BY THE SAME AUTHOR

Death, Property and the Ancestors, Stanford University Press, 1962
Technology, Tradition and the State in Africa, Oxford University Press, 1971

The Myth of the Bagre, Clarendon Press, 1972
Production and Reproduction, Cambridge University Press, 1977

EDITED:

The Developmental Cycle in Domestic Groups, Cambridge University Press, 1958
Succession to High Office, Cambridge University Press, 1966
Salaga: the Struggle for Power (with J. A. Brimah), Longmans, 1967
Literacy in Traditional Societies, Cambridge University Press, 1968
Bridewealth and Dowry (with S. J. Tambiah), Cambridge University Press, 1973

The Character of Kinship, Cambridge University Press, 1974
Changing Social Structure in Ghana, International African Institute, 1975

Family and Inheritance: Rural Society in Western Europe, 1200-1800 (with J. Thirsk and E. P. Thompson), Cambridge University Press, 1976

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Preface

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December, 1976

JACK GOODY

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1. Evolution and communication

Emotion is completely Negro as reason is Greek.

Leopold Senghor

In attempting to refute the evaluation to which black reality had been subjected, Negritude adopted the Manichean tradition of European thought and inflicted it on a culture which is most radically un-Manichean. It not only accepted the dialectical structure of European ideological confrontation but borrowed from the very components of its racist syllogism.

Wole Soyinka, *Myth, Literature and the African World*

The way in which modes of thought have changed over time and space is a subject on which most of us have speculated at some time or other. It may have been to arrive at some idea of why Indians behave as they do (or we think they do), why African art differs from that of Western Europe, or when we look at the picture in historical perspective) what lay behind developments in the Ancient Middle East, in Greece or in Renaissance Europe, where new ways of thinking appear to have replaced the old. And the same kinds of question have given rise to much discussion by anthropologists, sociologists, psychologists, historians and philosophers about the shift from magic to science, the growth of rationality, and a host of similar topics. But the problem has been complicated both by the categories and by the framework that have been used.

The trouble with the categories is that they are rooted in a we/they division which is both binary and ethnocentric, each of these features being limiting in their own way. Sometimes we are still employing the simplistic categories of our folk taxonomy; where these have been abandoned, we substitute some polysyllabic synonym. We speak in terms of primitive and advanced, almost as if human minds themselves differed in their structure like machines of an earlier and later design. The emergence of science, whether seen as occurring at the time of the
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Renaissance in Europe, in Ancient Greece, or earlier still in Babylonia, is held to follow a pre-scientific period, where magical thought predominated. Philosophers describe this process as the emergence of rationality from irrationality (Wilson 1970), or of logico-empirical from mythopoetic thinking (Cassirer 1944) or of logical from pre-logical procedures (Lévy-Bruhl 1910). More recently, others have attempted to get over the difficulties raised by a purely negative definition of the situation (e.g. rational–irrational) by means of more positively phrased dichotomies, the wild and domesticated (or cold and hot) thinking of Lévi-Strauss (1962), and the closed and open situations of Robin Horton (1967), applying Popper.

The trouble with the framework has been that it is either largely non-developmental or else simplistically so. It has been non-developmental because the anthropologists and sociologists interested in these questions have tended to set aside evolutionary or even historical perspectives, preferring to adopt a kind of cultural relativism that looks upon discussions of development as necessarily entailing a value judgement on the one hand and as over-emphasising or misunderstanding the differences on the other. Such objections are found not only on the appealing premise that all men are equal. They also stem from the undoubtedly difficulty that speculations upon developmental sequences often create for the analysis of a particular set of data. Such problems arise whether the data is derived from a field study or from a historical society, from the present or from the past. If I assume that all societies have once had mythological forms of the kind found in South America, then I may well be led to see the Greek corpus of 'sacred tales' as the faded fragments of some former glory (Kirk 1970). If I assume that matrilineal societies have always preceded patrilineal ones, then I may be led to interpret the prominent part played by the mother's brother in a patrilineal society as a survival from an earlier period rather than examining his role in relation to the existing social system.

In accepting the functionalist and structuralist critiques, in acknowledging the necessity of proving rather than assuming difference, it is only too easy to set aside the developmental questions, as pseudo-historical, as 'evolutionary', as speculative. Yet having done so, we nevertheless fall back upon a mode of discourse, a set of categories, such as primitive and advanced, simple and complex, developing and developed, traditional and modern, pre-capitalist, etc. which implies change of a more or less unidirectional kind. Any resort to comparative work necessarily raises the evolutionary issue. Even specific field studies of contemporary social life in the Third World cannot dismiss the question of short-term and long-term change. These problems are intrinsic to an understanding of our individual experience and of the world at large, both in space and in time.

