Approaching “complexity” in anthropology and complexity studies: The principles of socio-political organization and the prospects for bridging the interdisciplinary gap*

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Abstract

Complexity is understood differently in anthropology and the complexity studies. I discuss the two principles of socio-political organization, particularly, the phenomenon of homoarchy as a counterpart to that of heterarchy. Respectively to heterarchy — “… the relation of elements to one another when they are unranked or when they possess the potential for being ranked in a number of different ways,” homoarchy is “the relation of elements to one another when they are rigidly ranked one way only, and thus possess no (or limited) potential for being unranked or ranked in another or a number of different ways at least without cardinal reshaping of the whole socio-political order.” For anthropology, it is wrong to postulate that either heterarchy or homoarchy presupposes a higher level of complexity, while for the complexity students the heterarchic model is more complex than homoarchic: It is not less sustained but has a higher degree of non-equilibrium.

Introduction: The essence of the problem

By the present, the complexity studies have firmly established themselves as a highly prospective field of research that embraces actually the whole variety of the living and still nature phenomena. This definitely means that the social scientists, among others, should be sensitive and responsive to the theories elaborated within the complexity studies in order to enrich their purely social-scientific approaches with the achievements of this broader discipline. This seems especially important for anthropologists and archaeologists, as far as just for them the notion of complexity is as central and as crucially significant as it is for the complexity studies students. At the same time, what ought to be comprehended clearly at the very outset, is a meaningful difference in the understanding of the phenomenon of complexity and, hence, in the contents of the respective term, between the social scientists and complexity students. In the social sciences (anthropology including archaeology) complexity is routinely, from the 19th century evolutionists (Claessens, 2000: 15) on, understood as structural, for the rise of which different socio-economic, political, ideological, ecological and other factors or their sets are regarded as responsible, depending on particular researchers’ approaches (see: Wenke, 1999: 331-385; Denton, 2004; Sassaman, 2004: 231-236). Thus, the more components, that is “levels of socio-political integration”, towering each other a culture embraces, the more complex the culture is, disregarding the way the levels (the structural components of the whole) are interrelated, and this approach differs from the one employed in the complexity studies — as sustained non-equilibrium. So, in the social sciences “[d]efinitions of complexity begin with a connotation that is as applicable to mechanical or biological systems as it is to societies: complexity is a relative measure of the number of parts in a system and number of interrelationships among those parts” (Sassaman, 2004: 231; original emphasis). A very recent clear application of this approach in anthropology and archaeology is provided by Henry Wright who further “canonizes” it by using as the background for codifying data for the “Atlas of Chiefdoms and Early States”: “Total complexity... is the product of specializations of local units, local exchange, and administrative complexity” — “the sum of administrative segments and decision-making” levels that tower each other (2006: 3).

This approach is recognized as valid not only with respect to separate societies but to their agglomerations either: For example, a world system is regarded as a complex entity, above all, because it comprises of a considerable number of constituent societies interrelated hierarchically, i.e., divided into core and peripheral. For the majority of social scientists bothered with the problem of societal complexity at all the socio-cultural history, in its worldwide dimension, is the history of constant unidirectional growth of complexity from simple to middle-range to complex and eventually to contemporary supercomplex societies and their aggregates accompanied by the respective growth of stability understood as the societies’ ability to cope with the prospect of their fission: “Change in the direction of increasing complexity goes on because more complex organization permits greater internal stability in the system” (Scott, 1989: 6). For the complexity students the threat of falling into chaos is not ever-persistent only, but also complexity, as well as stability, is measured not in the greater distance from a possible point of fission or chaos (and of course not in the number of structural components) but in quite the opposite: the systems that step aside further from this point are seen as less complex: “… just at the edge of chaos the most complex behaviors can occur — orderly enough to ensure stability, yet full of flexibility and surprise. Indeed, this is what we mean by complexity” (Kauffman, 1995: 87).
Heterarchy and homoarchy: Searching a solution to the problem from the social anthropology's position

