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Claude Lévi-Strauss at
His Centennial
Toward a Future Anthropology

Albert Doja

Abstract
Lévi-Strauss's centennial is an opportunity to show his inextricable connec-
tions with the evolution of 20th-century thought and what these promise
for 21st-century anthropology. He has mapped the philosophical parameters
for a renewed ethnography which opens innovative approaches to history,
agency, culture and society. The anthropological understanding of history,
for instance, is enriched by methodical application of his mytho-logical
analysis, in particular his claim that myths are 'machines for the suppression
of time'. Lévi-Strauss's thought has led to the development of new and invig-
orated forms of structural analysis, exemplified by the way that his concept
of canonical expression has provided the foundation for the sophisticated
application of transformational analysis and formalization.

Key words
agency ■ cognition ■ mind ■ myth ■ structuralism ■ structure

Prelude
WITH HIS collection of Structural Anthropology published in 1958,
Lévi-Strauss paid homage to Emile Durkheim in his centennial
year. Claiming to be an ‘inconstant disciple’, he regretted that ‘the
prestigious workshop where French anthropology showed part of its begin-
nings was left silent and abandoned, less by ingratitude than by the unhappy
conviction that the task would exceed our forces’ (Lévi-Strauss, 1958:
epigraph). Fifty years further on, looking back on the development of
anthropology, we now acknowledge another founding master, in his own
centennial year, whose vision and ambition have created a future for theoretical anthropology based on methodological clarity, scientific rigour and global awareness.

Lévi-Strauss’s corpus of work is far-reaching and comprehensive in its scope, including methodology, philosophy, history, humanism, mythology, linguistics, cognition and reasoning. Above all, two elements are recurrent in Lévi-Strauss’s work: his concern with epistemological issues of anthropological knowledge and with an ethical conception of the anthropologist’s work. It is Lévi-Strauss’s adroitness and talent to have been able to determine the theoretical foundations of a revolutionary scientific and humanistic contribution to general anthropology. He first produced the high social theory of the Elementary Structures of Kinship (1967 [1949]), showing the passage from nature to culture and revealing the foundations of human society. He then produced the high science of Mythologiques (1964, 1966, 1968, 1971), showing the operation of the Savage Mind (1962a) and revealing the foundations of human cognition. He also produced the heroic quest of Tristes Tropiques (1955), precisely evoking anthropology as both science and humanism. What follows, however, after some earlier attempts (Doja, 2005, 2006a, 2006c), is a personal reflection on the reception, interpretation and continuing relevance of Lévi-Strauss’s thought on some themes that persistently recur throughout his work.

I am also an ‘inconstant’ disciple. My anthropological training in France convinced me of the superiority of what I had learned. After moving to Britain to take a lectureship at the University of Hull, all my anthropological knowledge was challenged to the point that I had everything to learn. With maturity, like Edmund Leach who is reported to have confessed almost the same with regard to his own tribute to Malinowski (Hugh-Jones and Laidlaw, 2000), I came to see that with Lévi-Strauss there was truth on both sides.

Anthropology today is largely concerned with questions of migration, diseases, famine, poverty, feminism, reflexivity, corruption, globalism, ethnic conflicts, civil wars, human rights, cultural activism, fundamentalism, and terrorism. . . . An attempt to revive Lévi-Strauss to a central position can hardly meet immediately and directly with all of these social and political issues. Yet structural anthropology may innovatively account for the dynamics of social systems and the praxis of both competition and strategic manoeuvring.

Misconceptions and Misunderstandings

The true value of Lévi-Strauss’s works, especially in the Anglo-American world, has been obscured by misunderstandings, which have no doubt been made worse by problems of cultural more than linguistic translation, as well as by the vagaries of intellectual fashion.

A basic misunderstanding regards Lévi-Strauss’s philosophical positions as close to a form of idealism or mentalism. The most common misunderstanding, however, concerns structuralism and history. The
misreading of his thermal analysis of history in his model of ‘cold’ and ‘hot’ societies (1961: 37–48 [Eng. 1969: 32–42]), and misinterpretations of the dichotomy of diachronic and synchronic approaches, have led to wrong assumptions about the structural anthropological engagement with history. A critical assessment of these heuristic rather than taxonomic categories must challenge the characterization of Lévi-Strauss’s anthropology as a-historical.