Indeed, though contemporary social scientists have been wary of a developmental framework, much of the best sociology has employed just this starting point. One only has to mention the work of Comte, Marx, Spencer, Weber and Durkheim (not to mention the more obvious anthropological candidates, Maine, Morgan, Tylor, Robertson Smith and Frazer) which has displayed both comparative and evolutionary interests. The work of Spencer and Durkheim shows an extensive knowledge of writings about non-European societies; Weber has a similar command of Asia. However, even those who have displayed these interests have often derived them from a somewhat ethnocentric (but none the less important) concern associated with the rise of modern industrial society; this centred upon a question which Parsons has recently reiterated: 'Why, then, did the breakthrough to modernization not occur in any of the "Oriental" advanced intermediate civilizations?' (1968:4). Once again this question implies a binary opposition between 'our' type of society and 'theirs'; and its answer requires that we search the world for positive and negative cases to confirm our ideas about the relevant factors. There is nothing wrong with the search as such, but we need to recognise the ethnocentric nature of its starting point and the fact that the dichotomising of 'we' and 'they' in this manner narrows the field both of the topic and of its explanation.

It pushes us once again into the use of binary categories and while it introduces developmental perspective, it attempts to look for a single breaking point, a Great Divide, though whether this jump occurred in Western Europe in the sixteenth century, or Greece in the fifth century B.C., or in Mesopotamia in the fourth millennium, is never very clear.

Of no topic is this truer than studies of the general development of the human mind or thought. Here we face squarely the dilemma of the participant observer. We look at the question not as an investigator examines geological layers, but from the inside outwards. We start with the conviction that there are important differences between ourselves (variously defined) and the rest. Otherwise how come that they are under-developed (or developing) and we are developed (or over-developed)? Or to revert to the earlier classification, why are they primitive and we advanced? We try to state the nature of these differences in very general terms — the move from myth to history, from magic to science, from status to contract, cold to hot, concrete to abstract, collective to individual, ritual to rationality. Such movement inevitably tends to be phrased not only in terms of process but of progress too; in other words it acquires a value element, a procedure
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that tends to distort the way we perceive the kind of development that has occurred, especially when this is seen in such very general terms as, for example, in Lévy-Bruhl's division into pre-logical and logical mentalities. The fact that the questions concerning human thought are posed in such terms means that satisfactory evidence is difficult to obtain; or, to look at the enquiry from another angle, most evidence can be made to fit the gross categories. As for the framework, writers wobble uneasily between developmental and non-developmental standpoints. But again the differences are usually seen as being dualistic in character, leading to the assumption of a global 'philosophie indigène', a single 'témoignage ethnographique', in opposition to our own.

One recent contribution in this field is Lévi-Strauss' influential study of La Pensée Sauvage, translated into English as The Savage Mind, which follows the interesting trail blazed by Durkheim's work in 'primitive classification' (1903) and which illustrates all of the dilemmas mentioned above. One needs to say straight away that in Lévi-Strauss' analysis of the human mind in different cultures he stresses both differentiation and similarity. The second line of thinking is present in La Pensée Sauvage as well as in the three volumes entitled Mythologiques and is epitomised in his essay on 'The Concept of Primitiveness' where he writes: 'I see no reason why mankind should have waited until recent times to produce minds of the calibre of a Plato or an Einstein. Already over two or three hundred thousand years ago, there were probably men of a similar capacity, who were of course not applying their intelligence to the solution of the same problem as these more recent thinkers; instead they were probably more interested in kinship' (1968:351). The sentiment is unexceptional (it is difficult to believe that anyone could think otherwise, at least if we lessen the two or three hundred thousand to fifty thousand, the emergence of Homo sapiens): and we do avoid the radical dichotomy. But we do so apparently by rejecting all consideration of the specific factors, including intellectual tradition, institutional setting and mode of communication, that lay behind the emergence of a Plato or an Einstein. We move from the crude dichotomy to an ahistorical unity.

The starting point of The Savage Mind, on the other hand, is a dichotomy of 'mind' or 'thought' into savage (or 'prior') and domesticated. This opposition has many of the characteristics of the earlier 'we–they' division into primitive and advanced, even though the author tries to set aside some of its implications. He attempts to give the new dichotomy a more specific historical base, seeing 'savage' knowledge as characteristic of the neolithic age and the domesticated variety as dominating the modern period.

At the beginning of this work, the author calls attention, as have many other writers, to the complexity of the classifications, the taxonomies, the word-sets, that appear in the languages of 'simple' societies, and he rightly criticises the view, which he attributes to Malinowski, that these systems are merely means of satisfying 'needs'. Malinowski, he says, claimed that 'primitive peoples' interest in totemic plants and animals was inspired by nothing but the rumbling of their stomachs' (1966:3). He argues instead that 'the universe is an object of thought at least as much as it is a means of satisfying needs' (1966:9).