So, it looks like a link between the social sciences and the complexity studies, although vitally necessary, can be set up only in a wider interdisciplinary vein and not without serious methodological difficulties. These difficulties are not insurmountable however, and the first attempts to bridge the gap have already been made from both sides: See, for example, the works by the complexity students Kiel and Elliot (1996), Bowles and Gintis (1998), and Shalizi (1999), by the representatives of different social sciences, including social anthropology, Day and Chen (1993), Adams (2001), Stanish (2004), Mosko and Damon (2005), Shyrbul (2006b), and Borodkin (2007); especially see the volume compiled and edited by Christopher Beekman and William Baden (2005) for a recent serious attempt to establish a productive link between archaeology and anthropology on the one hand, and the complexity studies on the other hand, from the standpoint of the nonlinear approach that lies at the heart of the complexity studies but is only nowadays forcing its way to the social sciences; not anthropology and archaeology only but socio-political history, political science, the international relations studies, and economics as well (see, e.g., Korotayev, et al., 2000; Shyrbul, 2006a; Borodkin, 2007: 12—28). In particular, that the two visions of the phenomenon of complexity may well be complementary and hence theoretically informative for both the social scientists and complexity students has been demonstrated recently by Carole Crumley (2005). For this purpose she made use of her conception of heterarchy “… as the relation of elements to one another when they are unranked or when they possess the potential for being ranked in a number of different ways” (1995: 3; see also 1979: 144; 1987: 158; 2001: 25; 2005: 39).

In this paper I introduce the notion and discuss (inevitably in brief — for more detail see Bondarenko, 2005, 2006, 2007) the phenomenon of homoarchy as a counterpart to that of heterarchy. Respectively to heterarchy, homoarchy may be coined as “the relation of elements to one another when they are rigidly ranked one way only, and thus possess no (or not more than very limited) potential for being unranked or ranked in another or a number of different ways at least without cardinal reshaping of the whole socio-political order.” The association used for delimitation of heterarchy and hierarchy in cybernetics is applicable for our purposes as well: “Heterarchy [is the] form of organization resembling a network or fishnet” while “[h]ierarchy [is the] form of organization resembling a pyramid” (Dictionary, 2004).

However, in the social sciences homoarchy must not be identified with hierarchy (as well as heterarchy must not be confused with egalitarianism [Brumfiel, 1995: 129; Smith, Michael E. and Schreiber, 2005: 205]). Hierarchy is an attribute of any social system while on the other hand, in any society both “vertical” and “horizontal” social links may be observed (e.g., Berreman, 1981; McGuire, 1983; Smith, 1985; Flanagan & Rayner, 1988; Johnson, 1989; Ehrenreich, et al., 1985: 1-5, 87-100, 116-120, 125-131; Blanton, 1998; Bondarenko & Korotayev, 2000c; Crumley, 2005)1, and it may be reasonable to speak about just generally homoarchic and heterarchic cultures. Even among the so-called “egalitarian” hunter-gatherers with strong ethos of equality and lack of pronounced social stratification (like the Hadza, San, Pygmies, Birhor, Palayians, Udhe, Shoshone, etc.) one nevertheless can observe minimal social differentiation, and hence hierarchies and inequality, combined with informal leadership (e.g., Johnson, A. W., and Earle, 2000: 41-89; Kaplan, 2000). Peter Schweitzer (2000: 129) legitimately insists on the necessity “to break up the general label ‘egalitarian’ into a continuum of actual constellations of inequality,” adding that today “… even ardent supporters of ‘primitive communism’ agree that ‘perfect equality’ does not exist…” On the opposite end of the scale even such societies as “archaic states,” usually thought of as socially immobile and heavily bureaucratized (Egypt, the Ur III state, the Inka kingdom, etc.), in reality “were both heterarchical and hierarchical [homoarchical]” (Marcus & Feinman, 1998: 11; original emphasis).