Not only Lévi-Strauss’s original approach to history, but above all his actual theoretical and epistemological contribution to general knowledge and the humanism of structural anthropology as a human science are seemingly neglected and rarely appreciated, if not deliberately misconstrued, despite the fact that they are essential aspects of Lévi-Strauss’s theory. Furthermore, some of these aspects could lay strong claim to having mapped within anthropology the philosophical parameters of an increasing preoccupation with issues of political concern and engagement in the postcolonial era, as well as with issues of contextualization and reflexivity in the face of the declining coherence of meta-narrative and grand theory. To the extent of the impact of the new form of humanism initiated by structural anthropology (see Doja, 2008), Lévi-Strauss used structural arguments coherently and correctly to analyse the cultural order and at the same time he recognized the transient character of this order by means of entropy, irreversibility and, not surprisingly, deconstruction and self-reflexivity. Arguably, some of these and other aspects of Lévi-Strauss’s theory may be put forward as a workable methodology in helping us to build innovative anthropological approaches to history, agency, culture and society.

His critics have insisted on addressing his substantive views, especially the inadequacy of his definition of structure, history and agency and, above all, his brand of structuralism. Surely these are key issues in understanding Lévi-Strauss’s thought, and the rise of structuralism is historically inseparable from the prestige of anthropology. In France, important scholars like Jacques Lacan, Roland Barthes, Michel Foucault and Pierre Bourdieu were brought up on structuralism, eventually rebelled against it, and their rebellion was in turn noted and debated by anthropologists, who brought these authors into the canon of anthropology. However, to equate Lévi-Strauss with structuralism is to distort our understanding of his legacy and his continuing relevance in anthropology and social theory. We must legitimately ask to what extent, in the popular imagination at least, a version of structuralism invented retrospectively by ‘post-structuralists’ has become substituted for the real thing (see Doja, 2006b).

The clearest expression of the nature of structuralism is in Lévi-Strauss’s earlier essays, where he seeks to extrapolate a method for the study of kinship from the linguistics of Saussure, Jakobson and Trubetzkoy. Thus, in his paradigm of matrimonial exchange, the linguistic model played an undeniable role. 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* (1924 [1950]) to Lévi-Strauss, as Marvin Harris (1968: 484) punningly put it, which is most crucial to the theoretical infrastructure of the *Elementary Structures of Kinship* (Lévi-Strauss, 1967 [1949]). Giving to others, an act that generates a debt, creates social relationship as obligatory perpetual response. Acts of exchange are at the root of functioning social order. Exchange provides the underlying logic of different marriage rules and is the positive aspect of incest prohibition: the founding agency of social cohesion emerging from the passage from ‘nature’ to ‘culture’.

Between the late 1940s and the early 1950s, Lévi-Strauss was grafting the linguistic-communicational model onto the model of exchange. He was also preoccupied with the psychological dimension of reciprocity. This conjunction leads him to the symbolic nature of social institutions. Relationships between members of a community are symbolic to the extent that their development entails the creation of intermediating constructs whose form is a matter of arbitrary convention, and which together form a system somewhat independent of community members. If one accepts this understanding, it follows that the analytic methods of structural linguistics may be applicable to these other symbolic systems. According to the conception defended by Lévi-Strauss from the start in his *Introduction to the Work of Marcel Mauss* (1950), all social productions form parts of symbolic systems. So, structural analysis as intellectual tool and scientific method enabled him to pass uninterrupted from the study of kinship to that of myth.

However, Lévi-Strauss’s conception of myth came to owe almost nothing to the phonological model of language. By the time he embarked on the four volumes of *Mythologiques* in the 1960s his interest was in sets of relations, the model for which might just as easily be music or mathematics or physics. His description of the genesis of a symbolic system like myth shows the passage from the discontinuous to the continuous, using notions from physics and chemistry such as ‘precipitation’, ‘crystallization’ or ‘coalescence’. In addition, his resolution of conflictual or hierarchical relationships into relations of complementarity or reciprocity is linked to 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. In fact, 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 and his treatment of the relationship between discrete complex cultural systems is often seen in terms of transformations in science and technology of the period, as exemplified in new mathematics, information science, cybernetics, game theory, biology and catastrophe theory.

**The Structural Scientific Revolution**

Lévi-Strauss developed anthropology into a scientific project with a more sophisticated intellectual purchase for understanding humanity than is generally acknowledged or than the discipline had achieved, either
previously or ever since. He helped to renew anthropology as a specialized vocation with its own language, objects, methods and theory. He also made anthropology one of the essential reference points of intellectual discourse in France. His ambition to provide the social sciences with a rigour and power comparable to the natural sciences brought the discipline into the mainstream of intellectual life. As George Steiner (1967: 250) claimed:

the bearing of that work on the notion of culture, on our understanding of language and mental processes, on our interpretation of history is so direct and novel that an awareness of Lévi-Strauss’s thought is a part of current literacy.

