Social Science Information

http://ssi.sagepub.com

The shoulders of our giants: Claude Lévi-Strauss and his legacy in current anthropology

Albert Doja

Social Science Information 2006; 45; 79
DOI: 10.1177/0539018406061104

The online version of this article can be found at:
http://ssi.sagepub.com/cgi/content/abstract/45/1/79

Published by:
SAGE Publications
http://www.sagepublications.com

On behalf of:
Maison des Sciences de l'Homme

Additional services and information for *Social Science Information* can be found at:

Email Alerts: http://ssi.sagepub.com/cgi/alerts

Subscriptions: http://ssi.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

Albert Doja

The shoulders of our giants: Claude Lévi-Strauss and his legacy in current anthropology

Abstract. *In the course of anti-structuralist criticism, the main thrust of Lévi-Strauss's epistemological approach seems to have been lost, to the collective detriment of social sciences and anthropology. By its monumental character, Lévi-Strauss's work evokes that of the founders of anthropology, whereas, by the way in which it puts in relation the cultural and the mental, it anticipates a theoretical anthropology to come, with the ambition of providing a rigorous method that comes close to scientific knowledge. The fundamental point remains the emancipation of the structural approach from the linguistic model and its orientation toward a new context of science and technology, as exemplified in mathematics, information science, cybernetics and game theory, which made it possible for structural anthropology to innovatively account for the social systems and praxis of competitive and strategic practices.*

Key words. *Anthropological theory – Claude Lévi-Strauss – History of anthropology*

Résumé. *Au cours du criticisme anti-structuraliste, l'objectif central de l'approche épistémologique de Lévi-Strauss semble avoir été perdue au détriment collectif de l'anthropologie et des sciences sociales. Par son caractère monumental, l'œuvre de Lévi-Strauss évoque celle des fondateurs de l'anthropologie, alors que par la façon dont elle met en rapport le culturel et le mental, elle anticipe sur une anthropologie théorique à venir, avec l'ambition de fournir une méthode rigoureuse d'investigation anthropologique proche du savoir scientifique. Le point fondamental reste l'émancipation de l'approche structurale hors du modèle linguistique, vers un nouveau contexte scientifique et technologique illustré en mathématiques, sciences de l'information, cybernétique et théorie des jeux, qui permet à l'anthropologie structurale*

Social Science Information © 2006 SAGE Publications (London, Thousand Oaks, CA and New Delhi), 0539-0184
DOI: 10.1177/0539018406061104 Vol 45(1), pp. 79–107; 061104

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

de rendre compte de façon innovatrice des systèmes sociaux comme de la praxis des pratiques compétitives et stratégiques.

Mots-clés. *Claude Lévi-Strauss – Histoire de l'anthropologie – Théorie de l'anthropologie*

If I have seen further, it is by standing on the shoulders of giants.
(Isaac Newton, 1676)

Introduction

It is sometimes claimed that A.R. Radcliffe-Brown and Bronislaw Malinowski more or less single-handedly created modern anthropology. This may have seemed to be the case in the mid-20th century, when Boasian American anthropology had diverged into many specialized strands and Marcel Mauss's students had not yet made their mark in French anthropology. British kinship studies seemed, in contrast, to rest securely on a method invented by Malinowski and a theory developed by Radcliffe-Brown, as an established "science of society". Major changes took place in anthropology during the 1950s and 1960s, economics and politics were reconceptualized, and new theories of symbolic meaning transformed the discipline. As Eriksen and Nielsen (2001: 95) put it, developments in North America and Britain differed, although the problems raised were similar; yet the single most important theorist was French.

If, already in the first post-war years, Claude Lévi-Strauss emerged as an exemplary thinker, as the most important figure in the history of anthropology and as the "ecumenical", "paradigmatic anthropologist" (Diamond, 1974) of the second half of the 20th century, this implies a good deal about the intellectual milieu of our time and of anthropology in particular. In the 1950s and 1960s, for a number of reasons, not the least of which was Lévi-Strauss's astute promotion of his discipline (Johnson, 2003: 29), anthropology became one of the essential references of French intellectual discourse, adopting part of the mainstream of ideas defined as structuralism, which had the ambition of providing social sciences with a rigour and power comparable to those of the natural sciences.

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

In a first essay on the "advent of heroic anthropology in the history of ideas" (Doja, 2005), I showed that, while Lévi-Strauss's structural anthropology was a reaction against the predominantly phenomenological bias of French philosophy in the post-war years as well as against the old humanism of existentialism, which seemed parochial both in its confinement to a specific tradition of western philosophy and in its lack of interest in scientific approach, the paradigm of structural anthropology cannot be equated with the field of structuralism, which became a very contestable form of intellectual fashion. Structural methodology played an essential role in the development of Lévi-Strauss's ideas, and it is impossible to overestimate the contribution of linguistics to structural anthropology. The basic principles are relatively simple, and can be illustrated by examples taken from any language: the unconscious nature of the rules underlying linguistic utterances, the arbitrariness of the sign, and the differential and combinatorial basis of meaning. These points constitute the vulgate of structuralism as it was disseminated in the 1950s and 1960s, and even as it is still taught today.

In this article I want to show that for Lévi-Strauss structuralism was only the narrow framework of a brilliant venture. Essentially, his work is at once more modest, more scrupulous and much more relevant for anthropological knowledge, even if the style remains a baroque mixture of equilibrium and witty liveliness. Although structuralism may once have had a beneficial role, it has become an obstacle to the full development of ideas for which anthropology is after all indebted to Lévi-Strauss. His approach came less from general principles than from a demanding and audacious intellectual attitude. Thanks to this attitude and a number of deep intuitions, theoretical work offered him the appealing opportunity to look for order within chaos and to make a very general and at the same time very personal contribution to anthropology.

Structural models

Lévi-Strauss is a systematic thinker, a constructor establishing in sequence, step by step, the different conceptual building-blocks that were to make up the edifice of structural theory in anthropology. In itself, the heuristic closure of Lévi-Strauss's procedures seems unexceptionable and could be taken to be a necessary part

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

of any process of demonstration aspiring to any degree of rigour. This makes some to believe that in Lévi-Strauss's work the hypotheses he advances are closed and self-validating to the extent that, through their own forward momentum, they have become increasingly independent of any external instance of validation (Johnson, 2003: 186). The structural unconscious called upon by Lévi-Strauss to avoid the pitfall of subjectivism did not seem to have been a great help for some critics, who have taken it as a simple "construct" of a theoretical fiction (Steinmetz, 1984). In fact, whereas his hypotheses seem to function as a kind of rhetorical stepping-stone, permitting him to proceed to the next stage of his demonstration in what seems to be essentially a one-way process, Lévi-Strauss never ceased basing his approach not only on the fertility of his own intuitions but also on the obvious relevance of the results obtained, making use of his method more as a very flexible guide for his investigations than as a mechanical recipe that would be an end in itself.

The result is that the body of Lévi-Strauss's thought has grown through the analysis of a number of thematic concepts (kinship structures, totemism, myths) and a process of accretion and accumulation of a number of implicitly accepted positions related to operating concepts such as the deep-level determination of the principle of reciprocity, the combinatorial and oppositional nature of human cognition, and the essentially homeostatic function of social institutions and representations. The operating concepts, evident in their context of use but difficult to understand in their own right, typically constitute a source of questions and debates among commentators and critics.

As Lévi-Strauss believed that linguistics was the only discipline in the social sciences and humanities to have achieved a level of analytical consistency comparable to that of the natural sciences, his ambition was to introduce a similar degree of rigour into the discipline of anthropology. But this is a fact of historical relevance rather than theoretical nature. From a theoretical point of view, to concentrate exclusively on this influence leads to a rather one-dimensional picture of Lévi-Strauss's thinking, especially of how he came to conceptualize myth. To begin with, when he stated in his essay "Language and the Analysis of Social Laws" that the results of his analysis "can be achieved only by treating marriage regulations and kinship systems as a kind of language" (1958d [1951]: 69 [61]),[1] it was not altogether clear that this represented nothing more than a simple analogy.