A few pages later, the supplement becomes an alternative. Writing of the 'science of the concrete' Lévi-Strauss denies that therapeutic classification has a 'practical effect'. It meets intellectual requirements rather than or instead of satisfying needs. He goes on: 'The real question is not whether the touch of a woodpecker's beak does in fact cure toothache. It is rather whether there is a point of view from which a woodpecker's beak and a man's tooth can be seen as "going together" (the use of this congruity for therapeutic purposes being only one of its possible uses), and whether some initial order can be introduced into the universe by means of these groupings. Classifying, as opposed to not classifying, has a value in itself, whatever form the classification may take' (p. 9).

The argument of this passage, while in some ways highly appealing (when the intellect is brought into the picture, man is not simply the creature of material needs), is also rather deceptive. In the first place, it depends on a special understanding of the key words. 'Needs' here are clearly to be interpreted as largely physical, otherwise why would they not include intellectual and emotional requirements, as is the case in common speech? I cannot see any justification for treating these aspects as alternatives; the curing of the toothache is very often an intellectual task in simple societies, one that involves a readjustment of man's relationship not simply with his physical environment but with the moral and supernatural universe; indeed the universe is rarely if ever divided into a pragmatic and a non-pragmatic side. Such a division is another imposition of Western observers upon the non-European world, frequently out of tune with the concepts of both worlds, but especially of the latter.

If this is so, 'the real question' (but 'real' to whom?) cannot be phrased in an either/or fashion. As we have seen above and as we see from the parenthetical statement that '(the use of this congruity for therapeutic purposes being only one of its possible uses)', Lévi-Strauss...
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is himself in two minds about placing 'needs' and 'classifications' as alternatives. Clearly they are not. They supplement one another. Nevertheless, Lévi-Strauss insists upon seeing the search for order as dominant over the search for security.

It is difficult to see how one would begin to weigh the two in the balance. From the actor's own statements, it is usually the search for security that dominates, and there would seem great dangers in a neglect of the pragmatic orientations of the individual (interpreted in the widest sense). This is not of course to deny the intellectual 'search for order'. But if this means classification, such a system is surely inherent in the use of language itself and whatever potentials existed in the primate world, it was this new instrument of communication that vastly extended the process of conceptualisation. There can therefore be no question of 'not classifying', only of differently classifying. The implied opposition has no substance.

There is another, associated, dichotomy that creates difficulties. Lévi-Strauss rightly stresses the 'scientific' element in primitive society — a point Malinowski and others had established (though it is surprising now to think that this was ever necessary). And he rightly sees classification (or order) as being characteristic of all thought (p. 10) — though this perhaps means only that the development of both derives from the use of language. But in discussing the difference between the thought of man in primitive and advanced societies (which is after all the subject of his enquiry) he comes up against what he sees as a major paradox, and one which touches upon the distinction between magic and science, and their association with primitive and advanced respectively. 'Scientific knowledge', 'modern science', he notes, dates back only a few centuries; it was however preceded by Neolithic achievement. 'Neolithic, or early historical, man was therefore the heir of a long scientific tradition.' But from Lévi-Strauss' standpoint, the inspiration behind this achievement was different from that of post-Renaissance man. His reason for this assumption is phrased as follows: 'Had he, as well as all his predecessors, been inspired by exactly the same spirit as that of our own time, it would be impossible to understand how he could have come to a halt and how several thousand years of stagnation have intervened between the Neolithic revolution and modern science like a level plain between ascents' (p. 15). This paradox he sees as having but one solution: there must be 'two distinct modes of scientific thought'. Having set up a historical problem ('Neolithic' as against 'modern' science), he then goes on to reject the 'evolutionary' implications of his position. These are certainly not a function of different stages of development of the human mind but rather of two strategic

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levels at which nature is accessible to scientific enquiry: one roughly adapted to that of perception and the imagination: the other at a remove from it' (p. 15).

But although he tries to set aside earlier views, the way he describes these two forms of knowledge displays a very definite link with early dichotomies into primitive and advanced, a dichotomy which becomes 'wild' (savage, sauvage) and domesticated (domestiquée) in his own terminology and which refers quite specifically, as in the title of the book, to the pensée (thought, mind) of the actors involved.