Lévi-Strauss’s theoretical interpretations brought about an epistemological break with previous methods of analysis, to such an extent that we can refer to a real anthropological scientific revolution, at least with regard to the successive Copernican revolutions to which he subjected kinship and marriage (1967 [1949]), thinking as a classifying exercise (1962a, 1962b), and the transformational logic of myths (1964, 1966, 1968, 1971). As Thomas Shalvey (1979) put it, the hand on the philosophical and social scientific clock has moved once again: first, in the theocentric universe, upward toward God; then, after Nietzsche, to a horizontal plane, toward man and an historical dimension; now, with Lévi-Strauss, downward toward the unconscious structures. Howard Gardner also recognized that the structural methods of Lévi-Strauss constitute ‘the most significant contemporary innovation’ in the social and behavioural sciences (1981: xii), and believes that ‘one hundred years from now Lévi-Strauss’s research program will be seen as more right-headed than that of his strongest critics – the true mark of an important thinker’ (1985: 241–2).

Lévi-Strauss’s originality was to challenge the dilemma of the conceptual opposition between human nature and cultural variety, attempting to show that one underlies the other in the way that an abstract and homogeneous structure may control its actual and varied manifestations (Sperber, 1982: 89). The principle is not new, it was taken for granted in traditional philosophical anthropology, but modern ethnographic knowledge had called it into question. The task that Lévi-Strauss fixed to himself was to rejoin this principle and challenge ethnographic empiricism. At the same time, he tried to identify universal laws of the human mind as they express themselves through such domains of kinship, myth, art and ‘primitive’ forms of classification. To this extent, his goal was to better account for cultural diversity and to establish the intellectual unity of humankind.

His structural assumptions have produced an unquestionable impact, even if they did not seem always well grounded or fertile. Structural analyses and procedures constitute an original set of theoretical reflections on cultural and social aspects of human life, and rest on assumptions which are neither tautological nor trivial, but relate to the very nature of human facts. Lévi-Strauss thus enjoys a single, quasi demiurgic gift to flush out
affinities of meaning from anywhere and anything. The magic of his work is precisely due to the very combination of an extreme rigour of demonstration and a great generosity of phenomenal explanation. He is probably the anthropologist who has done the most to combat crude empiricism. His work, 'a temple of reason in the absence of being a monument of scientificity' (Sperber, 1982), indeed presents itself like an extraordinary machine to convert the most various beliefs and customs into the language of reason.

Since at least the early 1950s his peculiar ‘view from afar’ has also queried contemporary issues like the place of traditional Christmas in modern society (Lévi-Strauss, 1952 [1994]). He still offers unusual reflections on contemporary themes such as female sexuality (1998), the market economy (2001a), the avuncular relation between Earl Spencer and the sons of Princess Diana, mad-cow disease and modern human sociality (2001b, 2004), or the similarities between mythological models and the interpretative quandaries of modern physics. Above all, it is not sufficiently understood that Lévi-Strauss is a profoundly ecological thinker. His critique of a ‘corrupt’ humanism that places ‘Man’ above other living beings is today more relevant than ever. Not surprisingly, he is unrelentingly and uncompromisingly still going over it again and again (Lévi-Strauss, 2007).

Lévi-Strauss’s generalizations can provide easy targets for hostile critics, and there are flaws in some of his arguments, like the ‘antipathy’ towards Islam that he notoriously displays in Tristes Tropiques (1955). But while it is easy to show that he is sometimes wrong on points of detail, this does not detract from the 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, even though less influential now than it was in the 1960s, remains a massive intellectual achievement that has not been surpassed and an innovation from which there can be no retreat.

The Anthropologist as a Hero

Lévi-Strauss is truly an explorer finding his way into a new realm: a new world of myth and a new world of the imagination. In this respect his work is dealing with both the analysis of the content of myths and the mental processes that are responsible for their creation. Because such mythical contents and such mental processes had already been the subject of allegorist Frazerian exegesis or heated Freudian speculation respectively, Lévi-Strauss’s writings have acquired a significance far beyond the immediate realm of anthropological research. Litterateurs, psychologists, historians or philosophers of any kind felt compelled to come to terms with Lévi-Strauss’s radical views, but the fact that most of these hangers-on knew little about the technicalities of kinship systems, the exigencies of the ecology in the Brazilian jungles, or the debates around dual organization and similar matters meant that Lévi-Strauss himself became a mythical figure.