Herbert Barry III has even suggested a “formula” of “optimal” interrelation between the homoarchic and heterarchic features: “… a combination of homoarchic stability with heterarchical freedom of choice” (2005: 3) or, another way round, “… the individual freedom and adaptability of heterarchic choices combined with the predictability and continuity of homoarchic structures” (2004: 9). In particular, in the complex societies’ political systems, as Barry argues (2004: 9; 2005: 16), the optimum may be achieved by means of combining homoarchic subordination of the local units to a higher government with the heterarchical selected leadership at the local or better both the local and national, levels. More so: Sometimes it seems too difficult to designate a society as “homoarchic” or “heterarchic” even at the most general level of analysis, like in the cases of the late-ancient Germans and early-medieval “Barbarian kingdoms” in which one can observe the monarchy and quite rigid social hierarchy combined with (at least at the beginning) democratic institutions and procedures (like selection of the king), not less significant for the whole socio-political system’s operation.

So, it does look like it is impossible to measure degrees of homoarchy and heterarchy in a society with mathematical exactness, for example, in per cent. A purely quantitative approach is also inapplicable here: The presence of, say four hierarchies in a society as an entity does not mean that it is less homoarchic and more heterarchic compared to a society with five hierarchies if in the former there is and in the latter there is no one dominant hierarchy. The pathway to evaluation of a society as heterarchic or homoarchic (in either absolute or relative categories) goes through an analysis of it as a whole — as a dynamic system of social hierarchies, and the aim of this analysis in the vein of systems theory (see, e.g., Hill, 1977; Collins, 1988: 45-76; Dupuy, 1996; Laszlo, 1996: 95-126) should be not to count the hierarchies but to understand the way they are related to each other.

Hence, the question which rises at studying a particular society is as follows: Are the hierarchies that form the given social
system ranked (more or less) rigidly or not: Do, say, two individuals find themselves ranked toward each other the same way in any social context or not? For instance, in the exemplary heterarchic society of the Pathans of the Swat valley in Pakistan as it was described by Fredrik Barth (1959), a man could occupy not identical positions in the hierarchies of three intersecting main frameworks of social organization: Territorial divisions, casts, and patrilineal descent groups, supplemented by a significant number of free-choice associations based on neighborhood, marriage and affinity, political and economic clientship, etc. So, a Swat Pathan X could be superior to his compatriot Y in one social context and inferior or equal in another. On the other hand, before the abolishing of serfdom in 1861, a Russian serf by no means could be regarded as equal (and furthermore superior) to a nobleman, as a soldier cannot but be inferior to an officer.\(^2\) In the meantime, at the level of the theory we are fully agree with Gary Feinman (1996: 189) that though “anthropologists have long discussed a range of social mechanisms that integrate people both through horizontal (more egalitarian) and vertical (more hierarchical) links,” only “ongoing comparative investigations should help place these diverse social arrangements in a broader diachronic context.”

Probably, one day it will become possible to make a scale of socio-political forms in accordance with the degree and the way homoarchy and heterarchy are interrelated within their general frameworks. I am sure this is a task worth fulfilling, but also have to confess that at the moment I do not feel able to propose a proper criterion or a combination of criteria for such scaling, though there is no doubt that they should be qualitative rather than formal — quantitative. In any case, the purpose of the present paper is much more modest and limited than this task’s fulfillment presupposes.

What I am ready to argue now, is that the division into homoarchic and heterarchic cultures, although by no means rigid and absolute (as it has been stressed above), is nevertheless a permanent fact of human social history, observable on all the levels of structural complexity from the history’s very start and even from the preceding time: The division into homoarchic and heterarchic is possible (and is made — into “despotic” and “egalitarian”) already with respect to associations of the non-human primates (e.g., Matsumura, 1999; Butovskaya, 2000), so it may well be rooted in the deep prehistory of the humankind. Among the simplest cultures known to archaeology and anthropology — those of non-specialized hunter-gatherers, the homoarchy — heterarchy division is reflected in the notions of “non-egalitarian” and “egalitarian” societies respectively (e.g., Woodburn, 1982).