At various times the dichotomy takes the following forms, explicit or implicit:

<table>
<thead>
<tr>
<th>Domesticated</th>
<th>Wild</th>
</tr>
</thead>
<tbody>
<tr>
<td>'hot'</td>
<td>'cold'</td>
</tr>
<tr>
<td>modern</td>
<td>neolithic</td>
</tr>
<tr>
<td>science of the abstract</td>
<td>science of the concrete</td>
</tr>
<tr>
<td>scientific thought</td>
<td>mythical thought</td>
</tr>
<tr>
<td>scientific knowledge</td>
<td>magical thought</td>
</tr>
<tr>
<td>engineer(ing)</td>
<td>bricoleur(-age)</td>
</tr>
<tr>
<td>abstract thought</td>
<td>intuition/imagination/perception</td>
</tr>
<tr>
<td>using concepts</td>
<td>using signs</td>
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<tr>
<td>history</td>
<td>atemporality;</td>
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<td></td>
<td>myths and rites</td>
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To this dualistic view of the world Lévi-Strauss returns at the very end of his book, showing how intrinsic it is to his general argument. 'Certainly the properties to which the savage mind has access are not the same as those which have commanded the attention of scientists. The physical world is approached from opposite ends in the two cases: one is supremely concrete, the other supremely abstract; one proceeds from the angle of sensible qualities and the other from that of formal properties.' Instead of meeting, these two courses led to 'two distinct though equally positive sciences: one which flowered in the neolithic period, whose theory of the sensible order provided the basis of the arts of civilisation (agriculture, animal husbandry, pottery, weaving, conservation and preparation of food, etc.) and which continues to provide for our basic needs by these means; and the other, which places itself from the start at the level of intelligibility, and of which contemporary science is the fruit' (p. 269).

This dichotomy follows traditional thinking and attempts to account for supposed differences between 'we' and 'they' in a blanket fashion. On one hand, it takes up a relativistic stance and tries to get round the 'evolutionary' implications by insisting that (a) the courses are 'alternatives', and that (b) they are 'crossing' in mid-twentieth century. At the
same time it refers to supposed historical changes, that is, to the fundamental discontinuity in human knowledge as pursued up to the end of the Neolithic and as pursued in modern times. This discontinuity is both temporal (there is a plateau in between) and causal (the inspiration is different).

But while the rhythm of human inventiveness has often been uneven, it does not appear to display the bimodal pattern that Lévi-Strauss assumes. Just as there were many important inventions well before the Neolithic (speech, tools, cooking, weapons) so too there were many between the Neolithic and the modern periods (metallurgy, writing, the wheel). In recent writings on prehistory, the idea of a sudden revolution produced by the domestication of plants and animals has been replaced by a more gradual progression of events which take one back to the last inter-glacial. Development has been more gradual than was earlier thought but in any case Lévi-Strauss’ account appears to overlook the very great achievements of the ‘Urban Revolution’ of the Bronze Age, the developments of the classical period in Greece and Rome, and the advances of twelfth-century Europe and of early China. I say ‘appears to overlook’ because the author is clearly aware of these developments in human culture and in a later volume he specifically refers to the shift from myth to philosophy in Greece as a precursor to science (1973:473). It is rather that, like the rest of us, he is a victim of the ethnocentric binaryism enshrined in our own categories, of the crude division of world societies into primitive and advanced, European and non-European, simple and complex. As general signposts these terms may be permissible. But to build on so slender a base the idea of two distinct approaches to the physical universe seems scarcely justified.

I certainly do not wish to deny that there are differences in the ‘thought’ or ‘mind’ of ‘we’ and ‘they’, nor that the problems which may have concerned many observers, among them Durkheim, Lévy-Bruhl and Lévi-Strauss, are of no significance. But the way they have been tackled seems open to a whole range of queries. Perhaps I may put the central difficulty I find in terms of personal experience. In the course of several years living among people of ‘other cultures’, I have never experienced the kinds of hiatus in communication that would be the case if I and they were approaching the physical world from opposite ends. That this experience is not unique seems apparent from the contemporary changes occurring in developing countries where the shift from the Neolithic to modern science is encapsulated into the space of a man’s lifetime. The boy brought up as a bricoleur becomes an engineer. He has his difficulties, but they do not lie at the level of

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So even if the message cannot reasonably be reduced to the medium, any changes in the system of human communication must have great implications for the content. Indeed, our starting point must be that the acquisition of language, which is an attribute of mankind alone, is basic to all social institutions, to all normative behaviour.3

Many writers have seen the development of languages as a prerequisite of thought itself; the Russian psychologist, Vygotsky, characterised thought as ‘inner speech’. We do not need to go into this argument, which is partly a definitional problem; it is not a question of establishing a boundary, but of determining the extension of cognitive activity that language permits and encourages. It is worth noting that the archaeological evidence of extensive human culture, as depicted in the wall paintings of the Upper Palaeolithic and in the burial practices of the Neanderthals, coincides with the appearance of a man with the larger brain that would seem to be necessary for the type of communicative and storage systems associated with speech.

Of course, the existence of language does tend to dichotomise. You either have it or you don’t. Human languages appear to display few differences in their potentiality for adaption to development. Whatever differences there may be in the language of ‘primitive’, ‘intermediate’ and ‘advanced’ peoples, apart from vocabulary, these factors seem to have little effect in inhibiting or encouraging social change. In making this point, I am deliberately setting aside certain implications of Benjamin Lee Whorf’s seminal comparison of what he called Standard Average European with the Hopi of North America, where Whorf sees aspects of the world view and cognitive processes of these societies as being intimately linked to grammatical structures. I am also discounting the multitude of anthropological analyses that tend to treat man as imprisoned by the concepts he has produced and hence fail to account for the generative aspects of his culture.