The works of Lévi-Straus are not reducible to the exposition of a method or doctrine. They constitute a complex assemblage of texts, often
related by hidden connections, whose meaning in many ways remains to be discovered. In this very different intellectual and political context of our time, what comes to the fore in rereading The Savage Mind (Lévi-Strauss, 1962a), for example, is not so much the analysis of the logic of classificatory systems, but remarks on the place of affect in social relations and the ethical dimension of Lévi-Strauss’s thought. Arguably, Lévi-Strauss’s structural anthropology is, at its core, an epistemology that has already produced an original approach to ethics.

Despite his conceits and idiosyncrasies, his rather cranky set of interests and obsessions, Lévi-Strauss has proved to be an enduring figure in the history of social theory and anthropology. Lévi-Strauss’s thinking on issues that mattered to him is anything but linear and simple. In all likelihood, when all the criticisms have been considered, few of Lévi-Strauss’s particular conclusions may remain and he will be remembered not so much for developing theories that may help us to explain the real world. But the critiques have only been possible because of his fertile questions and provocative hypotheses. In addition, with his acknowledgement that mental satisfaction is a product of things ‘good to think’ (1962b: 132 [Eng. 1963: 89]), he moved anthropology toward a more formal method and more scientific aspirations. He inadvertently ignited an intellectual enthusiasm that swept through nearly all social sciences and the humanities and made of him, in Susan Sontag’s terms, the first anthropologist as ‘a hero of our time’ (1963 [1990]).

However, it is not the formalistic search for binary oppositions that is genuinely valuable, as it is not the odd facts or even the odder explanations Lévi-Strauss brought forth that made of him an intellectual hero. Pinning the label ‘heroic’ to any sort of anthropological practice is a highly vague, subjective and potentially contentious affair. The heroic anthropologist lives on, in many cases to be celebrated as an ‘engaged intellectual’, by virtue of his or her own status as such, and not ‘in a final and fantastic opposition to the hero-as-martyr’ or by virtue of a necessary imagined adventurous ‘death or disappearing into one’s informants’ (Hartman, 2007).

Admittedly, no anthropologist has been more insistent than Lévi-Strauss on the fact that ‘the practice of his profession has consisted of a personal quest, driven by a personal vision, and directed toward a personal salvation’ (Geertz, 1967 [1973]: 346). In the form of the standard prophetic myth of the heroic quest, with the anthropologist as its hero, as Richard Shweder put it, Lévi-Strauss transformed an expedition to the virgin interiors of the Amazon into a vision quest, and turned anthropology into a spiritual mission to defend humankind against itself (in Hayes and Hayes, 1970). To this extent, in the ‘heroic’ practice of Lévi-Strauss’s anthropology, the ‘psychological ordeal’ of ethnographic fieldwork is a double one: not only is the anthropologist constantly and agonizingly forced to call into question the parameters of his own existence and assumptions by contact with the exotic Other, but he is forced to watch helplessly as indigenous cultures are irrevocably destroyed by the processes of modernization.
The anthropology of Lévi-Strauss is a model-theoretic discipline, an
axiomatic and deductive science. Its object remains the essential nature of
human mind or the psychic unity of humankind, as it was already for Edward
B. Tylor. Its quest, however, culminates not in the hypothetical reconstruc-
tion of the evolutionary path toward enlightened modernity but instead in
the formal exegesis of the universal ‘grammar’, the structural and structur-
ning 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. By
its monumental character, Lévi-Strauss’s work evokes that of the founders
of anthropology, from Lewis Morgan to Sir James Frazer (Sperber, 1982:
125), whereas, by the way in which he granted equal space to the mental
and the material, he anticipated a strong programmatic claim for an expan-
sive scientific approach and a theoretical anthropology to come.

At Lévi-Strauss’s instigation, an anthropological approach would
comprise three stages – ethnography, ethnology, anthropology – interrelated
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, struc-
tural anthropology implies a hierarchy of modes and objects of knowledge
wherein ethnography and ethnology are the other terms, not in a decreas-
ing 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 to 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 ‘statisti-
cal models’, and anthropology, in its study of the coherence of social struc-
entertain the same type of relationship with each other as thermodynamics
with quantum mechanics in modern physics, since 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 Struc-
tures 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 might have been the occasion of much debate in the specialized
domain of kinship studies, but also 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. Not surprisingly, therefore, we may think of Lévi-Strauss in social science having demonstrated the rigorous patterning of the transformational structure of myths just as Einstein in natural science demonstrated the pattern of the structural relativity of the universe. In that case, as Einstein did for the universe, Lévi-Strauss has conferred on mythic schemas the same status of ‘absolute objects’ (1964: 21 [Eng. 1969: 13], 1971: 33 [Eng. 1981: 38]).