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

Certainly, in the formulation of the paradigm of matrimonial exchange, the linguistic model played an undeniable role. On the methodological level, the main project, the isolation of a small number of elementary invariant structures from which the diversity of observable kinship structures might be derived, is directly inspired by the work of Roman Jakobson and Nicolai Trubetzkoy in phonology. On the conceptual level, the notion of the unconscious operation of social norms is construed by analogy with the implicit rules of language. The analogy had already been well established in anthropology since Franz Boas at least, to whom Lévi-Strauss refers, but he clearly also has in mind more contemporary developments in linguistics (Lévi-Strauss, 1967 [1949]: 126–7 [108–9]). Further, the linguistic model is not mentioned in the conception of agent and object of exchange as arbitrary and differential signs, but the argument that women are as much signs as values and the differential variation of marked/non-marked between givers and takers are both clearly based on the linguistic concept of binary opposition. Finally, the idea of culture-specific socialization of individuals as the regressive selection and combination of universal traits is compared with the process of language acquisition.

Yet, although inspired by structural phonology, Lévi-Strauss proposed a completely new method to explain the mechanisms of symbolic and social systems. Essentially, it is the model of exchange, Marcel Mauss's *Gift* (1950) to Lévi-Strauss, as Harris (1968: 484) punningly put it, which is seen to be more important to the theoretical infrastructure of *The Elementary Structures*. Giving to others, an act that necessarily generates a debt, has the effect of creating social relationships by making it possible to renew and perpetuate them; it is an act on which the very functioning of the social order is based. Exchange is the mechanism underlying different rules of marriage exogamy: this is the positive aspect of the incest prohibition, seen as the primary and archetypal agent of social cohesion, representing the passage from "nature" to "culture", from the indifferent biological relation of individuals to their social relation. Without this properly dialectical sublation of the natural within the social, society could not exist. Once men are forbidden to enjoy their own women but must exchange them for others, they are forced to set up a system of exchanges, which provides the basis for the organization of society.

In this sense, J.P.B. Josselin de Jong (1952: 58) was correct in asserting that the methodological principles of *The Elementary*

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

Structures of Kinship are clear without reference to linguistics, while Dan Sperber (1982: 94) argues that the assimilation of kinship systems to language must be understood rather as a complex metaphor grounded on, at the very least, a kind of dubious synecdoche. This metaphorical relation between kinship and language is probably accompanied by a procedure of a metonymical order, but Lévi-Strauss never regarded himself "as bound by grammarians' refinements" (cf. 1962b: 271–2 [205]).

The linguistic model, normally considered to be the essential component of structural anthropology, is met by the exchange model only in response to the question of the origin of universal mental structures such as reciprocity, in Lévi-Strauss's subsequent generalization of the principle of reciprocity under the heading of communication. Although Lévi-Strauss mentions Jakobson's "inspiration" in the preface of the book, the linguistic model is only fully acknowledged in the final chapter, where he attempts to bring together the different components of his theory into a coherent statement of method, which provides the underlying rationale for the whole work.

The language analogy must be interpreted ultimately as a methodological hypothesis. Basically, as Johnson (2003: 59–60) summarizes it, there are two models which form the conceptual backbone of *The Elementary Structures*. The first and most important, Mauss's model of exchange, comes from within sociology; it is a ready-made construct that Lévi-Strauss adopts and adapts. The second model is extraneous to sociology proper, though it does come from linguistics, which Lévi-Strauss has perhaps rather tendentiously designated as another social science. So whereas the Maussian model of exchange might be qualified as a "first-order" model, since it is derived from the observation and comparison of diverse social phenomena, the linguistic-phonological model would be a "second-order" model in so far as its primary object is not the social but a subset of the social, albeit a significant subset.

Yet, while Lévi-Strauss's application of the first model is restricted to a single, basic function of social systems – reciprocity and exchange – the second, in addition to the methodological inspiration it provides, is applied to different levels of those systems – unconscious norms, exchange between formally differentiated partners, psychological development and culture-specific socialization. In effect, what is a superposition of two models is presented by Lévi-Strauss as a fundamental identity. Instead of keeping the two

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

domains separate, Lévi-Strauss is intent on combining them into a unified theory of social communication in order to obtain from language a "logical model" with which to study the communicative features of social life. In suggesting this interpretation, he was not saying that culture derives from language or that language and culture can be substituted for or reduced to each other, nor was he trying to correlate language and behaviour. For Lévi-Strauss, there are two parallel ways of categorizing the same data of both linguistic and social structure into homogenous and formalized expressions of constituent units organized into a single system.

> Language can be said to be a condition of culture because the material out of which language is built is of the same type as the material out of which the whole culture is built: logical relations, oppositions, correlations, and the like. Language, from this point of view, may appear as laying a kind of foundation for the more complex structures which correspond to the different aspects of culture. (Lévi-Strauss, 1958e [1953]: 78–9 [68–9])

Placed before the impossibility of solving the question of the priority relationship between these two symbolic systems, Lévi-Strauss quite simply made this interrogation irrelevant by showing that it is useless wanting to establish any precedence whatsoever between the institution of marriage and verbal language. Their relationship is not causal, one is neither previous to, nor the origin or the occasion of, the other. The necessary methodological affinity is possible precisely because, according to Lévi-Strauss, the "reality" treated in both cases is not as different as one might expect, in that both "language and exogamy share the same fundamental function of communication and social integration" (1967 [1949]: 565 [493]). Their relation is metaphorical, in the sense that both have an identical operating mode, "a similar architecture" that is the mark of the same energy or fundamental dynamics, which is that of the mind at its unconscious level. The implicit line of reasoning, as Johnson (2003: 57–8) pointed out, appears to be that the ultimate basis of the principle of reciprocity resides somewhere in the deep structure of the human mind, and that language, the essential medium of social intercourse, is equally the product of deep-level determination. Therefore, by virtue of their coexistence or continuity at the level of deep structure, it is logical and valid to assume the identity of the two from the more general perspective of communication.

For Lévi-Strauss it is important to elucidate the problem of the signifying system whose production must have caused, simultaneously, that of society. Thus the linguistic model, more than

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

being simply a model applicable to certain social phenomena, is a necessary model in that its primary object (language) shares the same mental continuum as its secondary object (social relations). Lévi-Strauss explicitly formulates this idea of a continuity of functions in his article "Linguistics and Anthropology" (1958e [1953]), in which he views language and culture in co-evolution as two parallel modalities of a more fundamental activity of the human mind, which must make them formally and functionally analogous.

In the context of the development of Lévi-Strauss's thought between the late 1940s and the early 1950s, his attempt at grafting the linguistic-communicational model onto the model of exchange, combined with his preoccupation with the psychological dimension of reciprocity, allowed him to argue for the symbolic nature of social institutions. The collective constructs which mediate relationships between the different members of a community are symbolic to the extent that their construction is a matter of arbitrary convention and that they together form a system in many ways independent of the lower levels of social infrastructure. If one accepts this definition of society, then it follows that the same methods of analysis developed in structural linguistics are applicable to different aspects of social life. According to the conception defended by Lévi-Strauss from the start in his *Introduction to the Work of Marcel Mauss* (1950), all social productions are symbolic systems. In this sense, structural analysis is an intellectual tool and a scientific method that enabled Lévi-Strauss to pass in the 1960s, without significant interruption, to his second area of specialization. However, within the broader area of the anthropology of social classifications and symbolism, Lévi-Strauss's conception of myth came to owe almost nothing to the phonological model of language.