The dichotomy between those with language and those without has little to do with the kind of differences that concern us here. However,
it does suggest that an examination of the means of communication, a study of the technology of the intellect, can throw further light on developments in the sphere of human thinking. For those studying social interaction, developments in the technology of the intellect must always be crucial. After language the next most important advance in this field lies in the reduction of speech to graphic forms, in the development of writing. Here we can see not one single leap but a series of changes, many of them spread through a process of diffusion that can be reconstructed in broad terms and which culminated in the relatively simple form of alphabetic writing in widespread use today, and whose proposed adoption in China by Lenin once described as the revolution of the East. Of course changes in the means of communication are not the only significant factor; the system or mode of communication also includes the control of this technology, whether it is in the hands of a religious or political hierarchy, whether indeed it is a scribal or 'demotic' system. Nevertheless differences in the means of communication are of sufficient importance to warrant an exploration of their implications for developments in human thought; and, in particular, to see whether they can give us a better account of observed differences than the dichotomies we have earlier rejected. The challenge then is not merely to criticise the existing framework (that is never very difficult) but to offer an alternative account that explains more.

If we think of changes in communication as being critical, and if we see them as multiple rather than single in character, then the old dichotomy between primitive (or 'prior') and advanced disappears, not only for 'thought' but for social organisation as well. For the introduction of writing has had a great influence on politics, religion and economics; kinship institutions seem influenced only in a secondary way, for reasons that will be mentioned shortly. In saying this I am not attempting to put forward a simple, technologically determined, sequence of cause and effect; there are too many eddies and currents in the affairs of men to justify a moncausal explanation of a unilinear kind. On the other hand, there is a halfway house between the choice of a single cause and the complete rejection of causal implications, between the diffuseness of structural causality and of functional fit and the selection of a single material factor as the dominant or even determinate cause; there is the whole area of causal arcs, of feedback mechanisms, of the attempt to weight a plurality of causes. Regarding the nature of these causal factors, a major line of thinking in sociology and anthropology, especially in that which follows the Durkheimian tradition, has tended to neglect the technological changes that other disciplines, such as prehistory, have found so significant. There were two reasons for this trend. One was the attempt to establish sociology as a distinct subject dealing with a special category of facts deemed 'social'; in social anthropology there was a parallel attempt (deriving from the same Durkheimian source) to steer clear of the study of 'material culture' and concentrate exclusively upon the 'social'. The second reason lay in Weber rather than in Durkheim; his qualifications to Marx's thesis involved a partial shift in emphasis from production to ideology, from 'infrastructure' to 'superstructure', a trend that has become increasingly dominant in some later social theory.

The significance of technological factors has to be judged independently of such ideological considerations. In the cognitive sphere they are important for two special reasons. We are dealing with developments in the technology of communicative acts, a study of which enables us to make a bridge between various branches of knowledge interested in the science of society, in its cultural products and in the instruments of cultural production that it has at its command. Secondly a stress upon the implications of changes in the technology of communications can be seen as an attempt to discuss in more manageable terms a topic that has become increasingly obscure and scholastic.

In an earlier paper (1963) Watt and I tried to lay out some of the features we saw as being closely linked to the advent of writing and in particular to the invention of the alphabetic system that made widespread literacy possible. We suggested that logic, our logic, in the restricted sense of an instrument of analytic procedures (and we did not give the same overwhelming value to this discovery as Lévy-Bruhl and other philosophers) seemed to be a function of writing, since it was the setting down of speech that enabled man clearly to separate words, to manipulate their order and to develop syllogistic forms of reasoning; these latter were seen as specifically literate rather than oral, even making use of another purely graphic isolate, the letter, as a means of indicating the relationship between the constituent elements. It is a suggestion consistent with Luria's research in Central Asia where he found schooling associated with an acceptance of the highly artificial assumptions on which logical syllogisms were based (Scribner and Cole 1973:554). A similar argument applies to the law of contradiction, which Lévy-Bruhl deemed absent in primitive societies. From one standpoint his claim was nonsense. Yet it is certainly easier to perceive contradictions in writing than it is in speech, partly because one can formalise the statements in a syllogistic manner and partly because writing arrests the flow of oral converse so that one can compare side by side utterances that have been made at different times and at
different places. Hence there is some element of justification behind Lévy-Bruhl's distinction between logical and pre-logical mentality, as well as behind his discussion of the law of contradiction. But the analysis is totally wrong. Because he fails to consider the mechanics of communication, he is led to make wrong deductions concerning mental differences and cognitive styles.