So, the generally heterarchic societies are by no means a priori inferior to generally homoarchic as, contrary to the still influential unilinear evolutionary schemes (e.g., Service, 1971/1962; 1975; Fried, 1967, 1970/1960), the degree of political centralization and social stratification’s rigidity are improper criteria for defining the overall developmental level (see Bondarenko, 2000, 2006; Bondarenko & Korotayev, 2000c; Bondarenko, et al., 2002; Korotayev, et al., 2000)\(^3\). Furthermore, in the course of its history a society can not just change its internal organization from generally homoarchic to heterarchic or vice versa (Crumley, 1987: 164-165; 1995: 4; Berezkin, 2000; Beliaev, et al., 2001: 380-381; Bondarenko & Korotayev, 2000c; Bondarenko, et al., 2002: 57; 2003: 6-7), but it happens not infrequently without a change of the overall level of structural complexity (e.g., Crumley, 1995: 4; Beliaev, et al., 2001: 380-381; Bondarenko, et al., 2002: 57; for just some of really abundant, in both temporal and special respects, examples of that sort of transition, see, e.g., Leach, 1954; Miscattiet al., 1991; Korotayev, 1995; Levy, 1995; Kowalewski, 2000; Kradin, 2000; Dozhdev, 2004). Finally, even cultures of the same complexity level and principle of socio-political organization may, and do, vary in their actual forms.

So, I hope that the idea of homoarchy may serve as a useful counterpart to that of heterarchy within the prospective broad theoretical framework, the significance of the heterarchy conception for which has already been recognized by not so few (though far from all) social scientists. In particular, Wenke (1999: 335) emphasizes with reference just to the Crumley’s conception of heterarchy that “[i]t is important to recognize, that not every society in history can be placed at some point on a continuum between a simple band of hunter-foragers and the dimensions of complexity... applied to, for example, ancient Mesopotamia.”\(^4\) Another archaeologist’s estimation is also worth quoting: “Importantly, heterarchy is not conceived as something less complex than hierarchy... Heterarchy is thus a useful concept for investigating the actual historical trajectories of social change, as it does not assume that societies evolve from simple to complex” (Sassaman, 2004: 232). (Naturally, both authors write about “complexity” in the purely archaeological and anthropological meaning of that notion).

Besides, also very importantly, I believe it is legitimate and even necessary to apply both notions — of heterarchy and homoarchy — to the social relations and societal structure in general, not to the power relations and institutions only. If we attempt at characterizing a society (or “culture” in the American cultural anthropologists’ thesaurus) as a whole, we must recognize what structuralists call “political system” as only one of its integral parts, in preindustrial cultures inseparably interpenetrable with all others, and hence should label the society according to its more general feature — the societal type.
More so, in this I see a possible key to understanding of (at least immediate) condition for this or that complex society’s homoarchic or heterarchic nature. As sociologists point out, “[e]ach subsystem of a society is characterized by its own form of stratification: Earnings and wealth in the economic sphere; privilege and power in the political system; moral worth and personal trust in religious and family life; and prestige and esteem in the occupational world” (Laumann, et al., 1970: 589). Hence, the more the subsystems are interpenetrable the less the criteria for general social ranking are diversified and applied to particular spheres of social life only. In other words, the more the subsystems are interpenetrable the higher probability that in any social context those being within it will be ranked the same way as in another one on the assumption of the value equally encompassing all the intertwined spheres of society. In this case the establishment of the homoarchic social order can be detected and fixed. It then looks logical that there were more homoarchic than heterarchic archaic (in the Jaspersian sense [Jaspers, 1953]) structurally complex societies: Just there under the conditions of “mechanic solidarity” (Durkheim, 1997) a sufficiently clear separation between social spheres is observed less commonly.