From the start, with the inaugural text on the "Structural Study of Myth" (1958g [1955]) or the "Gest of Asdiwal" (1973a [1959]), Lévi-Strauss subjected myths to the same structural analysis of which he imported the model from linguistics, and more precisely from phonology, and which he brilliantly applied to the study of kinship systems. Yet his interpretation of the nature and function of myth cannot be understood with reference to the linguistic model alone. If we move from the question of the nature of myth to that of its function, then again the linguistic model can give only a limited and partial response. To say that the myth is a kind of second-order language, as Roland Barthes (1993 [1957]) argued, may

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

suggest how one might approach its analysis, but it does not tell us what the myth is for. Moreover, the logic of the group of transformations and their mediating function, which has been represented by what Lévi-Strauss refers to as a "canonical expression" that articulates a dynamic homology between meaningful elements and allows apprehending the dynamism of structure through its transformations, is linguistically indefensible and even inconceivable at the phonological level.

When Lévi-Strauss introduced the canonical formula of myth (1958g [1955]: 252–3 [228]), he did not relate it to the linguistic model. On the contrary, from the first volume of the *Mythologiques* cycle, he made an astonishing attempt, fully articulated in the last volume, to come out into the musical model. He called upon music as a model of both exposure and interpretation, as a more appropriate means of stating what the linguistic and semiological conception of myth did not allow him to formulate explicitly. On the one hand, Lévi-Strauss asked that myths be read vertically according to their various codes like a musical score, but more particularly he explains why myths, like music, cannot be transposed into something else. If a myth is made explicit in a variant, like a musical theme in a development, "the myths are only translatable into each other in the same way as a melody is only translatable into another which retains a relationship of homology with the former" (1971: 577 [646]). Like myth, indeed, "the musical work, which is a myth coded in sounds instead of words, offers an interpretative grid, a matrix of relationships" (1971: 589 [659]), whose speculative effectiveness Lévi-Strauss showed in the case of Maurice Ravel's *Bolero*. No more than mythic thought, "It is inconceivable that there should be any musical work that does not start from a problem and tend towards its resolution" (1971: 590 [660]). The general formula of myth, more precisely, echoes the art of the fugue. It corresponds to the famous *Spiegelbild*, or "mirror play", that fascinated European composers until Johann Sebastian Bach.

While shifting the meaning of myth or that of music from the signified they contain to the signifying framework that orders them, Lévi-Strauss makes it possible to determine a "real focus" for them. Music and myths cannot be reduced to a system of significances; they must be received in their own order, that of the operations induced by their own forms. The mirror play takes the place of the ultimate signified of both music and myth.

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

> Any myth confronts a problem, and it deals with it by showing that it is analogous to other problems, or else it deals with several problems simultaneously and shows that they are analogous to one another. This mirror play, this set of images and reflections which mirror each other, never mirror a real object. (Lévi-Strauss, 1985: 227 [171])

This is why the analyst must confine him- or herself to an exposure which will reveal the mythical devices in the manner of an orchestra conductor reading the score and leading its execution. It is thus not a question of making available some meaning but of carrying out an operation. In the same way, the reader is invited to let him- or herself be "carried toward that music which is to be found in myth" (Lévi-Strauss, 1964: 40 [32]).

An expansive scientific approach

Lévi-Strauss's methodological closure may consist in a relatively limited range of responses and default positions, in a kind of cross-categorical application of different models of analysis and replication of methodologies, which are part of his constant appeal to unify the different parts of his system and ensure its overall theoretical coherence (Johnson, 2003: 186–7). Yet in a way Lévi-Strauss's work is also, as Geertz (1988: 32) put it, organized neither linearly in a progress of views, nor quantumly in a series of discontinuous reformulations of a fixed and single view, but centrifugally, as a virtual analogue of his own kaleidoscopic image of "concrete thought".

In this sense, its overall meaning is well constructed in a syntactic conjunction of discrete elements by projecting the analogue axis of paradigmatic substitutions played out vertically along what Jakobson (1981 [1960]) called the plane of similarity, or "metaphor", onto the digital axis of syntactic combination played out horizontally along what he called the plane of contiguity, or "metonymy". This makes Lévi-Strauss's whole *oeuvre* look like a metonymically adjoined poetic text. This is a model of analysis where any aspect analysed stands side by side with the others, where the meaning of the whole lies, in good structuralist style, in the conjunction rather than in the parts conjoined, as if the syntax of syntax, the enclosing form, were abstract enough to represent or govern the whole.

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

So it is that, while both the linguistic and musical models may go some way to explaining the combinatorial and differential nature of myth, Lévi-Strauss's analytical approach to myth needs to be read in the context of the ambient science and technology of the period, as exemplified in mathematics, information science, cybernetics, game theory and catastrophe theory, even though, to a great extent, the informational paradigm, which Lévi-Strauss claimed held much promise for the social sciences, especially in the case of his own speculations on the possibilities of formalization in anthropology, is in fact mediated through linguistics, as he showed in his early article, "Language and the Analysis of Social Laws" (1958d [1951]).

As Lévi-Strauss moved into his second area of specialization, the structural analysis of myth, information theory was at least of equal importance to linguistics in terms of how he conceptualized his object of study. His "linguistics of culture", as Leach (2000) termed it, strongly reflected the techniques and logical presuppositions of information theory and linear programming. Thus Lévi-Strauss came to be considered as part of that important intellectual movement known as the cognitive revolution, to the extent that structural analysis showed that myths and behaviour patterns store and transmit vital information just as electronic circuits do in the computer.

An important aspect of Lévi-Strauss's procedure for analysing myth is not to consider a single, supposedly more "authentic" version of a given myth but instead to take the myth as a virtual construct, as the ensemble of its variants (1958g [1955]: 240–2 [217–18]). This methodological approach owes much more to information theory than it ought to linguistics, as Johnson showed in several chapters of his book on Lévi-Strauss's "formative years" (2003). The informational model provides a number of concepts which are equally essential to Lévi-Strauss's analysis of myth, such as message, coding, noise, redundancy, statistical distribution and, more importantly, entropy. The second law of thermodynamics states that entropy, that is, the degree of disorder or disorganization of a closed system, increases with time. Stated in informational terms, this means that the message of a structure can lose order in the process of transmission but can never gain it. If myth is a "language", it is also more generally and more essentially encoded information, and the process or principle of repetition in mythic narratives may be compared with the basic principles of information theory.

The myth is a "message" whose content is not contained in a single transmission, so to speak, but distributed across a range of

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

separate transmissions in related myths. This is to treat myth as a kind of "time series". The message of myth is a discrete or continuous sequence of measurable events distributed in time, precisely what statisticians call a time series, which connects with processes whereby a reasonably large sample is representative of the sequence as a whole. Inspired by cybernetics and communication theory, Lévi-Strauss illustrated this notion of the statistical reconstitution of information with examples taken quite appropriately from the domains of distributive optics (1958g [1955]: 242 [218]) or telecommunications (1966: 106 [127]). So even though the time series that is myth is fragmentary, it is possible to reconstitute its message through a statistical treatment of a limited number of its variants. Whatever the degree of distortion or noise to which the mythic "signal" is subjected, it is possible, in principle, to eliminate entropy and reconstruct more or less accurately the original message. Lévi-Strauss expressed this possibility of recuperation in explicitly informational terms:

> The second law of thermodynamics is not valid in the case of mythic operations: in this field, processes are reversible, and the information they convey is not lost; it is simply converted into a latent state. It remains recoverable, and the role of structural analysis is to look beyond the apparent disorder of phenomena and to restore the underlying order. (1971: 190 [216–17])

The analyst of myth is compared to an external observer attempting to reconstruct a given message or reality, in so far as he or she is not the primary destination of the message but the interceptor of a message intended for another. In fact, in its original context, the coded information of myth could be seen to have a cybernetic function, to the extent that it is a "looped" message from a given society to itself, a message distributed over time and space, with no locatable centre of enunciation, a kind of meta-discourse whose function, according to Lévi-Strauss, is the regulation and resolution of contradictions (1958e [1953]: 254 [229]).