The same kinds of consideration apply to numbers as apply to other words. The development of Babylonian mathematics also depended upon the prior development of a graphic system, though not an alphabetic one. The relationship between writing and mathematics holds true even at an elementary level. In 1970 I spent a short time revisiting the LoDagaa of Northern Ghana, whose main contact with literacy began with the opening of a primary school in Birifu in 1949. In investigating their mathematical operations I found that while non-school boys were expert in counting a large number of cowries (shell money), a task they often performed more quickly and more accurately than I, they had little skill at multiplication. The idea of multiplication was not entirely lacking; they did think of four piles of five cowries as equalling twenty. But they had no ready-made table in their minds by which they could calculate more complex sums. The reason was simple, for the 'table' is essentially a written aid to 'oral' arithmetic. The contrast was even more true of subtraction and division; the former can be worked by oral means (though literates would certainly take to pencil and paper for the more complex sums), the latter is basically a literate technique. The difference is not so much one of thought or mind as of the mechanics of communicative acts, not only those between human beings but those in which an individual is involved when he is 'talking to himself', computing with numbers, thinking with words.

There are two other general points I want to make about the mental processes involved. I remarked that most LoDagaa were quicker in counting large sums of cowries. Indeed my method caused some amusement since I was seen as moving the shells in an uneconomic manner, one by one, I later observed that only schoolboys, accustomed to the more individualising ways of 'abstract' counting, used the same technique. When a normal bridewealth payment adds up to 20,000 cowries, counting can be a time-taking procedure. The LoDagaa themselves recognised a special mode of 'cowrie counting' (libie pla soro), where they moved first a group of three, then two, to form a pile of five. Apart from being a fraction of twenty, which was the base for higher calculations, five represented a number which a person could check by a glance as he moved his hand forward again to collect the next group of cowries. The possibility of such a double check clearly increased the accuracy of the computation. Four piles of five were then aggregated into a pile of twenty; five twenties into a hundred, and so on till the bridewealth was counted. But the point I want to make has nothing to do with the speed or accuracy of counting, but with the relative concreteness of the procedure. When I first asked someone to count for me, the answer was 'count what?'. For different procedures are used for counting different objects. Counting cows is different from counting cowries. We have here an instance of the greater concreteness of procedures in non-literate societies. It is not the absence of abstract thought, as Lévy-Bruhl believed; nor is it yet the opposition between the 'science of the concrete' and the 'science of the abstract', of which Lévi-Strauss speaks. The LoDagaa have an 'abstract' numerical system that applies as well to cowries as to cows. But the ways in which they use these concepts are embedded in daily living. Literacy and the accompanying process of classroom education brings a shift towards greater 'abstractedness', towards the decontextualisation of knowledge (Bruner et al. 1966:62), but to crystallise such a developmental process into an absolute dichotomy does not do justice to the facts either of 'traditional' society, or of the changing world in which the LoDagaa now find themselves.

The other general point is this. There are some specialist groups of traders, such as the overseas Yoruba, whose ability to calculate relatively complex sums is linked to their role as distributors of European goods, breaking down bulk items into small packages. Such transactions require a careful consideration of the profit and the loss, and this attention the Yoruba certainly give. How far their ability in this direction is a feed-back of literate achievement is difficult to know; the 'table' is essentially a graphic device, yet it is used as an instrument of oral calculation. Among the Yoruba this ability to calculate is normally transmitted in 'family' lines; it is subject to the limitations of oral transmission, which tends rapidly to incorporate or reject outright a new element in the body of knowledge. I have already mentioned that the absence of writing means that it is difficult to isolate a segment of human discourse (e.g. mathematical discourse) and subject it to the same highly individual, highly intense, highly abstract, highly critical analysis that we can give to a written statement. But there is also a further point, for which I provide a simple illustration to show the difference made by writing. If an individual Yoruba were to develop a new mode of calculation, the chance that this creative achievement would survive him depends primarily upon its 'utility'. I do not give this term the narrow meaning assigned by Lévi-Strauss in his dismissal of Malinowski (1966:3) but simply intend to infer that it is a now or
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never matter; there is no chance that his discovery will be acclaimed at a later date; there is no store for subsequent recall.

This is no trivial consideration; what happens here is part and parcel of the tendency of oral cultures towards cultural homeostasis; those innumerable mutations of culture that emerge in the ordinary course of verbal interaction are either adopted by the interacting group or they get eliminated in the process of transmission from one generation to the next. If a mutation is adopted, the individual signature (it is difficult to avoid the literate image) tends to get rubbed out, whereas in written cultures the very knowledge that a work will endure in time, in spite of commercial or political pressures, often helps to stimulate the creative process and encourage the recognition of individuality.

