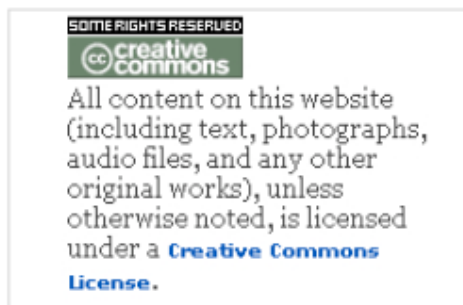


Systemic Complexity for human development in the 21st century
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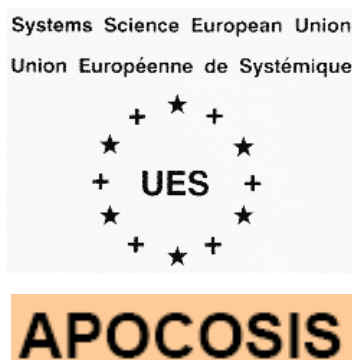
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Systemic approach of individual and social complexity

Marie-Noëlle Sarget
EHESS/ Ladyss (Paris)
sarget@ehess.fr

Abstract

If the notion of “collective” refers to something quantitative, that of “society” refers to the relations existing between its members.

But an organisation qualified as “social” can’t be anymore considered as made of abstract elements in a system: following Bernard Lahire, Yves Barel, Edgar Morin or J.W. Lapierre, it supposes the complexity of individuals composing it. If it is a source of richness and renewal for society, such complexity introduces a variety that may enter in conflict with the interests of society or collective rules, in the short or the long term. But it is also the condition of its capacity of change and adaptation. A systemic approach is of much help to think about the old sociological problem of relations between individuals and society, pointing antagonisms and complementarities of individual and social complexity.

Keywords: complexity, social systems, collective, community, society.

I - About the definition of the collective and the social

If any society is a collective, any collective is not necessarily a society: for instance, people traveling in the same plane are a collective, not a society.

When the term of “collective” is defined in some way with a quantitative criterion – it is opposed to “individual”, and puts together individuals whose links are not defined –, in sociology the term of “social” refers to relationships taking place between men in a collectivity. We are talking of “social link” to refer to relationships between people, and facts or social phenomena are defined as “those resulting of reciprocal relationships between the members of the group or of the organical whole made up by society”. The “social” concerns the behaviour of the individual with his fellow men in society as well as of groups and classes of society between themselves. A society is so constituted with relationships between persons (or animals) ruled by a form of the work, and putting something in common. The notion of social or society sends then necessarily back to a complex organized and structured system of interactions, that is not always present in the collective.

Let us remind also that sociology traditionally goes back to Tönnies distinction between two types of foundations of society, the *gemeinschaft* – or community –, spontaneous grouping based on proximity of natural origin (vicinity, consanguinity), relative to a rather traditional type of social link, and the *gesellschaft* – or association – grouping based on willful adhesion or interest, that characterizes mostly contemporaneous social relationships. *Gemeinschaft* and *gesellschaft* may anyway combine in different ways, and in various degrees, be for instance, of hierarchical or egalitarian type, characterize by participation or exclusion, or by cooperation, antagonism or competition...

The crossing from the “collective” to the “social” supposes then at the same time that organization increases, and the development of the links between individuals part of the collectivity.

II - Individual complexity and social complexity

May a collective organization complex enough to be qualified of social being composed of very simple individuals?

I think that a first answer, negative, can be found in anthropology: even societies said “primitive” suppose various differentiated social roles. And even in these societies, where social rules are strongly entered till inside the flesh of teenagers, the individual can’t be qualified as “very simple” insofar as what happens is not an exact reproduction of practices in social roles defined once for ever. They are not societies “without history”, but societies where the rhythms of historical evolution and social change have been until now relatively slow ; the aspiration to change may also appear, and emerge, there as in other places, from the individual. And Pierre Clastres reminds us, with the interpretation he makes of the singing of the Guayaki indians, that even in primitive societies, the dream to escape social constraints exists: by that singing they assert to be individualist, refusing the exchange and the sharing that society imposes for the products of hunting and women. And in our own societies, the fact that inside the same family, some children form themselves by identification and others by opposition to the adults attests also the difficulty of a programmable social reproduction.