In addition, the origins of Lévi-Strauss's notion of society as communication and his initial optimism regarding the possible formalization of social behaviour from this perspective seem directly reminiscent of the instrumental approach to knowledge, consistent with the cybernetic problem of the design of machines as the concrete embodiment of logical processes. In fact, it seems that the very notion of human mind, as Lévi-Strauss understands and uses it, originated in Wiener's (1948) reflections on the limitations of logic and on the possible applications of cybernetics, which are

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

reducible in the final instance to the workings of the human mind. In particular, Lévi-Strauss's analysis of myth is operational to the extent that myth is seen as a working model of specific processes of human thinking. His presentation of the *Mythologiques* sequence is a kind of extended experiment, whose "laboratory" is the geographical zone covered by the two Americas, the ultimate goal of the experiment being to uncover the inner logic of the human mind.

In the course of the argument, Lévi-Strauss seeks to demonstrate that successive variants of a myth cannot be discarded as irrelevant; the sum of related narratives is a living aggregate, a code of cultural reinterpretation in which single elements are regrouped and not lost. The analogy is that of mathematical topology studying relations that remain constant even when configurations change. Any complex entity, from social or kinship relations to culture and civilization, art, technology, totemic systems, myth and scientific knowledge, is treated as an ensemble of traits or elements subject to specific rules of combination, which are reduced to a series of oppositional relations, following a model of analysis taken from both linguistics and information theory.

Whereas Lévi-Strauss's description of the genesis of a system shows the passage from the discontinuous to the continuous, using notions from physics and chemistry such as "precipitation", "crystallization" or "coalescence" of previously disparate elements, his resolution of conflicting or hierarchical relationships into relations of complementarity or reciprocity is linked to the more general notions of mediation, regulation and homeostasis, or negative feedback, taken from Durkheim's theory of social cohesion, Mauss's theory of reciprocity, and cybernetics. The relationship between discrete complex systems, whether these are social, cultural or mythic systems, is further seen as a relation of transformation, according to a model of conceptualization grounded in new mathematics, biology and catastrophe theory.

Lévi-Strauss's mathematical perspective is also common to Piaget, Chomsky and other thinkers who adopt the mathematical notion of "group"; but the originality of Lévi-Strauss's contribution must be seen in the analytical insight and methodological leverage he derives from these notions, for instance, in the description of the historical development of a complex system, the notion of whether conscious or unconscious choice from a repertory of virtual paths of development is conceived parallel to the notion of chance or play in the development of stochastic systems randomly determined.

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

The fundamental point remains the emancipation of a structural approach from the linguistic model, that is, the passage from a semiology centred on the sign to what we may call a "general agonistics", a term Jean-François Lyotard would use to describe the language games of the *Postmodern Condition* (1979: 23), but understood here as a game theory of social systems and as a praxis of competitive and strategic practices. The notion of game, the full significance of which went unperceived by critics, is aimed at the intelligibility of praxis, thus enabling anthropology to attain a new form of rationality. Just as it proved to be necessary to go beyond the semiotic level in resolving the question of the anteriority or posteriority of matrimonial language with respect to articulated language in the fact of the passage from nature to culture, it was no less pressing to go beyond the conscious level in order to resolve the epistemological dilemma of dualism between subject and object. It is precisely the theoretical issue of game and rules that outlines an overcoming of this much-debated opposition.

Lévi-Strauss constructs his scientific work through the distinction of the contingent and the necessary, which is also that of event and structure. In this construction, the parataxis forcefully underlines the discontinuity and rupture that symbolically express the catastrophe. Much more, the development of some new and invigorated trends of structural paradigm, subsumed in Lévi-Strauss's concept of canonical expression, which lends itself as the regulating principle of the structural and morphodynamic epistemological project (Scubla, 1998; Maranda, 2001), already shows the opportunity for a renewed ethnography which makes a better use of hypothetical and deductive reasoning, reflexivity and the translatability of mutually convertible codes relating to empirical cross-cultural and borderland realities. The theoretical project inspired by the canonical formula can show that structural anthropology is also intimately concerned with processes of social conflict, change, praxis and agency, which seems to be a neglected but essential aspect of Lévi-Strauss's theory.

The scope of anthropology

With Greek and Roman thinkers as background, the philosophers of the Renaissance and the Enlightenment carved out positions that continue to serve as points of orientation today. Descartes

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

took a strong mentalistic position, arguing that the mind operates according to its own principles and comes stocked with innate ideas. Echoes of this perspective are to be found in the writings of Noam Chomsky and Jerry Fodor, self-identified nativists. The British empiricists, led by Locke, took an opposing perspective, according to which the mind is initially a blank slate, experience etches ideas onto the slate, and these ideas become associated with one another. Behaviourists in the 20th century, like the Russian physiologist Ivan Pavlov and the American psychologists, or "learning theorists", from B. F. Skinner to Jerome Bruner and Howard Gardner, subscribed to this empiricist point of view.

In the 18th century, a new perspective took hold. Immanuel Kant described the basic epistemological categories, such as time, space, number and causality, which human beings necessarily impose on their sensations and perceptions. Individuals do learn from experience, but that experience is necessarily apprehended in temporal, spatial and causal ways. The Kantian problematic had a great effect on the research programme of the 20th-century developmental psychologist Jean Piaget, who sought to describe the development of these categories of experience in infants and young children. Already Jean-Jacques Rousseau, Piaget's countryman and Kant's contemporary, discerned genius in the mind of the child and believed that knowledge should be allowed to unfold within, rather than be imposed didactically upon, the child.

Kant had already accorded great importance, in the work of Rousseau, to what announced the possibility of a reconciliation of nature and culture by means of "practical reason" as an alternative source in a world which needs rules of natural law but cannot derive that law from nature (Cassirer, 1954). In so doing, Rousseau must have articulated the core concern of 20th-century anthropology, and in Lévi-Strauss's (1973b [1962]) vision the second *Discourse* is without a doubt the first anthropological treatise in French literature. Indeed, in almost modern terms, Rousseau posed the central problem of anthropology, namely, the passage from nature to culture: "The object of this Discourse is exactly to pinpoint that moment in the progress of things when, with right succeeding violence, nature was subjected to the law" (Rousseau, 1969 [1755]: 62 [77]).

To be sure, an enormous influence was also exerted by the rise of evolutionary thinking, emanating chiefly from the insights of Charles Darwin, who stressed the continuities between human beings and

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

other animals, and the importance of mental capacities that allowed individual organisms to survive until reproduction. As soon as the implications of Darwin's writings became clear, his way of thinking came to dominate both the theories and the empirical work of scientists interested in learning and culture. The first generation of modern scholars did not shrink from attending to the more complex forms of reasoning in human beings and other primates. But beginning in the early 20th century, the territory was largely ceded to those researchers who stressed continuity across the animal kingdom, avoided issues of language, consciousness and higher-order ratiocination, and strove to explain any intellectual achievement in the most parsimonious and reductionist fashion.

Indeed, this approach, fashioned in the writings of evolutionary psychologists and genetic behaviourists, might still hold sway today had it not been for the development of high-speed computers and the complex programs that have permitted these electronic entities to compute and solve various kinds of human-scale problems. Once it became clear that computers could mimic human thought processes and, in the view of many, bootstrap themselves over time to a higher level of performance, scientists could no longer withhold such intellectual competences from human beings. Thus was born the cognitive revolution, an important intellectual movement among whose forefathers were the computer scientists Herbert Simon and Marvin Minsky, the psychologists George Miller and Jerome Bruner, the linguist Noam Chomsky and the anthropologist Claude Lévi-Strauss. The cognitive revolution is now a contemporary interdisciplinary effort to provide scientific answers to long-standing epistemological questions.