‘If I have seen farther, 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 (1956 [1958]: 180 [Eng. 1963: 162]), nor the Mendeleyev cosmologist of social sciences he strove to be (1955: 203 [Eng. 1973: 178]). Nevertheless, by charting a periodic table of disciplines in which anthropology finds its assigned place (1964 [1973]: 350–1 [Eng. 1977: 298–9]), by constructing in the spirit of the new physics his celebrated ‘atom of kinship’ (1945 [1958]: 58 [Eng. 1963: 48]), and by conferring on mythic schemas the status of ‘absolute objects’ (1964: 21 [Eng. 1969: 13], 1971: 33 [Eng. 1981: 38]), that is, a structural form similar to molecular stability, which can only become intelligible by the operation of a ‘canonical formula’ (1955 [1958]: 252–3 [Eng. 1963: 223]), he inspired, in those his writings awakened to an anthropological vocation, the feeling of taking part in a new intellectual adventure that was brilliant and captivating.

The Algebraic Mind

Whether working with kinship structures or with preliterate myths both within and across cultures, Lévi-Strauss was involved in investigating how the mind works. He attempted to demonstrate a logico-mathematical structure of mind and cognition by maintaining that myths and kinship systems exhibit a kind of algebraic structure. His finding of a kinship ‘algebra’ in his Elementary Structures of Kinship (1967 [1949]), which was provided with an imprimatur by renowned algebraist André Weil, seems widely accepted. By systematically using his method of structural analysis of myths, Lévi-Strauss maintained that it should be possible to organize all the known variants of a myth into a series of transformations resulting in a group of myths of the same logical type, the ‘set forming a kind of permutation group’ (Lévi-Strauss, 1955 [1958]: 248 [Eng. 1963: 223]). He also recognized the cognitive significance of analogical reasoning, in so far as the ‘savage mind’ can be defined as ‘analogical thought’ (1962a: 348 [Eng. 1966: 263]).
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 Norbert Wiener's (1948) reflections on the limitations of logic and on the possible applications of cybernetics, which are 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.

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. In the course of his argument of myth as a kind of meta-discourse whose function is the regulation and resolution of contradictions (1955 [1958]: 254 [Eng. 1963: 229]), Lévi-Strauss seeks to demonstrate that the successive variants of a myth are a living aggregate, a code of cultural reinterpretation in which single elements are regrouped and not lost. In fact, 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. The analogy is that of mathematical topology studying relations that remain constant even when configurations change.

According to Lévi-Strauss, mythic variations and their mediating function constitute a group of transformations, the logic of which has been represented by what he refers to as the 'canonical relation' that articulates a dynamic homology between meaningful elements. This is the great discovery of Lévi-Strauss that made it possible for structural anthropology to overcome the logic of binary oppositions – to which it is too often and obstinately reduced – in order to become a morphogenetic dynamics; hence it can be characterized as a cumulative transformation, in good structuralist terms, of Marxian ideas, just as the latter are a cumulative transformation of Hegelian dialectics.

The canonical formula of myth is the momentum of reversal. It is precisely the transformational invariant that allows the dynamism of structure to be apprehended through its transformations, in particular when an exchange between term and function values occurs, which is evidenced rhetorically on the narrative level by a metamorphosis. Lévi-Strauss's canonical conception, first proposed in 1955 in his chapter on the
‘Structural Study of Myth’, transcends a simple analogical relation to a quadratic-looking equation:

\[ Fx(a):F(y) :: Fx(b):Fa^{-1}(y) \]

A formula of this type reflects a group of transformations in which it is assumed that a relation of equivalence exists between two situations defined respectively by an inversion of terms and relations, provided that one of the terms is replaced by its opposite and that a correlative inversion is made between the function value and the term value of two elements (Lévi-Strauss, 1955 [1958]: 252–3 [Eng. 1963: 228]).