A second answer, complementary of the first one, and equally negative, is brought by the sociologist and systemician Yves Barel in his brilliant, precursory and not enough recognized work, "*Le Paradoxe et le système*" : social roles relatively simple defined by the specialists of the different human sciences are only analytic processes, isolating the behaviour of the actors in the different political, economical, social, cultural systems... But it is clear that the *homo oeconomicus* is also a family father, a citizen, participating in such or such religion, etc. Said in a different way, the multiplicity of social roles founds the complexity of society, but the relative simplicity of each of the roles isolated by social analysis has not to leave to forget the complexity of the concrete individual playing in turns and sometimes simultaneously several of these roles: Barel insists so on the fact there can’t be simple elements when it is matter of social systems, because their place is held by individuals always complex.

The complexity of the individual reflects then, in a great part, complexity of collective organization. Besides, it is mostly transmitted to him in human societies by this organization through the teaching received in the family, the village, and now at school. Education ends to transmit social norms, values, the theoretical and technical knowledge of the society to the individuals, who internalize them. But the complexity of the individual goes beyond, or in any case escapes the collective organization, and the whole is something else than the sum of the parts, that are, for their part, something else than the whole. That complexity is also variety, wealth, and may allow the collective organization to develop, to change, because any closed system aims to entropy, and the opening to outside makes negentropy possible. When identity and submission to norms are too strong, the complexity of the individual is near to be reduced, and few change remains possible. On the contrary, in societies where social constraint is less powerful, more flexible, another virtual may emerge from instinct, genetics, individual nature, art, creation, or relationships developed at the individual or collective level with outside, by which information may transit: such contacts with alterity are a condition for renewal and change. Autonomy of individuals and groups in society is a condition of its variety, vitality, and innovation.

Meanwhile, there may be oppositions between the individual and the collective, linked to number, threshold effects : what is worth at the individual scale is not always worth at the scale of a society in its whole, and quantitative thresholds must be taken in account. In addition, the viability of collective organization implies not only diversity, but also a positive complementarity of individual functions. For instance, it is nice for an individual to have a car, but an ecological disaster or standstills impeding any traffic may occur if all people use it at the same time. There is, also, a precarious and difficult to hold equilibrium between normalization and autonomy : so that autonomy of individuals enriches society, the link between the individual and society must be predominant. It is, somehow, the meaning of the freudian message: so that social life and civilization may be possible, the “id” must remain submitted to the socialized “ego” and “superego”; and the individual must control his aggressive or sexual impulses to the benefit of the respect of norms conditioning social cohesion. If the autonomy of the individual overrides his link to society, its effect on that one may be more negative than positive, and aim to limit its progression or even to its desintegration: it ‘s all the problem, for example, of the brain exodus from poor countries to

developed countries, and the meaning of the unsuccessful attempts of the USSR to keep its scientists and intellectuals trying to go to western countries. Here, there is a contradiction between the logic of individual interest and the collective logic: individual interest may push the members of the community to go away to improve their intellectual and scientific capital in another society, unless to participate to the development, often slow and difficult, of their own society.

In reality, the problem if exists or not a contradiction or an opposition between the individual and social function principles is from a long time matter of differences between social sciences specialists.

Let us take, for instance, the case of the economists. For the liberal economists, and notably, the utilitarians, this opposition almost doesn't exist: the individual and collective interests are going in the same way, the individual work benefits to all society, the work of the richer enriches even the poor by the dynamism and jobs he creates. Likewise, on the political level, more or less at the same time, in the social contract, the collective will emanate from individual choices, and the majority emerging from the votes is supposed to represent an optimum at the same time for individuals and society. In one case like in the other, the conflict is not a subject for thought, and the accent is put on the coherence between individuals and society, gathered around a common objective, the progress.

On the opposite, socialist thinkers and Karl Marx will point the conflict between the own interest of proletarians, on the one hand, the fact their economic future is assumed by the "invisible hand of the market", and the political one by the representation processes of the "burgess" democracy, on the other hand. They denounce the flouted interest of the worker alienated to the division of work, and the sacrifice of the interests of the proletariat, but also of the whole of society, to the whole of the bourgeoisie. For Marx, the proletariat is the only class able to take charge of collective interest, and overcoming the crisis of capitalism, to lead society towards an affluent society where alienation has disappeared: communism. If in capitalist society, there is a contradiction between the principles of individual functioning with those of the whole of society, it is supposed to disappear with the arrival of a society without classes: the contradiction between the working class and its emanation, the socialist state, won't be possible, and the strike will be forbidden.

Neither to conceive nor accept that contradictions exist between the principles of functioning of individuals or groups and those of global society, is, so, a concept that may lead directly to totalitarianism. The problem is the same when it is matter of national ethnical or religious minorities, that can be considered as a danger for the unity of the nation, wearing dangerous values, and responsible of the various failures of the society. Marginality is rejected in the name of cohesion and salvation of the community, the diversity of which, and then, the complexity, may be reduced by means that can go from the strengthening of the social control, as , for instance, in the Singapurian society, till ethnical purification.