In anthropology, the main thrust of Lévi-Straussian epistemology is to assert that the process of thinking takes place in categories and demands making distinctions, and that not the content but the very fact of categories and distinctions distorts the "true" nature of the object of thought. If, as Lévi-Strauss believed to be the case, the mediating "unconscious activity of the mind consists in imposing forms upon content" (1958b [1949]: 28 [21]), Ricoeur's characterization of Lévi-Straussian structural anthropology as a "Kantianism without a transcendental subject" (Ricoeur, 1969: 55) is an apt phrase which Lévi-Strauss himself readily applauds (Lévi-Strauss, 1964: 19 [11]). He asserts, like Kant, that the world is seen through prestructuring spectacles. Nothing is seen as it is, but only as it is conceptually constructed in relation to other objects against which

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

it is contrasted, and thought depends upon language and thus upon the particular categories that a particular culture singles out.

These forms that the Lévi-Straussian mind applies necessarily to things are as constraining and universal as the categories of Kantian understanding, they are a-historical and a-cultural, since they "are fundamentally the same for all minds, ancient and modern, primitive and civilized, as the study of the symbolic function expressed in language so strikingly indicates" (Lévi-Strauss, 1958b [1949]: 28 [21]). In one sense they are as empty as the a priori forms of sensibility, as Lévi-Strauss showed for instance in relation to the "effectiveness of symbols":

> The unconscious is always empty, or more accurately it is as alien to mental images as is the stomach to the foods which pass through it. As the organ of a specific function, the unconscious merely imposes structural laws upon inarticulated elements which originate elsewhere, impulses, emotions, representations and memories. (Lévi-Strauss, 1958c [1949]: 224 [203])

This symbolic function is explicitly identified with the unconscious, which is its organ, an unconscious not psychological, but rather categorial, whose role consists in imposing structural laws upon a given matter. While formless and inarticulate, the elements that reach the human mind take meaning, acquire significance and become intelligible thanks to the operation by which the mind structures them. Owing to the assumption that these forms of founding significances are universal and immutable, Lévi-Strauss draws a methodological principle according to which any search for meaning of whatever human institution must be able to reveal them. Present in all the operations that the human mind controls, immutable and universal laws appear at all levels of the symbolic realm, as much in kinship systems as in myths. Indeed, behind their appearance of arbitrary and unbridled inventiveness, they conceal laws that are quite as constraining as any other human production. For Lévi-Strauss, faithful to Tylor, "if the human mind appears determined even in the realm of mythology, a fortiori it must also be determined in all its spheres of activity" (Lévi-Strauss, 1964: 18 [10]).

This is a transposition of Kantian philosophy to anthropology, although along different lines leading to different conclusions. Lévi-Strauss as an anthropologist, unlike Kant as a philosopher, does not feel obliged to take as a fundamental subject of reflection the conditions in which his own thought operates or the science peculiar to his society and the period in which he lives in order to extend these local findings to a form of understanding whose

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

universality can never be more than hypothetical and potential. Instead of assuming a universal form of understanding, the anthropologist prefers to study empirically collective forms of understanding, whose properties have been solidified, as it were, and are revealed to him in countless concrete systems of cultural representations. Moved to the extreme and objective limits of the ethnographic records by the search for what can be shared between an humanity that appears most distant to us and the way our own mind works, the anthropologist tries to uncover a pattern of universal and fundamental constraints common to all minds everywhere. Thus, for Lévi-Strauss, since his ambition is to

> discover the conditions in which systems of truth become mutually convertible and therefore simultaneously acceptable to several different subjects, the pattern of those conditions takes on the character of an autonomous object with a reality of its own, independent of any subject. (1964: 19 [11])

The question at the heart of Lévi-Strauss's anthropology is why everywhere in the world people tell selected myths, venerate particular totems, and prescribe or prohibit specified categories of marriageable partners and not others. If they act everywhere in such a way, they must have an intellectual device which leads them to act in that way.

One fundamental idea of great importance in Lévi-Strauss's work is the notion that social behaviour is always conducted by reference to a conceptual scheme, a model in the actor's mind of how things are or how they ought to be. Yielding to Marxism and accepting the "incontestable primacy of the infrastructures" and the "praxis of social groups", he aimed to "reduce" anthropology to a theory of superstructures, whose subject matter is not change in ideology but the mediating mental schemas between infrastructural *praxis* (human activity) and superstructural *practices* (cultural institutions), by elaborating a conceptual system which is a synthesizing operator between ideas and facts (Lévi-Strauss, 1962b: 173–4).

Durkheim already advocated this type of sociological explanation, since social phenomena are "objectivated systems of ideas". But at the same time he also advocated the "methodical experiment" to study social facts as if they were "things" (Durkheim, 1988 [1895]). The theoretical difficulties that Durkheim encountered when he relied upon collective emotional states as a final explanatory fact are merely the expression of an inappropriate formulation of the problem. The symbolic achievements that Durkheim sought

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

to explain sociologically simply cannot be traced back to social facts because they give rise to the social in the first place.

Lévi-Strauss reversed Durkheim's position by positing the origin of the symbolic aspect of cultural phenomena in the dialectical workings of the human mind and not in the way society is organized. Lévi-Strauss argues that the symbolic system is, by definition, the set of laws that makes social life possible and necessary, that governs the very nature of humans and their cultural productions and, in short, the condition of meaning. It must therefore be taken for granted as a Kantian a priori form. Convinced that the forms of symbolic thought are a given that cannot be further explained sociologically, he regarded the intersubjectively binding character of shared symbols through which a social order is constituted as embedded in pre-social facts, defined programmatically as the "unconscious activity of the human mind", to which not sociology but rather a "psychological anthropology" might provide theoretical access.

Paving the way for a cognitive turn in anthropology, Lévi-Strauss resolved the Durkheimian antinomy between dialectical and experimental methods by arguing that, through the mediation of conceptual schemas, facts and ideas are turned into signs and accomplished as structures, that is, "things both empirical and intelligible" (1962b: 173 [130]). Durkheim's "objectivated systems of ideas" are unconscious, or underlain by unconscious psychical structures that make them possible, which explains how social phenomena may present the character of meaningful wholes and structured systems. It follows for Lévi-Strauss that, since humans communicate by means of symbols and signs, and since social phenomena are made possible by the fundamental mediation of conceptual schemas, all cultural domains are "pregnant with meaning", whose only suitable explanation must be dialectical as opposed to mechanical. Thus social phenomena present the character of "things" but at the same time can be treated as ideas to be rethought in their logical order.

For Lévi-Strauss, in the societies he studied there seems to be no strict correspondence between the details of material life and the diversity of social practices. Neither economic nor environmental factors can account for the diversity of individual kinship systems or the particulars of cultural activity. Even if they could, the universality of structural patterns would still need explanation. Rejecting a strict correlation between the details of material life and ideas, he remarked in turn that the quality of intellectual selection is in that

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

which is "good to think" (1962a: 132 [89]). Symbolic systems formed by cultures are ideational, of the same kind as language, and exist prior to individuals. There would thus be a set of rules whose unconscious logical order must be used by people to construe their world. In other words, mental categories and the capacities of human mind are thought to be incarnated mental activities, actualized in the cultural symbolic systems of the social world in the most different societies.