The excessive emphasis on the administrative system actually leads some scholars to, for example, confusing the absence of the “king” with the absence of any “hierarchical features” (McIntosh, 1999a: 77) or heterarchy with lack of autocracy due to division of power between the sovereign and collective bodies like councils or secret societies (McIntosh, 1999b: 9-16, 23) while, first, true autocracy in this sense is an exceptionally rare case in world history — even most authoritative leaders usually prefer to have some collective bodies, at least as a cloak for their actions (the Roman Senate in the time of Princepses and so forth), secondly, the true degree of a political system’s democracy does not depend on the formal political system too heavily (compare, e.g., the USA and the USSR with de jure democratic systems of political institutions in both cases), and thirdly, in many cases the real democracy or non-democracy of a political system may be a dependent variable with respect to democracy or non-democracy of the basic social institutions; in preindustrial societies and many contemporary non-Western countries — the family and community first and foremost (Bondarenko & Korotayev, 2000b; 2004; Korotayev & Bondarenko, 2000; Bondarenko, 2006: 89-101; Banny, 2003, 2004) (the type of which is in its turn related to, and may be dependent on, the type of subsistence, extensive agriculture and horticulture being generally more compatible with the homoarchic extended family [Nimkoff & Middleton, 1960; Osmond, 1969; Blumberg & Winch, 1972; Balkwell & Balswick, 1981; Lee, 1984]). The absence of autocracy and clear presence of some heterarchic features should not be confused with democracy and presuppose improbability of homoarchy. For example, when Pirzio-Biroli (2001: 52) argues that “[c]ontrary to the ancient Roman family, the African family is a democratic unit: In many respects the patriarch acts as a representative of the family council basing on a certain consensus achieved at its session,” he actually means just lack of autocracy. However, the extended family is not democratic, at least as far as the members of its council — all the nuclear families heads are, as a rule, not elected or, most often, even selected from a number of candidates but are recognized “naturally,” just the same way as they become the heads of their nuclear families.

Crumley herself clearly destines the notion of heterarchy exclusively to the study of the political sphere insisting just on “the addition of the term heterarchy to the vocabulary of power relations...” (1995: 3; emphasis added; see also, e.g., 2005: 36, 40-41) and sees the prerequisite for heterarchic socio-political organization in the diversity of sources of power, as far as her conception is concentrated precisely on the society’s political subsystem5. Discussing the “heterarchic state,” Crumley, in this respect, does not differ from the majority of contemporary more “traditionally” thinking theorists who “argue that the evolution of social complexity needs to be understood first and foremost as a political process” (Earle, 1994: 940) and also tends to look at the state, more or less exclusively, as at nothing more than a specific form of political organization. Such a glance at the state, multiplied by the general view at the problem of heterarchy and non-heterarchy as at referring basically to the forms of political organization, leads Crumley and her followers to unreasonable identification of heterarchy with the democratic political regime (Crumley, 1995: 3; 2005: 46-47) what, in my opinion, lowers the heuristic potential of her conception. Democracy as the political regime that exemplifies “the ideal representation of a power heterarchy” (Crumley, 1995: 3; original emphasis) must not be identified and confused with heterarchy as social system: In particular, the ancient Greek polis social framework, unavoidably heterarchic (Villet, 2005: 141-143; Mazarchuk, 2006: 44-46), admitted not only democratic but also viable aristocratic and oligarchic political forms.

Appraising heterarchy and homoarchy within a much broader framework of not only formally-political but first and foremost general societal types, as well as a clear understanding of the fact that the term “hierarchy” as the opposition to “heterarchy” is false as any society, including heterarchic, embraces a number of hierarchies and the crucial point here is the way they are intertwined, can also allow us to provide a due estimation for the fact that every hierarchy in a society is underpinned by a specific set of values. A society may be considered as homoarchic, in my terms, when there is one value which is central to all the hierarchies and not only integrates but also arranges in a definite pyramidal order all the other, secondary to it, values and hierarchies they underpin. Under such circumstances this value “encompasses” all the rest and makes the society “holistic” (Dumont, 1980, 1986), that is homoarchic, when the whole unequivocally dominates the parts as the supreme expression of that all-embracing and all-penetrable value. Although Louis Dumont’s vision of “purity” as the value (or idea) encompassing the holistic society in India, as well as in the wider Hindu world, is criticized nowadays (e.g., Mosko, 1994b: 24-50; Quigley, 1999), his theoretical contribution’s validity is nevertheless testified, for example, by the 20th century totalitarian societies in which, e.g., the idea of communism clearly did play precisely the role Dumont attributed to that of purity in the case of India. Examples from the so-called “traditional” societies may be provided as well: For instance, Benjamin Ray (1991: 206) argues that in clearly homoarchic precolonial Buganda (see, e.g., Wrigley, 2002) the encompassing “… majesty of the Kabakaship (the institution of the supreme ruler — the “king.” — D. B.) was made, not born. The Kabakaship… was a cultural creation, not just a political
product…” As the other Africanist, Jan Vansina (1992: 21, 24), generalizes, “Tropical African kingdoms... were products of an ideology more than of any other force... Tropical African kingdoms were truly built in the mind first, and were grounded in faith” (for an analysis from the same standpoint of the Ekie kingdom in southern Democratic Republic of the Congo see: Kopytoff, 1987: 91-99). Even in simple cultures socio-political homarchization could become the case by means of coming into the fore of ideologies based on the encompassing idea of all the society members’ fundamental division into those having and not having access to esoteric knowledge and the right to perform activities related to it (Bern, 1979; Artemova, 2000a, 2000b, 2003; Artemova & Korotayev, 2003).