Most anthropologists may agree that Lévi-Strauss’s algebraic formulae applied to kinship systems and his morphodynamic transformational analyses applied to preliterate myths are, respectively, either superfluous or problematic. Some have maintained, for example, that Lévi-Strauss’s algebraic finding does not add anything to the understanding of kinship relations (Cargal, 1996). From a cognitive perspective, however, it does not matter if Lévi-Strauss’s demonstration of an algebraic structure to kinship relations adds nothing significant to the study of kinship relations. What is significant cognitively is the fact of demonstrating the existence of an algebraic structure undergirding kinship or mythic relations.

Based on voluminous experimental and other research, it is now widely accepted that analogical/metaphorical reasoning is basic to all thinking (Gentner et al., 2001; Lakoff and Johnson, 2003). Different theoretical expositions of computational data integrating connectionism and cognitive science have also advanced the understanding of ‘inherent’ cognitive bases subserving mathematics (Lakoff and Nunez, 2000). On a more theoretical level, analyses of computational and artificial intelligence models suggest that the brain inherently must function algebraically (Marcus, 2001). It has been suggested more precisely that the findings derived from empirical research using a binary computational model can be seen as supporting Lévi-Strauss’s algebraic model of mind (Klein, 2002). Likewise, some recent works using mathematical set notation show a general underlying algebraic structure for many myths and narratives (Griffin, 2006). The findings of recent research by Robert Haskell and his associates, based on a systemic set of numeric references found in oral narratives (Haskell, 2003), demonstrate that the cognitive structure of certain verbal narratives corresponds to some structures found in the mathematical theory of groups and sets, more precisely the specific algebraic structure of a commutative Abelian semigroup with identity (Haskell and Badalamenti, 2003). The narrative references seen as variants of a numeric set forming such a mathematically constructive algebraic group are thereby held to support Lévi-Strauss’s claim of an algebraic structure to human mind and cognition as derived from his structural analysis of myths (Haskell, 2008). Relatedly pertinent are, finally, the critical analyses of Lévi-Strauss’s claim of a universal formula of mythopoeic dynamics (Maranda, 2001; Petitot, 1988; Scubla, 1998)
which, from the start, he referred to as ‘canonical’ because it seems to represent any mythic transformation.

In the final analysis, the issue is of considerable significance. It is on the possibility of the canonical formalizations that the very status and expectations of the structural enterprise indeed depend. Taking account of transformational and morphogenetic analysis of myth, as well as the theoretical project it inspires in trans-local ethnography, many believe that anthropology could thus provide itself with the formal means to take stock of the whole of the possible structures of communication – including the exchange of messages, goods or women – as well as to come to terms with the question of meaning by reducing it to that of structure, to bring the signified into the signifying, and to dissolve semantics into syntax. In this way, the perspective seems to be changing in relation to generative grammar theory as well, and, as Lucien Scubla (1998: 268) believes, it is Noam Chomsky’s formalism that now tends to appear superficial.

Toward New Paradigms

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 is so remarkable, that it quickly exerted an influence far beyond the original field of research. In many ways, the programme that Lévi-Strauss constructed for anthropology became the ‘normal science’ for the discipline as a whole. Through the originality of his prescriptions as much as the diversity of the phenomena he attempted to elucidate, Lévi-Strauss is an indispensable point of reference for all generations of successive anthropologists. Whatever their individual specializations or orientations, they are held to define their approach through either subscribing to or dissociating themselves from his.

There are 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 further the field of their validity by, on occasion, reformulating their assumptions. Among many things, one must pay tribute to the intention of recuperating the same procedures, without however providing a mere application of Lévi-Strauss’s method, in applying the dynamic aspect of structuralism and its transformational perspective to other socio-cultural phenomena, including those, like ritual, to which Lévi-Strauss seemed refractory, or those, like social organization, in which his analysis was pervaded by a functional flavour (e.g. Desveaux, 2001). After many years of harsh criticism based on a superficial reading of his work, more than anything else Lévi-Strauss will be remembered for prompting many researchers to generate more imaginative hypotheses, which can then be tested through empirical research. But this suggests in itself that the impact of structural anthropology is not limited to the remarkable achievements that established its initial legitimacy.

Historical contingencies and economic and political reflections vivified by the structural and dynamic approaches generated new debates.
during which history and action, or individual and collective strategies, were reinstated in the studied reality. The later developments of anthropological research bear witness, as much in France (Balandier, 1980; Bourdieu, 1980; Dumont, 1983; Godelier, 1984) as in the United States (Boon, 1982; Sahlins, 1984) or in Britain (Giddens, 1984), by recognizing in a more or less contrasting way their debts to that theoretical renewal. The principal contribution of social history and anthropology during the last 30 years or so is precisely to have reintroduced, with considerable success, the socialized agent and to have shown the historical transformations by taking into account the agency which contributes to produce them and, finally, to historicize the concept of culture.