Between an autonomy excessive in relation to what a given society can afford, going until the detachment of the individual, and a concept of collective unity prohibiting any individual autonomy, there is place for another concept and another practice of autonomy, where the individual or the marginal group enrich the social body, that enriches them in his turn, but less naïve than liberal concepts : the autonomy of individuals or groups is a place of tensions between the individual, the minorities, wearers of an internal or external elsewhere, and the collective to which they are linked. It is because of that "else" that this enrichment is possible. The individual links society at the same time to reality and to the outside, at his own level, and enriches it with these links: for instance, the contacts and visions of a French man travelling in a foreign country are not the same as the representative of his government may have; back to France, he will spread his own vision, that may help to modify the collective one. In the same way, concrete individual experience, for example of divorce or unemployment, is not always squaring with what makes a large consensus in a society, and with what express collective rules and law about it : real life experience can give birth to new ideas that may lead to change norms ruling individual behaviours. There is, the, a permanent interaction between levels.

Opposition or contradiction are often just a moment in that process : so, the artist sometimes has to retire in his own privacy to develop his marginality and his creative capacity, against his own society, to be able, precisely, to produce something new : Van Gogh would not have been Van Gogh if he had not accepted the marginality linked to his new concept of paintings, that was recognized by the whole of society later, and could then fecund it. Most oppositions and contradictions disappear after time enough for the integration process, and the individual and the particular dissolve in the social. Such process is meanwhile always painful, at the same time for the innovative individual or social group, as for the society, because change or development are usually lived as difficult wrenches to the past, even if they come with evident measurable and tangible betterments.

II - "The plural individual" of Bernard Lahire

The sociologist Bernard Lahire's project is, according to him, to "sketch a theory of the plural actor". It opposes so at the same time to theories looking for the specificity of the actor, of what would support his behaviour – as, for example, the habitus, the rational actor – and to the ones based on the myth of invariable personal identity. Refusing to reduce the multiplicity of the self and of experiences, Lahire tries to replace the actor in the social conditions producing his behaviour (home, work, historical environment, etc.), and to reconstitute his socialization process: he points the multiplicity of social contexts, of variety of habits, and shows there are often shocks between the different contexts of formation, evolutions in the different steps of life, incoherence between school and family, or family and professional worlds. Referring to the "fields" of Bourdieu, he indicates there may be conflicts for belonging to different fields, giving birth to psychic conflicts...

He distinguishes theories giving much importance to the past of the actor, from those not caring for that ; for him, the question of the relative weight of past experiences and present situation is basically linked to the internal plurality of the actor and of logics of action, in case of inadequacy, for him the more frequent. If the role of the memory is important in behaviour adaptation, the past must not be supposed deciding a priori: it sets up tendencies, but there must be some specific present conditions to permit their reactivation: the absence of present triggers let the past in standby mode. Like systemic approaches, Lahire then privileges the role of the context, and underlines that a change in the context is equal to change the forces acting on us.

These considerations lead him to criticize Freud or Piaget's positions in favor of initial schemas, rather fixed, that could not stop to spread and develop. He writes: "And if, instead of to dilate, these schemas were just inhibited or deactivated to leave room to the formation or activation of other schemas?"

Lahire insists too on the necessity to recognize the plurality of action logics, that opposes him to utilitarianism, but also to systematic anti-utilitarianism (Caillé): "rather than to postulate a priori and once for all the existence of a specific theory of practice... it is better to reconstitute, according to social universes and social environments, according to the types of actors and the types of action, the different times of action and the different logics of action". He proposes, so, to develop a sociology of the plurality of the effective logics of action, and of relations to action.

He writes also: "the study of the social world teaches us that doesn't exist one model of action or of social actor, but very different types of actor and action... It happens with action, cognition, or practice theories like with any tool: none is adequate or pertinent for any type of action studied." He goes on: "one of the main shortcomings of theoretical discourses, in philosophy like in social sciences, consists in generalizing unduly a particular case of reality... If we consider the actor as rational or automaton, conscious or unconscious, etc., we are reasoning in an a priori, general and universal way not convenient in social sciences ... We could call to more modesty those operating such rises in generality, because it is, basically, matter of prestige in these generalist theoretical positionings". Because, unluckily for research, Lahire adds mischievously that "everything happen as if ... aiming the neck towards the sun, we finish seeing nothing of the details of the ground !"