> If, as we believe to be the case, the unconscious activity of the mind consists in imposing forms upon content and if these forms are fundamentally the same for all minds, ancient and modern, primitive and civilized, it is necessary and sufficient to grasp the unconscious structure underlying each institution and each custom, in order to obtain a principle of interpretation valid for other institutions and other customs. (1958b [1949]: 28 [21])

Appropriately, despite the interest in mental structures, Lévi-Strauss never turned away from empirical concerns but instead advocated that the anthropologist must aim at discovering the mechanisms of that unconscious objectivated thought on an ethnographic basis (1962b: 63 [46], 1964: 10–11 [3], 1971: 562 [628–9]). Structural analysis "reveals, behind phenomena, a unity and a coherence that could not be brought out by a simple description of the facts, 'laid out flat', so to speak, and presented in random order to the enquiring mind. By changing the level of observation and looking beyond the empirical facts to the relations between them, it reveals and confirms that these relations are simpler and more intelligible than the things they interconnect, and whose ultimate nature may remain unfathomable, without this provisional or definitive opacity being, as hitherto, an obstacle to their interpretation" (Lévi-Strauss 1971: 614 [687]).

That perception apprehends categories of the sensitive (the raw and the cooked, the fresh and the rotted, the boiled and the roast), or psychical and intellectual realities; it offers to the intelligence that can decipher them networks which articulate reality in structures that a naive empiricism would not be able to reveal. The same logic, be it mytho-logical, anthropo-logical or socio-logical, governs all the operations of the human mind. Thus is confirmed the bold assumption formulated since 1955. The conceptualization, violently directed against empiricist temptations, knows indeed a single mode, only its objects differ: "Resemblances no longer belong to the domain of pure observation. Instead of being apprehended as empirical data, they are comprehended as rational entities.

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

They cease to be merely observable, and become demonstrable'' (Lévi-Strauss, 1971: 32–3 [38]).

Lévi-Strauss recognized that the actual behaviour of real individuals may be full of irregularity and improvisation. But in his view these practices are nevertheless an expression of the actors' orderly ideal scheme, just as the ideal scheme is itself a programme for action produced by the praxis of the whole society. We may usefully compare the patterning of the relations which links together sets of human behaviours, but we shall not learn anything if we simply compare single cultural items as isolates. Any particular empirical case is only one alternative from a whole set of possibilities, which is a total system, with a theme and variations. The study of empirical phenomena is thus an essential part of the discovery process but it is only a means to an end.

This emphasis on the empirical is actually less paradoxical than it might seem, for it forms the connecting thread between the materialist thrust of Lévi-Strauss's early work on kinship and his later intellectual development. Anthropology is only apparently the study of customs, beliefs or institutions. Fundamentally, anthropological investigation is the study of thought. For Lévi-Strauss, anthropology must investigate the structures underlying the diversity of human cultures, to the extent that such structures refer to the properties of the human mind and to the symbolic functions which characterize it. Within this project, the aim of structural anthropology is to arrive at structures so general as to be common to all societies, absolute to the extent they are universal categories of the human mind, that is, structural invariants organized in systems of significances.

However, the investigation into the unconscious sphere of social activity and the structural programme was not carried out at the expense of a more materially based inquiry. Lévi-Strauss's materialist thrust was only displaced and refocused on ''fundamental structures of the human mind'', which spared him the accusations of both idealism and crude materialism. The empirical and analytical experience of structural procedures in anthropology, in any area that can be taken over by philosophical and metaphysical speculations, obtained the advantage of contributing to a ''regressive erosion'' of all taught philosopy (Lévi-Strauss, 1971: 570 [638]), in such a way as to send the philosophers back to what Nietzsche already called their ''phantasmagorias''. Lévi-Strauss could then maintain his empirical interests and out of hand reject criticisms conducted

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

along these lines, which also explains why he kept so distant from poststructuralist thought even though he was one of its primary instigators (Doja, forthcoming, 2006).

The properties of what Lévi-Strauss qualified as the ''savage mind'' are at the same time structured and structuring. The primacy of unconscious forms comes from the fact that they express a mode of disclosing and of producing a world. Rejecting interpretations in terms of history, cultural singularity and function, Lévi-Strauss opened the field to another possible, that of meaning. Since the question of meaning is put in the diversity of cultures, the irreducible position of the identity of human mind is in effect established. If there are laws of general importance which make sense behind the apparent cultural diversity, there must exist then a universal mental structure.

The heroic horizon: toward a future anthropology

No doubt, for Lévi-Strauss, the unconscious is conceived as having objective existence, being related to the biological nature of humans, to the very structure of mind and its specifically structural modalities. In contrast to the psychoanalytic unconscious, the structural unconscious reveals a formal framework or cognitive architecture that Lévi-Strauss both anticipated and called for. If we assert the pre-eminence of the categorial character of the unconscious, the symbolic will set out the widest possible differential for humans in a way that integrates all other dimensions. However, the origin of this differential is to be found in the very ''architecture'' of the brain as an integral part of the space–time reality.

Structural assumptions have thus had an unquestionable impact, even if they did not seem either always well grounded or always fertile. Structural anthropology constitutes an original set of theoretical reflections on cultural and social aspects of human life, and structural methodology rests on assumptions that are neither tautological nor trivial, but which relate to the very nature of human facts.

By its monumental character, Lévi-Strauss's work evokes that of the founders of anthropology (Sperber, 1982: 125), from L.H. Morgan to Sir James Frazer, whereas, by the way in which he granted equal space to the mental and the material, he anticipated a strong programmatic claim for an expansive scientific approach

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

and a theoretical anthropology to come. Lévi-Strauss's anthropology is a model-theoretic discipline, an axiomatic and deductive science. Its object remains the psyche, which it was already for E.B. Tylor. Its quest, however, culminates not in the hypothetical reconstruction of the evolutionary path toward enlightened modernity but instead in the formal exegesis of the universal "grammar", the structural and structuring properties of the mind itself. Lévi-Strauss proposed to develop an analysis of the operations of the human mind which does not deal with the psychological structures of individuals or even the whole structures of a society but, going farther, with the organizational schema of any society.

At Lévi-Strauss's instigation, the anthropological approach would comprise three stages, under the double relationship of methodology and subject of analysis, going from case studies to the description of general laws. Discreetly evocative of the universalist project which animated philosophical anthropologies, structural anthropology implies a hierarchy of modes and objects of knowledge wherein ethnography and ethnology are the other terms, not in a decreasing order of dignity, but according to their internal articulation within the various stages of scientific approach. With this passage from the particular to the general, a process of synthesis formerly reserved for sociology, Lévi-Strauss established the legitimacy of a theoretical anthropology as much distinct from and complementary to ethnography as theoretical physics is distinct from and complementary to experimental physics. In addition, in his attempt to overcome the conflict between individualism and holism, he showed that sociology, in its study of aggregates of individuals using "statistical models", and anthropology, in its study of the coherence of social structures using "mechanical models" (1958f [1953]: 311–13 [283–5]), entertain the same type of relationship with each other as thermodynamics with quantum mechanics in modern physics, as they respectively study the collective behaviour and the internal structure of atoms and molecules.

Lévi-Strauss's early works do not merely construct the first step of a structural study of kinship. What is interesting about *The Elementary Structures of Kinship* (1967 [1949]) is that this contribution to an extremely specialized branch of anthropology is accompanied by a more general contribution to social theory. Lévi-Strauss is concerned not simply to bring some kind of order to the mass of data accumulated on kinship relations, which has been the occasion of much debate in the specialized domain of kinship studies, but also

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

to determine the theoretical foundations of his scientific contribution to general anthropology. The elementary types of alliance offered a first sample of the organizing principles of culture and their capacity to generate a finite number of coherent forms. On that basis, it seemed that anthropology had a vocation to draw up a systematic inventory of all structurally stable social forms (Scubla, 1998). The principles of structural anthropology could appear then formally similar to the principles of quantum physics that provide the key to atomic structures. Much more, Lévi-Strauss in social science, like Einstein in natural science, by proving the rigorous patterning of, respectively, the transformational structure of myths and the relativity of the universe, has conferred on these the same status of absolute objects.