These days very few anthropologists are prepared to think of cultures and societies simply as structured combinations of elements, and the tendency to confer more agency on ‘structures’ than on humans, as it has often been pointed out, is one of the principal features of Lévi-Strauss’s structural version of anthropology, which must seem at the very least quite problematic. Yet the return to Lévi-Strauss’s provocative distinction between ‘historical temperatures’, as a heuristic rather than taxonomic distinction between ‘cultural eras’, maintains a continuing utility and can be argued to be a workable methodology for anthropological investigation. If we are correct in this assumption, then the oppositions between structure and event, or action and agency, can finally be regarded more as analytical conventions than as conditions of cultural and social reality. This may be all the more important to guard against the way in which academic ‘ways of seeing’ become reified and congealed, for we can move forward to make more of the need for analytical fluidity and theoretical hybridity, in which the potential symbiosis of seemingly contradictory approaches becomes important.

Actually, a more closely argued and clearly defined theoretical framework could be designed by means of a careful combination of Lévi-Straussian structural analysis, cognitive commitments, borderland epistemology, and the politics of agency and practice. Though this must claim further examination at another time, it seems that this movement is now providing an instance in which our theoretical understanding of the world can be made to progress, alongside the overarching revival of the kind of vigorous theoretical debate that tended to disappear from the field in the 1980s. In particular, a critical understanding of the interplay of ideology and culture as political instruments of hegemony and power, which seems particularly good at revealing a new and unsuspected meaning related to unified visions of the integration of knowledge, could be pointing toward some neglected but potentially vigorous developments in current social and anthropological theory that may present not only new empirical material and substantive findings, but also generate novel conceptual and theoretical syntheses to initiate innovative research directions.
The Future of Anthropology

One likely innovative direction may lie in the hope of improving historical analysis within anthropology. This may be achieved, for instance, by taking Lévi-Strauss’s mytho-logical analysis very seriously, in particular his claim that myths are ‘machines for the suppression of time’ (1964: 24 [Eng. 1969: 16]). The myths generate the appearance of stability, an illusion of timelessness that cannot be affected by changes in the world, but they do so by means of their ceaseless transformations which, from the analyst’s point of view, mark their very historicity as objects. This is obviously not because mythic narratives preserve details of ancient cultural patterns, nor that they have been preserved unchanged through the generations and hence give us access to how ancestral people thought. Instead, as Peter Gow argues in his *An Amazonian Myth and Its History* (2001), which is an excellent ethno-graphic demonstration of Lévi-Strauss’s correct claim, this is because myths are themselves historical products that carry within themselves the traces of what they seek to erase, that is, their own former states. Therefore, if we accept that myths are operating to suppress time, we can look to the very myths themselves to tell us what historical events and processes they might be seeking to obliterate. If the myths are indeed seeking to ‘come to terms with history’, and seeking ‘to re-establish equilibrium at the level of the system’ (Lévi-Strauss, 1971: 543 [Eng. 1981: 607]), it is in that equilibrium that we might begin to look for the history that we seek.

Lévi-Strauss constructed his scientific work through the distinction between 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, another innovative direction must be related to the development of some new and invigorated trends of the 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 (Maranda, 2001; Scubla, 1998). Such a paradigm 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 border-land 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.

More than anything else, it can be argued that the new morphodynamic epistemological project of the structural paradigm in current anthropology might represent a good deal beyond the general discourse in social science, which speaks authoritatively about identity shifting, fluidity, hybridity and the like, but nevertheless without any conclusive certainty nor the least precision sufficient to clearly distinguish exactly how identity changes occur in the first instance. Social identities may be ambivalent and fluid as much as symbols, myths, sensory qualities and arts once seemed to be, before the
advent of Lévi-Strauss’s theory. Hence, to gain more precision and rigour in this respect, it may be worthwhile moving towards considering the very heart of transformational analysis and acknowledging what the structural approach can offer to critical political and historical approaches. Our understanding of ‘reflexivity’ may be strengthened if we start to consider that it may be not so much a question of ambiguous or paradoxical human conditions, but rather the result of a ‘transformational twist’ at the crossborder of boundary conditions. Arguably, a canonically informed concept of border-crossing and agency may warn against allowing facile ideas such as ‘at borders, two sides equal one hybrid’, which replace analysis and so neglect the very real power of the dominant majority to further ideological and political projects.