To summarize, if he is in no way opposite to a partial and limited theorization, linked to experience and observation, Lahire condemns all what comes more from the researcher 's pretension and vanity than from a serious scientific process: on many points, he echoes systemic approaches proposing a complex vision of the individual and of social links.

IV - The contribution of systemic approaches

The systemic approaches – that would have moreover everything to win being inspired by calls to modesty and to scientific rigour recommended by Lahire – don't oppose his ideas, but bring other interesting points of view about processes constituting the "plural man", precisising the nature of social links, and the way the "plural individual" is built.

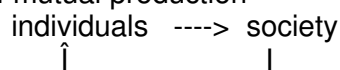
Identity according to Edgar Morin

Among the numerous works existing in systemics, the richest and more operational reflection handling that subject is probably Edgar Morin's, in the tomes 2 and 5 of *La Méthode, La Vie de la vie* and *L'identité humaine*, where he develops his concepts about the complexity of the social individual.

- Such complexity results, basically, in some way from the necessary place of the individual in any social organization in gradual change. He writes: "The society lives for the individual, who lives for society, society and the individual live for the species, that live for the individual and society. Each of these terms is at the same time means and end: culture and society permit the accomplishment of the individuals, and it's interactions between individuals permit the perpetuation of culture and the self-organization of society. He precisises farther that "in a certain way, our parents and our ancestries are in us... our ancestries are included in our identity". So, "the three trinitarian entities, individual, species, society, are inseparably engaged into one another like three wheels interdependent in a trinitarian polyorganisation, and they intergenerate between themselves. The social link is not the product of a social contract or of a pure physical constraint. It is the product of the trinitarian loop."

- The complexity of the social link is more precisely defined by Morin starting from his concepts from biology about self-organization, mostly developped in *La Vie de la vie*. He uses the expression "auto-(geno-phéno)-organization", to mean that organization of life combines necessarily the genotype -" hereditary patrimony inscribed in the genes" – and the changes linked to the context, leading to the "phenotype", "a complex entity result of interactions between heredity (*genos*) and the environment (*oikos*)"; it corresponds to "the expression, actualisation, inhibition or modification of hereditary traits in an individual according to conditions and circumstances of his ontogenesis in a given environment". The social link is, so, finally defined by Morin as a "dependent autonomy", because "there is no living autonomy that is not dependent. What produces autonomy produces the dependence that produces autonomy"; he adds:"all human activities are genetically dependent, cerebrally dependent. But it's from these multiple dependencies that emerges the mental autonomy of the human being, able to make choices and elaborate strategies". Meanwhile, "autonomy of the human individual becomes apparent in his quality of subject", who claims his identity from his hereditary and cultural dependency, and asserts his liberty insofar as he is able to criticize his own society.

- The complexity of the social link, at last, may and must be, according to him, methodologically handled with the idea that the link between the individual and society is defined by the loop of mutual production



that is a relationship at the same time hologramic, recursive and dialogic:

."hologrammic" means that society, like what happens in an hologram, is in the individual, who is in society

."recursive", because it's a loop of mutual production: the individuals are producing society, that produces the individuals

."dialogic", because the relationships individuals/society obey several different logics: it is, so, at the same time complementary and antagonist, or of rivalry; society is at the same time source of blossoming and of enslavement for the individual, that sometimes intents to

escape its control keeping a more or less private and secret sphere, sometimes merges in it, as in the communion of fetes in rituals.

- Morin develops also the idea of the development of social links at the time of globalization, beyond specific societies: he observes that with consumption and culture, the social link expands to the whole planet: there is formation of a planetary identity, of a planetary culture and mythology, and, at the same time, destruction of languages, societies, social links...

The Easton/Lapierre model

It is also possible to find in the works led by Jean-William Lapierre, starting from David Easton's work, a systemic and particularly operational approach of the "social individual": in a given society, a social group or an individual participate in many social systems – economical, bio-social, political, cultural, external systems –, but also to a multitude of sub-systems. They develop through that participation many various social links, that may be contradictory, as Bernard Lahire underlined it.

Social systems are action systems, interacting, and social links are woven by the interactions of social systems the ones with the others: the action of the political system on the economical system may so, for example, destroy or transform existing social links, as well as form new ones.

Conclusion

Elements then are not missing to surmount the reductive concepts of individual and society by approaches more rigorous and operational to take in account the complexity of reality in social research.

In that favorable context, the important contribution of systemic approaches still remains generally ignored by the largest part of the sociologist community, who prefers to use its own concepts – but also by those proclaiming to use systemics, who speak about complexity, but most of time still reduce individuals and social groups to simple, invariable and quantifiable elements of the system !

That's why I presented this paper...

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