However, the encompassment is not always immediately rooted in the realm of ideas as such; it may well arise from a religiously-ideologically biased conceptualization of preexisting social and political realities, as it happened with the idea of the “conical clan” — the make up (that distance from the senior line of descent from the common ancestor is the criterion of stratification) in Polynesia (e.g., Sahlin, 1958: XI—XII, 139-180). It may also be noteworthy at this point that among theorists of the chiefdom — the most prominent and, in many conceptions, the only possible type of the middle-range homoarchic society, the problem of initially (and even essentially) ideological or socio-political priority in encompassing all the respective cultures’ hierarchies is still very far from solution and remains a battlefield for anthropologists and archaeologists from different theoretical camps (vide stricto Earle, 1997; Beliaev, et al., 2001; Carneiro, 2002).

In any case, contrary to “holistic” (homoarchic) cultures, when “there is a multiplicity of ‘hierarchical’ or asymmetrical oppositions, none of which are reducible to any of the others or to a single master opposition or value,” “the… case immediately departs from the Dumontian formulation” (Mosko, 1994a: 214) — the society does not fit the homoarchic (or hierarchic in the Dumontian sense) model. In a (generally) heterarchic society one can expect to find positive evaluation of individualism in intellectual as well as social life (“ego-focused social systems” [White, 1995]) related to the emphasis on personal honor and dignity, importance of public opinion, high degree of social mobility and at least numerical prevalence of achieved statuses over ascribed ones. Normally, more heterarchy can be observed in the societies in which interpersonal face-to-face relations are of primary (or at least great) importance compared to depersonalized and formalized ones. This is typical of not only such paradigmatic examples of heterarchic cultures as the ancient polis and civitas or the Western countries from the time of Renaissance on, but also of many other cultures, probably less prominent though less significant for anthropological theorizing: The egalitarian hunter-gatherers (e.g., Gardner, 2000), “acephalous complex societies” of the mountainous areas — the Himalayas, the Caucasus and others (e.g., Leach, 1954; Kaziev & Karpeev, 2003), the tribal societies of Eurasia, Africa, and the Americas (e.g., Barth, 1959; Tait, 1961; Hickerson, 1962; Hamer, 1972), etc. Remarkably, according to Whiting and Childe (1953) the dependence training is associated precisely with extended families, whereas the respective socialization pattern tends to ensure the compliance in the performance of assigned tasks and dependence on the family, rather than reliance on oneself, which would tend to produce a personality type compatible with homoarchic rather than heterarchic sociopolitical systems (see also Bondarenko & Korotayev, 2000a).