"If I have seen further it is by standing on the shoulders of giants", declared Isaac Newton in 1676, referring to his own work on optics. Unfortunately and to the collective detriment of social sciences and anthropology, but contrary to the natural sciences to which Stephen Hawking (2002) has recently paid a vibrant homage, we all too often tend to neglect the shoulders of our giants, not so much out of disloyalty as out of the sad vanity of an increasingly individualistic world in which we live. Perhaps Lévi-Strauss is not yet the Einstein he believed anthropology was waiting for (1958h [1956]: 180 [162]) nor the Mendeleyev cosmologist of social sciences he strove to be (1955: 203 [178]). Nevertheless, by charting a periodic table of disciplines in which anthropology finds its assigned place (1973c [1964]: 350–1 [298–9]), by constructing in the spirit of the new physics his celebrated "atom of kinship" (1958a [1945]: 58 [48]) and by conferring on mythic schemas the status of "absolute objects" (1964: 21 [13], 1971: 33 [38]), that is, a structural form similar to molecular stability, which can only become intelligible by the use of a "canonical formula" (1958g [1955]: 252–3 [228]), he inspired, in those his writings awakened to anthropological vocation, the feeling of taking part in a new intellectual adventure that was brilliant and captivating.

More than anything else, Lévi-Strauss cleared an imaginative space for generations of anthropologists to come, and his academic importance is now unquestioned. Anthropology's reputation owes much to him and his reputation among anthropologists remains exalted. Although his work is not easily accessible to the uninitiated, nor have all been convinced by his propositions, far from it, and despite all the criticism to which his work is subjected, the prestige

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

and the brilliance of the questions he raised in central areas like kinship, classification and mythology have radically transformed the way anthropologists pose questions and define their subject matter. His generalizations reached such grandiose scales that they are likely to provide an easy target for hostile critics, and there can be some weak patches in Lévi-Strauss's argument. It is easy to show that he is sometimes wrong on points of detail, but this does not detract from the massive validity of his major generalizations. Whatever the future impact of his work and even if time should reveal problems and limitations of structural analysis, the fundamental method of Lévi-Strauss's theory thus construed, even though far less influential than it was in the 1960s, is by no means bereft; it is an intellectual achievement that has not been surpassed and an innovation from which there can be no retreat.

Lévi-Strauss's anthropology is first a method of original knowledge, developed in the course of treating problems particular to a discipline but whose object is in principle so vast and whose fertility so remarkable that it quickly exerted an influence far beyond the original field of research. In many ways, the programme he constructed for anthropology became the "normal science" for the discipline as a whole, to the extent that, by the originality of his prescriptions as by the diversity of the phenomena he attempted to elucidate, he is an indispensable point of reference, in respect of which all generations of successive anthropologists, whatever their individual specializations or orientations, are held to define their approach, whether they subscribe to or dissociate themselves from these. There are however only a few who have effectively implemented some of the methods already tested by Lévi-Strauss himself. Others, even if fewer, have succeeded in widening the field of their validity by reformulating on occasion their assumptions. But this suggests in itself that the impact of structural anthropology is not limited to the remarkable achievements which established its initial legitimacy.

Albert Doja was awarded his Doctorate in Social Anthropology in 1993 from the Ecole des Hautes Etudes en Sciences Sociales in Paris and his post-doctoral degree in sociology and anthropology in 2004 from the University of Paris–5, Sorbonne. He has been a Research Fellow at the Institute of Popular Culture, Albanian Academy of Sciences, and, in France, at the National Centre for Scientific Research as a member of the Laboratory of Social Anthropology, founded by Claude Lévi-Strauss. He has been a Lecturer in Social Anthropology at the Department of Sociology, University of Paris–8, and at the Department of

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

Ethnology, University of Aix-en-Provence, France, as well as at the Department of Comparative and Applied Social Sciences, University of Hull, England. He is presently on the editorial board of *Ethnologia Balkanica: The Journal for Southeast European Anthropology*. Amongst his books and numerous articles published in international and national scholarly journals, his latest book, *Naître et grandir chez les Albanais: la construction culturelle de la personne*, was published in 2000 (Paris: L'Harmattan). Currently he is a Senior Research Fellow at the College of Humanities, University of Limerick, Ireland, and the Department of Anthropology, University College London. *Author's address*: College of Humanities, University of Limerick, Ireland. [*email*: albert.doja@ul.ie]

Note

1. Dates in square brackets throughout refer to the original date of publication of works. Page numbers in square brackets throughout refer to the English translations.

References

Barthes, R. (1993) "Le mythe aujourd'hui", in *Oeuvres complètes*, vol. 1, pp. 681–719. Paris: Le Seuil. (Orig. published 1957.)

Cassirer, E. (1954) *The Question of Jean-Jacques Rousseau*. New York: Columbia University Press.

Diamond, S. (1974) "The Inauthenticity of Anthropology: the Myth of Structuralism", in *In Search of the Primitive: a Critique of Civilization*, pp. 292–331. New Brunswick, NJ: Transaction Books.

Doja, A. (2005) "The Advent of Heroic Anthropology in the History of Ideas", *Journal of the History of Ideas* 66(4): 631–48.

Doja, A. (forthcoming, 2006) "The Predicament of Heroic Anthropology", *Anthropology Today*.

Durkheim, E. (1988) *Les règles de la méthode sociologique*. Paris: Flammarion. (English translation: *The Rules of Sociological Method*, ed. and intr. Steven Lukes, trans. W.D. Halls, New York: Free Press, 1982.) (Orig. published 1895.)

Eriksen, T.H. and Nielsen, F.S. (2001) *A History of Anthropology*. London: Pluto Press.

Geertz, C. (1988) "The World in a Text: How to Read Tristes Tropiques", in *Works and Lives: the Anthropologist as Author*, pp. 25–48. Stanford, CA: Stanford University Press.

Harris, M. (1968) *The Rise of Anthropological Theory: a History of Theories of Culture*. New York: Crowell.

Hawking, S., ed. (2002) *On the Shoulders of Giants: the Great Works of Physics and Astronomy*. Philadelphia, PA: Running Press.

Jakobson, R. (1981) "Linguistics and Poetics", in *Poetry of Grammar and Grammar of Poetry*, Selected Writings, vol. 3, pp. 18–51. The Hague and Paris: Mouton. (Orig. published 1960.)

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

Johnson, C. (2003) *Claude Lévi-Strauss: The Formative Years*. Cambridge: Cambridge University Press.

Josselin de Jong, J.P.B. (1952) *Lévi-Strauss's Theory on Kinship and Marriage*, Medelingen van het Rijksmuseum voor Volkenkunde, 10. Leyden: Brill.

Leach, E. (2000) "Telstar et les aborigènes ou la pensée sauvage", in S. Hugh-Jones and J. Laidlaw (eds) *Anthropology and Society, The Essential Edmund Leach*, vol. 1, pp. 113–27. London: Yale University Press. (Orig. published 1964.)

Lévi-Strauss, C. (1950) "Introduction à l'œuvre de Marcel Mauss", in *Marcel Mauss, Sociologie et Anthropologie*, pp. ix–lii. Paris: Presses Universitaires de France. (English translation: *Introduction to the Work of Marcel Mauss*, trans. Felicity Baker, London: Routledge and Kegan Paul, 1987.)

Lévi-Strauss, C. (1955) *Tristes Tropiques*, nouvelle édn. Paris: Plon (1973) (English translation: *Tristes Tropiques*, trans. John and Doreen Weightman, London: Cape, 1973.)

Lévi-Strauss, C. (1958a) "L'analyse structurale en linguistique et en anthropologie", in *Anthropologie structurale*, pp. 37–62. Paris: Plon. (English translation: "Structural Analysis in Linguistics and in Anthropology", in *Structural Anthropology*, pp. 31–54, trans. Claire Jacobson and Brooke Grundfest Schoepf, New York: Basic Books, 1963.) (Orig. published 1945.)