The growth of individualism is another of the vague generalities applied to the cognitive development of mankind. Once again, there is something to be explained. Durkheim tried to do so by means of another dichotomy, the shift from mechanical to organic solidarity; the growth of the division of labour meant the increasing differentiation of roles; advanced society was characterised by heterogeneity as against homogeneity and this state of affairs was reflected in the conscience collective of uncomplicated societies, and in the kinds of solidarity bond that existed between persons and groups.

Again there is something to the Durkheùnian argument. But the process he describes is more likely to produce a series of partially differentiated sub-groups rather than the kind of activity usually associated with the growth of individualism in the West. There was certainly more than one factor involved in this vaguely defined process; but the changes in human communication that followed the extension of alphabetic literacy in Greece and the introduction of the printed word in Renaissance Europe were surely important factors. Yet they are given no consideration at all in his argument.

Another common theme in differentiating between societies, one that is discussed by Lévi-Strauss as well as by Cassirer before him, has to do with the contrast between myth and history (Goody and Watt 1963:321–6). There is, of course, a simple-minded sense in which history is tied to the use of documentary material and hence is inseparable from literate cultures; before that, all is prehistory, the prehistory of societies dominated by myth. Without going into the many ambiguities involved in the definition of myth, there is a sense in which this concept often involves a backward look at that which is either untrue or unverifiable. And in the most literal sense the distinction between mythos and historia comes into being at the time when alphabetic writing encouraged mankind to set one account of the universe or the pantheon beside another and hence perceive the contradictions that lie between them. There are thus two senses in which the characterisation of the ‘savage mind’ as ‘pre-historical’ or atemporal relates to the distinction between literate and pre-literate societies.

While the focus of this book is specifically upon cognitive factors, it is worth indicating two other sociological discussions that would gain from a consideration of the consequences of the changes that have taken place in systems of communicative acts, even though these relate to social institutions. The written word does not replace speech, any more than speech replaces gesture. But it adds an important dimension to much social action. This is especially true of the politico-legal domain, for the growth of bureaucracy clearly depends on a considerable degree upon the ability to control ‘secondary group’ relationships by means of written communications. Indeed it is interesting to note that the terms in which Cooley originally defined the primary group are very close to those used for pre-literate societies. ‘By primary group, I mean those characterised by intimate face-to-face association and co-operation. The result of intimate association, psychologically, is a certain fusion of individualities in a common whole, so that one’s very self, for many purposes at least, is the common life and purpose of the group’ (1909:23). A face-to-face group has no great need of writing. Take the example of the domestic group, the prototypical primary group, which brings us back to the reasons why writing has had little direct influence on kinship, since intercourse between kin is largely oral and often non-verbal.

Other social institutions are affected more directly. I mentioned above the problem of communication in large states. This is not the occasion to enter upon an extended discussion of the links between the means of communication and the political system. Max Weber pointed out that one of the characteristics of bureaucratic organisations was the conduct of official business on the basis of written documents (Weber 1947:330–2; Bendix 1960:419). But it needs stressing that some of the other characteristics of bureaucracy he mentions are also closely related to this fact. The depersonalisation of the method of recruitment to office often involves the use of ‘objective’ tests, that is, written examinations, which are ways of assessing the applicants’ skill in handling the basic material of administrative communication, letters, memos, files and reports. As Bendix notes in his valuable commentary on Weber, in earlier systems of administration ‘official business is transacted in personal encounter and by oral communication, not on the basis of impersonal documents’ (1960:420). In other words, writing affects not only the method of recruitment and the occupational skills
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but also the nature of the bureaucratic role itself. The relation with both ruler and ruled becomes more impersonal, involving greater appeal to abstract 'rules' listed in a written code and leading to a clear-cut separation between official duties and personal concerns. I do not wish to suggest that such separation is totally absent from non-literate societies; nor would I endorse the observation that unwritten tradition 'endorses the unprincipled arbitrariness of the ruler' (Bendix 1960:419). But it is clear that the adoption of written modes of communication was intrinsic to the development of more wide-ranging, more depersonalised and more abstract systems of government; at the same time, the shift from oral intercourse meant assigning less importance to face-to-face situations, whether in the form of the interview or audience, of personal service or national festivals in which the renewal of ties of obedience was often as significant as the religious rites.

I have tried to take certain of the characteristics that Lévi-Strauss and others have regarded as marking the distinction between primitive and advanced, between wild and domesticated thinking, and to suggest that many of the valid aspects of these somewhat vague dichotomies can be related to changes in the mode of communication, especially the introduction of various forms of writing. The advantage of this approach lies in the fact that it does not simply describe the differences but relates them to a third set of facts, and thus provides some kind of explanation, some kind of mechanism, for the changes that are assumed to occur.

