanding of a globalized public), it is quite imperative to argue about its real viability.

Postmodernism, Self-Organization and Society

Talking about what he calls “armchair postmodernism,” Richard Coyne refers to a certain “uncommitted philosophical reflection ... indiscriminately clump[ing] all major contemporary phenomena together, as some heterogeneous array of unconnected voices: computer networking, genetic engineering, deconstructive architecture, artificial intelligence, poststructuralist literary criticism, chaos theory, the demise of communism, the stock market crash of 1987, virtual reality, quantum physics, and Martin Heidegger.”¹

In fact, more than chaos, such theories as those of self-organization or complexity are often preached as modeling the perplexities of the so-called New Economy: “Some experts argue that in many ways *complexity is the science of the Information Society*.”²

On all these Steve Fuller answers: “An important consideration in my thinking is that I believe that most of the ‘complexity’ claimed for the postmodern condition has been manufactured by academics themselves, often unwittingly and in response to circumstances not entirely under their direct control. When I say complexity is ‘manufactured’, I mean that it does not refer to something deep about the nature of reality that is, in principle, independent of the collective activity of human beings. Thus, while we may have been caught off guard by the realization that we now live in an especially complex world, nevertheless the processes of ‘intermediation’ involved in constructing this complexity can, and should, be reversed.”³

In what follows, we intend to discuss the problems with the intermediation of the theory of self-organization within the present day society, the so-called Information Society. These are problems of the efficiency of the notions and the methodologies of self-organization to grasp the societal dynamics. This is why a discussion on issues of science policy based on the results of the societal self-organization needs to take into account such a problematization of whether these theories really possess any interpretive or explanatory value in human and society affairs.⁴ More than this, understanding the malfunction of the theoretical intermediation purported by societal self-organization might be a necessary step towards the politics of ‘disintermediation’ of the institutions of science.⁵

What does it remain after the intermediation of everything?

Self-organization theories provide us with a holistic approach to understand the dynamics of societies by conceiving them as totalities comprising interacting parts and subject to environmental determinations. Of course, the bigger such a system is the more trivial becomes its self-sustainability, as the outside determinations tend to debilitate. This raises the question whether the self-organization of a huge system as, let’s say, the European Information Society is either too trivial or too restrictive. If the discrete identity of the European information society is taken granted to have already emerged, then self-organization is a mere redundancy and the problem is to understand just how organization in Europe is achieved under the prevailing informational relations. On the other side, if our analysis intends to follow the mechanisms of the emergence of the European Information Society, then this can only be done in a global context through an inclusion of the extra-European interactions (between, say, Europe and the USA or Japan). In this case, insisting on the self-organization of Europe might be a restrictive and rather provincial approach.

These considerations lead to some very important policy consequences on the intermediation suggested by the theory of societal self-organization. In a globalized international economy, the policies, which are based on a European self-organized view, tend to support a reinforcement of the European component in the global system. However, such European self-organized policies are only meaningful as far as they are backed by a dominant role that Europe can play in the global international scene. Otherwise, they signify a bias towards a European insulationism.

Is there anything outside a self-organized medium?

Since self-organized systems are usually supposed to be impregnated by some organizational stability (otherwise, simply they would be disorganized), when they are

restricted to proper subsystems of the general social system (for reasons discussed above), an interesting question is what happens to the exterior of their boundaries of their medium. This concerns the possible attractivity or repulsion that actors outside a self-organized system feel and experience for it. In fact, most of the existing systemic literature is concentrated on the interior dynamics into a self-organized system (the maintenance of its identity and its operational closure) and seems to neglect questions about the “boundary-work.” However, this is an important issue, because sometimes it might include some apparent contradictions. It might be the case that the internal mode 2 self-organization may be abandoned for a more stirred mode 1 strategy when the system comes to deal with its “neighbors” and even to expand its “territory.”

These issues⁶ should be of interest to policy makers who adopt models of societal self-organization. Stabilizing a certain self-organized system might create destabilizing effects to another one. This is why an ecology of self-organized systems is necessitated in order to keep track of the global arrangement and to avoid a regress towards those more traditional managerial (and sometimes Machiavellian) approaches that self-organization pretends to overrule.

How normative the intermediation of self-organization can be ?

Beyond the regime of physical or biological phenomena, where self-organization theories were first developed, their application to the dynamics of humans and societies confronts certain conceptual and methodological difficulties. Such is the question of naturalism, determinism, predictability or normativity concerning social theories inspired from the so-called hard sciences. An extreme outcome to the adoption of the evolutionary perspective in societal self-organization might be a naturalistic reduction (as, for example, the sociobiological epigenetic determinations do⁷). Moreover, social dynamics is highly contingent, eluding determinism and predictability at least in the way these are understood in hard sciences. Furthermore, systemic theories possessing normative or prescriptive values (as it happens with the Parsonian theory) are in general considered soaked in a certain degree of practical inflexibility. On the other side, conceiving the theories of societal self-organization in a descriptive or interpretive way contradicts their very idea as systemic theoretical formations. Otherwise said, this is a situation of an organizational reification, in practice favoring a reductionist way to see societies, despite the original holistic pretensions of self-organization theories.