Indeed, the inversion of terms and relations implied by the canonical formula for the analysis of myth aims to account for an extremely significant phenomenon which I believe is of particular interest for contemporary social theory. Although it remained for a long time incomprehensible, thanks to formal logic, topology, mathematics and cognitive science, a very dynamic vision has been obtained of canonical forms. In fact, to understand the requirements and issues of the canonical concept it was necessary to obtain conceptual and technical tools, constitute an axiological ontology and work out a morphodynamic approach, which made it possible to detect an absolute logical operator suitable to transcend the level of its initial formulation and deploy an unsuspected internal diversity, like a sort of genuine logical machine generative of open-ended meaning.

These generative virtues, the so-called ‘double twist’, are now considered and indeed made comprehensible as an anticipated formalization of catastrophe models in new mathematics (Petitot, 1988, 2001). I believe they could reasonably stand for the notions of development and global change as understood in contemporary social science, for the lack of which Lévi-Strauss has been vehemently but unduly criticized. The very idea of the canonical relation in the study of myth involves the operating condition of the crossing of a spatiotemporal boundary defined in linguistic, cultural, territorial, ecological, social or whatever terms, but which is always a boundary condition. A catastrophist operation of this kind is required to show that a series of variations inherent in the myths of a given people cannot be looped without passing by myths belonging to another people, which are in a relation of inverse transformation with the former. Eventually, I believe the requirement of a boundary condition in canonical formalization can anticipate the very politics of agency and practice, for the lack of which structural analysis has been undeservedly disregarded.

Fundamentally, if the majority of commentators, be they admirers or detractors, retained from the structural analysis of myth only the capacity to disclose stable, common and probably universal frameworks, Lévi-Strauss preferred to seek rules that will ideally make it possible to generate, starting from an unspecified myth of reference, the finite or infinite whole of all other real or possible myths. If we agree with this epistemological insight, as an
ultimate innovative direction I can argue that we may establish a more sophisticated approach following structural procedures of transformational analysis and formalization. This means, even if nobody has expressed it before in so direct a way, that we may be correct in asserting that we can deduce in theory – from an empirical situation of identity construction and social change, or ethnic identification and social conflict, transcribed in canonical way – the eventually hidden reality of an external boundary, borderland existence, border-crossing movement or, namely, ideological agency. This reality will necessarily be organized around a specific identity element or social hierarchy associated with the value of one identity moment, human agency and social action, but having inverse propositional characteristics of the same moment, course of action and agency. And the same the other way around: new identity constructions and social changes can be anticipated as a result of the mediating logical operation of a boundary condition, and we will be able to set off in search and appreciation of them.

Note
1. Quotes are from the original works in French. In order to maintain a chronological method, the first date is normally that of the original edition, followed by the date of the edition referred to, in square brackets. Following the French page reference, the date and page numbers of English translations of the works are also given in square brackets, though the English translation may not be always strictly followed.

References
Lévi-Strauss, Claude (1967 [1949]) *Les Structures élémentaires de la parenté*, 2nd


Albert Doja was elected, in 2008, a full ordinary member of the Albanian Academy of Sciences. He is Professor of Anthropology and Head of the Department of Humanities and Social Sciences at the University of New York in Tirana; Honorary Research Fellow at the Department of Anthropology, University College London; and has also been on secondment to the United Nations Development Programme under the Brain Gain Initiative as the Deputy Rector of the newly founded University of Durres in Albania. In 1993 he was awarded, with distinction, a PhD in Social Anthropology from the École des Hautes Études en Sciences Sociales in Paris; and, in 2004, a Professorial accreditation (Habilitation à Diriger des Recherches) in Sociology and Anthropology from the University of Paris-5, Sorbonne. Among his books are Naître et grandir chez les Albanais: la construction culturelle de la personne (Paris: L'Harmattan, 2000) and The Politics of Religion in the Reconstruction of Identities (Bilingual print from AIIS Press, 2001). He has around 70 articles published in peer-reviewed journals and has conducted extensive fieldwork in Albania, France, England, Ireland, Turkey, Italy, Greece and Switzerland. Special interests include the politics of identity and religion, comparative religions and ideologies, gender and kinship, health and well-being, ethnicity and nationalism, the anthropology of history, anthropological and cultural theory, structuralism and post-structuralism.