Lévi-Strauss, C. (1958b) "Introduction: histoire et ethnologie", in *Anthropologie structurale*, pp. 3–33. Paris: Plon. (English translation: "Introduction: History and Anthropology", in *Structural Anthropology*, pp. 1–27, trans. Claire Jacobson and Brooke Grundfest Schoepf, New York: Basic Books, 1963.) (Orig. published 1949.)

Lévi-Strauss, C. (1958c) "L'éfficacité symbolique", in *Anthropologie structurale*, pp. 205–26. Paris: Plon. (English translation: "The Effectiveness of Symbols", in *Structural Anthropology*, pp. 186–205, trans. Claire Jacobson and Brooke Grundfest Schoepf, New York: Basic Books, 1963.) (Orig. published 1949.)

Lévi-Strauss, C. (1958d) "Langage et société", in *Anthropologie structurale*, pp. 63–75. Paris: Plon. (English translation: "Language and the Analysis of Social Laws", in *Structural Anthropology*, pp. 55–66, trans. Claire Jacobson and Brooke Grundfest Schoepf, New York: Basic Books, 1963.) (Origi. published 1951.)

Lévi-Strauss, C. (1958e) "Linguistique et anthropologie", in *Anthropologie structurale*, pp. 77–91. Paris: Plon. (English translation: "Linguistics and Anthropology", in *Structural Anthropology*, pp. 67–80, trans. Claire Jacobson and Brooke Grundfest Schoepf, New York: Basic Books, 1963.) (Origi. published 1953.)

Lévi-Strauss, C. (1958f) "La notion de structure en ethnologie", in *Anthropologie structurale*, pp. 303–50. Paris: Plon. (English translation: "Social Structure", in *Structural Anthropology*, pp. 277–323, trans. Claire Jacobson and Brooke Grundfest Schoepf, New York: Basic Books, 1963.) (Orig. published 1953.)

Lévi-Strauss, C. (1958g) "La structure des mythes", in *Anthropologie structurale*, pp. 227–55. Paris: Plon. (English translation: "The Structural Study of Myth", in *Structural Anthropology*, pp. 206–55, trans. Claire Jacobson and Brooke Grundfest Schoepf, New York: Basic Books, 1963.) (Orig. published 1955.)

Lévi-Strauss, C. (1958h) "Les organisations dualistes existent-elles?", in *Anthropologie structurale*, pp. 147–80. Paris: Plon. (English translation: "Do Dual Organizations Exist?", in *Structural Anthropology*, pp. 132–63, trans. Claire Jacobson and Brooke Grundfest Schoepf, New York: Basic Books, 1963.) (Orig. published 1956.)

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

Lévi-Strauss, C. (1962a) *Le totémisme aujourd'hui*. Paris: Presses Universitaires de France. (English translation: *Totemism*, trans. Rodney Needham, Boston, MA: Beacon Books, 1963.)

Lévi-Strauss, C. (1962b) *La Pensée sauvage*. Paris: Plon. (English translation: *The Savage Mind*, Chicago, IL: University of Chicago Press, 1969.)

Lévi-Strauss, C. (1964) *Le cru et le cuit, Mythologiques I*. Paris: Plon. (English translation: *The Raw and the Cooked, Introduction to a Science of Mythology*, trans. John and Doreen Weightman, New York: Harper and Row, 1969.)

Lévi-Strauss, C. (1966) *Du miel aux cendres, Mythologiques II*. Paris: Plon. (English translation: *From Honey to Ashes, Introduction to a Science of Mythology*, Vol. 2, trans. John and Doreen Weightman, New York: Harper and Row, 1973.)

Lévi-Strauss, C. (1967) *Les structures élémentaires de la parenté*. Paris and The Hague: Mouton. (2nd edn, reprinted 2002.) (English translation: *The Elementary Structures of Kinship*, trans. James Harle Bell, John Richard von Sturmer and Rodney Needham, Boston, MA: Beacon Press, 1969.) (Orig. published 1949.)

Lévi-Strauss, C. (1971) *L'homme nu, Mythologiques IV*. Paris: Plon. (English translation: *The Naked Man*, trans. John and Doreen Weightman, New York: Harper and Row, 1981.)

Lévi-Strauss, C. (1973a) "La geste d'Asdiwal", in *Anthropologie structurale deux*, pp. 175–233. Paris: Plon. (English translation: "The Story of Asdiwal, in *Structural Anthropology II*, pp. 146–97, trans. Monique Layton, New York: Basic Books, 1976.) (Orig. published 1959.)

Lévi-Strauss, C. (1973b) "Jean-Jacques Rousseau, fondateur des sciences de l'homme", in *Anthropologie structurale deux*, pp. 45–56. Paris: Plon. (English translation: "Jean-Jacques Rousseau, Founder of the Sciences of Man", in *Structural Anthropology II*, pp. 33–43, trans. Monique Layton, London: Penguin Books, 1977.) (Orig. published 1962.)

Lévi-Strauss, C. (1973c) "Critères scientifiques dans les disciplines sociales et humaines", in *Anthropologie structurale deux*, pp. 339–64. Paris: Plon. (English translation: "Scientific Criteria in the Social and Human Disciplines", in *Structural Anthropology II*, pp. 288–311, trans. Monique Layton, London: Penguin Books, 1977.) (Orig. published 1964.)

Lévi-Strauss, C. (1985) *La potière jalouse*. Paris: Plon. (English translation: *The Jealous Potter*, trans. Bénédicte Chorier, Chicago, IL: University of Chicago Press, 1988.)

Lyotard, J.-F. (1979) *La condition post-moderne: rapport sur le savoir*. Paris: Minuit. (English translation: *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington and Brian Massumi, foreword by Frederic Jameson, Minneapolis: University of Minnesota Press, 1984.)

Maranda, P., ed. (2001) *The Double Twist: From Ethnography to Morphodynamics*. Toronto: University of Toronto Press (Anthropological Horizons).

Mauss, M. (1950) "Essai sur le don: forme et raison de l'échange dans les sociétés archaïques", in *Sociologie et anthropologie*, pp. 143–279. Paris: Presses Universitaires de France. (English translation: *The Gift. The Form and Reason for Exchange in Archaic Societies*, trans. W.D. Halls, foreword by Mary Douglas, New York and London: W.W. Norton, 1990.) (Orig. published 1924.)

Ricoeur, P. (1969) *Le conflit des interprétations: essais d'herméneutique*. Paris: Seuil. (English translation: *The Conflict of Interpretations*, ed. Don Ihde, Evanston, IL: Northwestern University Press, 1974.)

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.

Rousseau, J.-J. (1969) *Discours sur l'origine et les fondements de l'inégalité parmi les hommes*, ed. Jean Starobinski. Paris: Gallimard. (English translation: *Discourse on the Origin of Inequality*, Harmondsworth: Penguin Books, 1984.) (Orig. published 1755.)

Scubla, L. (1998) *Lire Lévi-Strauss: le déploiement d'une intuition*. Paris: Odile Jacob.

Sperber, D. (1982) "Claude Lévi-Strauss aujourd'hui", in *Le savoir des anthropologues*, pp. 87–128. Paris: Hermann. (English translation: *On Anthropological Knowledge: Three Essays*, Cambridge and New York: Cambridge University Press, 1985.)

Steinmetz, R. (1984) "Le matérialisme biologique de Lévi-Strauss", *Revue Philosophique de la France et de l'Etranger* 174(4): 427–41.

Wiener, N. (1948) *Cybernetics or Control and Communication in the Animal and the Machine*. Cambridge, MA: MIT Press.

Downloaded from http://ssi.sagepub.com by Pavel Rykin on November 22, 2007
© 2006 Maison des Sciences de l'Homme , SAGE Publications. All rights reserved. Not for commercial use or unauthorized distribution.