These ambiguities penetrate the science policy ground too. For example, some theories of self-organization in societies depend on circularity between causes and effects, which may result to confusion about the role of human agency. If the system is self-produced, then how can human agents or social institutions change themselves and intervene to their environment? In this sense, even the very idea of a social policy is shattered by the most self-consistent and reflexive self-organization theories: If any action is conditioned by the system intermediation (inter-relations and inter-dependencies), then how meaningful is it to discuss about the possibility of certain policy recommendations, which are going to influence things in one way rather than another? Of course, social policy considerations need to take into account the empirical emergence of possible social interlockings determined by some critical configuration of the relevant rules and the participating actors. However, this does not necessarily imply an understanding of such a dynamic equilibrium as a determination

of actions by rules. Rather one could accept Giddens' structuration theory⁸ (or other morphogenetic⁹ or critical-realist¹⁰ approaches) according to which rules are better seen as resources for action.

How ahistorical the intermediation of self-organization might be?¹¹

Although in principle self-organization theories are not just dynamic but even evolutionary, they are based on a construction of time according to their own unfolding, which might be opposing the historical timing of the underlying actors and processes. For example, the self-organization of the European Information Society might depend on the rate of innovations in information and communication technologies in Europe. However, the European societies and their social constituents possess a different sense of historical time according to their development, transformations, traditions, cultural heritage, etc. What happens in physical self-organized systems (where actually time "stops" when an equilibrium or an attractor is attained) is far from the timing of social systems, where situations of unequal development are mostly the case. But this doesn't mean that in all systemic approaches there is such a misunderstanding of the significance of history: Wallerstein's¹² world system theory is an example of an alternative consideration.

Again, policy recommendations based on the internal timing of a self-organized process might run the risk to be opposing the timing of some of the actors in the process. This can be seen in the case of the affirmative action policies, which are certainly self-organizing as far as they aim towards a more democratic society. However, gender issues at work and in society have their own history of movements against subordination, which was driven by the political struggles stirred by the determination towards emancipation of a certain feminist avant-garde.

On the positive value of the intermediation of self-organization

Most scenarios of the self-organizational intermediation inoculate it with a certain positive character as far as it is believed that an organized state is "better" than a non-organized (say, erratic or chaotic) one, something which is augmented by the spontaneous self-creativity of "self"-organization. Of course, this is just an ideological appropriation of the meaning of self-organization, because there are systems which might be organized in a negative sense (an example is traffic or even Internet¹³ congestion). However, the essential thrust of societal self-organization is towards the development of consensus, integration and unity, which are considered to be the functional characteristics of the system. On the contrast, in the systemic self-organization mainstream, dissensus, disintegration and disunity are assumed to correspond to some sort of pathological or dysfunctional exceptions or deviancies. Moreover, the consensual alignment of the intermediation of self-organization within society is related to its technocratic orientation and its denial of the role of conflicts and material interests in the social construction of reality.

In any case, the fact that self-organization is favoring consensus vs. conflict should make policy makers very cautious when they are following self-organization, because of a well known peculiarity of social things and processes. A typical social situation is the one of the emergence of unintended (or unanticipated) consequences, when, for example, an intended self-organized social arrangement turns out to implode into a

disorganized pattern. Such a surprise is one of the things making social entities and the dynamics of societies to be not only interesting and exciting to be studied but also quite different from the regularities of the physical world. A related anomaly to the homogeneous way that the intermediation of self-organization tends to confront reality is the case of the emergence of various social heterogeneities as those of social differentiation, fragmentation or segregation, which are constantly developing on the Information Society.¹⁴ In this sense, the gestalt of a “fractal” intermediation appears to be a genuine disintermediation.

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NOTES

¹ Richard Coyne, *Designing Information Technology in the Postmodern Age: From Method to Metaphor* (Cambridge, MA: The MIT Press, 1995), p. x.

² This is from an official EU document prepared jointly by Eurostat and the IST Programme (DGXIII) aiming to kickstart the process of preparing projects on Statistical Indicators and the New Economy.

³ Steve Fuller, *The Governance of Science* (Buckingham: Open University Press), p. 78.

⁴ The fact is that certain approaches of self-organization applied into society have already received a number of negative criticisms. See for example the review of Sal Restivo of *Selforganization: Portrait of a Scientific Revolution in Science, Technology & Human Values*, vol. 11 (1994), pp. 117-119.

⁵ In this sense, Steve Fuller proposes that “the university recover[s] its Enlightenment promise by becoming, so to speak, a medium of ‘disintermediation.’ The university would thus aim to reduce the complexity of the social world as part of an overall strategy of empowering citizens to pursue common ends” (p. 114).

⁶ These issues are essentially obscuring the “Modists’ ‘stereoscopic’ view of the history of knowledge production,” according to Steve Fuller (p. 80).

⁷ Edward O. Wilson, *Consilience: The Unity of Knowledge* (New York: Alfred A. Knopf, 1998).

⁸ Anthony Giddens, *Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis* (Berkeley & Los Angeles: University of California Press, 1979), and *The Constitution of Society: Outline of the Theory of Structuration* (Berkeley & Los Angeles: University of California Press, 1984).

⁹ Margaret S. Archer, *Realistic Social Theory: The Morphogenetic Approach* (Cambridge, UK: Cambridge University Press, 1995).

¹⁰ Roy Bhaskar, *Scientific Realism and Human Emancipation* (London: Verso, 1986).

¹¹ This is what Steve Fuller calls “temporal (dis)intermediation” (pp. 79 & 114).

¹² Immanuel Wallerstein, *The Modern World System* (New York: Academic Press), and *The Capitalist World Economy* (Cambridge, UK: Cambridge University Press, 1979).

¹³ Bernardo A. Huberman and Rajan M. Lukose, ‘Social Dilemmas and Internet Congestion,’ *Science*, Vol. 277 (1997), 535-537.

¹⁴ The gloomy perspective of the so-called Informational Balkanization gives such an example.