So, the methodological discrepancy between the social sciences and the complexity studies is still there: In the sense accepted in the social sciences it is wrong to postulate that either heterarchy or homoarchy as a principle of culture’s organization presupposes a higher level of complexity. However, in terms of the complexity studies the conclusion must be different. Summarizing her previous research into the comparison of heterarchies and what she calls “hierarchies” (loosely corresponding to homoarchies) from the standpoint of their “advantages” and “disadvantages,” Crumley (2005: 43-44, 2007: 6-7; see also 2001; Barry 2007: 46) argues, e.g., that under “hierarchy” there are “clear decision making chain,” “political interactions few and formalized,” “political maintenance of the system is low” while under heterarchy the opposite situation is observed. This means that in terms of the complexity studies the heterarchic socio-political model is more complex than homoarchic: It is not less sustained but has a higher degree of non-equilibrium. In fact, symptomatically, the social scientists (the archaeologists) Timothy Pauketat and Thomas Emerson (2007), contradicting the traditional for the social sciences idea of the complexity degree’s equation to that of hierarchization, postulate that heterarchic societies are more complex than “hierarchical” (again, more or less equal to those called “homoarchic” in the present work) as far as “hierarchization” leads to simplification of many complexities of social life. However, the fortunes of real heterarchic and homoarchic societies differ tremendously (both within and across the macrotypes) due to a great variety of historical reasons, specific for any particular case.

Conclusion: Prospects of the problem’s solution

Notwithstanding the aforesaid, I admit, and even believe, that in some time the social scientists will be able to make more use of the complexity studies theories and modify their approach to cultural complexity. From my viewpoint the rejection of the older (for the social sciences) formulation of complexity shall not be the question. I suppose that borrowing of the formulation elaborated by the social complexity students can help diversify the anthropological-archaeological one by promoting the creation of a sort of an internal complexity scale within the wider scale of overall structural complexity levels. After creating it, the social scientists will maybe have reasons to argue that, for example, heterarchic middle-range societies are more complex than homoarchic middle-range societies, yet being at the same level of overall structural complexity. However, the problem of, at least as it seems to me now, incomplete compatibility of the social sciences and the complexity studies, not inevitable in the metaphysical sense but observable clearly at the present state of the art, does persist: For the former the global (comparative) aspect of the overall complexity level traditionally dominates the research, while for the complexity studies it turns out generally
insignificant, the students' attention being concentrated on the internal organization as its components' sustained non-equilibrium and on the way it is provided.

Notes


1. This dictum’s verity is confirmed explicitly by the authors of not a few works on an impressive variety of specific cultures, based on different kinds of sources — archaeological (e.g., Scarborough, et al., 2003), written (e.g., Reynolds, 1990), and first-hand ethnographic (e.g., Kammerer, 1998).

2. A regular army may serve as an ideal image of a generally homoarchic society and a real model of such a community. The rigid vertical division of service people by military ranks is its all-embracing organizational pivot and a pledge of effective functioning; individuals’ positions within the institution are replicas of their standings on the only scale of ranks that determines completely the spheres and limits of their obligations, responsibilities and rights. At the same moment, informal horizontal ties relate service people of the same or similar ranks establishing informal secondary hierarchies, for example, by vesting more respect in brave than faint-hearted soldiers, in talented rather than ungifted generals.

3. As Elizabeth Brumfiel wrote only a dozen years ago (1995: 130), “The coupling of differentiation and hierarchy is so firm in our minds that it takes tremendous intellectual effort to even imagine what differentiation without hierarchy could be”. Usually if the very fact of complex heterarchical societies’ existence is recognized (as for example, within the holoculturalist framework), it is considered as an historical accident, anomaly; such cultures are declared incapable to achieve high levels of complexity and internal stability (Tuden & Marshall, 1972: 454-456).

4. To be sure, the heterarchy conception is not the only one in the social sciences that treats, from this or that theoretical premise, the problem of “vertical” and “horizontal” complexity (vide stricto Johnson, 1982; McGuire, 1983). However, just this conception, first, seems to be the most keenly elaborated among them by now (probably, except the “dual-processual theory” of Blanton et al. [e.g., 1996]) and, secondly, as to my knowledge, adepts of no other one of them have ever made attempts to establish a link between the understandings of complexity in the social sciences and complexity studies.

5. However, Crumley does see power relations (heterarchic and otherwise) not as “a thing in itself” but in their interaction with, and dependence on the social, mental (value system), and ecological milieu, and legitimately builds her conception on these foundations.

References


Emergence: Complexity and Organization 10