A recognition of this factor also modifies our view of the nature of those differences. The traditional characterisation is essentially a static one in that it gives no reason for change, no idea of how or why domestication occurred; it assumes the primitive mind has this particular character, the advanced has that, and it is due to the genius of the Greeks or the Western Europeans that modern man emerged. But modern man is emerging every day in contemporary Africa, without, I suggest, the total transformation of processes of 'thought' or attributes of 'mind' that existing theories imply. The content of communication is clearly of prime significance. But it is also essential, for social theory and historical analysis, for present policy and future planning, to recall the limitations and opportunities offered by different technologies of the intellect.

In the chapters that follow, I try to analyse in a more particular way the relation between means of communication and modes of 'thought'. In this endeavour I want to maintain a balance between the refusal to admit of differences in cognitive processes or cultural developments on the one hand and extreme dualism or distinction on the other. The thought ways of human societies resemble each other in many respects; individual intellectual activity is a feature of the social life of the LoDagaa of Northern Ghana as it is of Western cultures. Indeed the next chapter is directed to making this very point, the point that some versions of the dualistic view tend to overlook. On the other hand, the extreme form of relativism implicit in much contemporary writing neglects the fact that the cognitive activities of individuals differ from society to society in many ways. Some of the general differences that marked the binary approaches can be attributed to the new potentialities for human cognition that are created by changes in the means of communication. Social scientists readily acknowledge this point for language itself, but tend to ignore the influence of subsequent events in the development of human interaction.

The general influence of writing on the growth of knowledge is discussed in the third chapter, where I try to look at some of the features thought to be characteristic of 'simple' and 'complex' societies from this point of view, paying particular attention to the treatment of the important comparison and contrast between Western science and African traditional thought that has been made by Horton.

The next four chapters switch from the general to the particular, attempting to specify more exactly certain ways in which the use of writing seems to have influenced cognitive structures. Here I am more interested in the non-speech uses of language in writing than the obvious speech-like ones, as exemplified in the use of tables, lists, formulae and recipes for the organisation and development of human knowledge. It is these 'figures of the written word' rather than 'figures of speech' on which the account focuses. In trying to assess the importance of these instruments of cognitive manipulation, of intellectual processes, I examine (with very much of an amateur's eye) some of the first products of writing systems, drawing upon the earliest writing systems of all, those of the Middle East, that were so central in facilitating great advances in human knowledge. And at the same time I look at the more recent introduction of writing into hitherto oral societies, a process that can be observed in West Africa at the present day. In that region an attempt can be made to assess not only the external impact of both Arabic and European writing upon non-literate societies, a subject which I have discussed in earlier essays (Goody 1968a; 1972b), but also the actual process by which individuals and societies acquire writing and become literate.

While the impact of foreign systems can tell us much, this situation is necessarily influenced by the content of the tradition of which the
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system of writing is a part, Islam in one case, Christianity (or modern Western culture) in the other. During the first half of the nineteenth century, some members of one West African society did invent their own script, stimulated by a knowledge of the advantages that writing gave to the European and to the Arab (and possibly to the Cherokee). This well-documented discovery was made by the Vai of the Liberia-Sierra Leone border, who provide a limited opportunity to see the ways in which the advent of writing can influence a society in the absence of formal educational organisation and without the importation of a ready-made literate culture. This particular situation is currently being investigated intensively by Michael Cole, Sylvia Scribner, and a number of their collaborators. I had the good fortune to be invited to participate briefly in the project and so had the opportunity of testing my suggestions concerning the implications of literacy (and in particular the role of lists) by looking at the content of a body of Vai documents. The results of this brief encounter have been published in Africa (1977), in collaboration with Cole and Scribner, under the title 'Writing and formal operations: a case study among the Vai'. It is an essential supplement to the present account and can be taken to indicate, in terms of the distinction used by Scribner and Cole (1973), that while cognitive capacities remain the same, access to different skills can produce remarkable results. Indeed I myself would go further and see the acquisition of these means of communication as effectively transforming the nature of cognitive processes, in a manner that leads to a partial dissolution of the boundaries erected by psychologists and linguists between abilities and performance.

2. Intellectuals in pre-literate societies?

When they reached the Dragon Gate, the guild head pointed to it, and said, 'This is the gate for scholars'. They went into a corridor with examination cells on both sides, and the guild head told them, 'This is Number One. You can go in and have a look'. Chou Chin went in, and when he saw the desk set there so neatly, tears started to his eyes. He gave a long sigh, knocked his head against the desk, and slipped to the ground unconscious.

But to know whether Chou Chin recovered or not, you must read the next chapter.

Wu Ching-Tzu, The Scholars, p. 25

The drift of the argument, then, is not to build an iron curtain nor even a paper screen, between the cognitive processes of societies that one would clearly distinguish on any technological index, but to disentangle the particular features of 'modes of thought' that appear to be affected by changes in the means of communication. But a word of warning is necessary. In suggesting that some of the arguments concerning myth and history, the development of mathematical operations, the growth of individualism and the rise of bureaucracy were closely connected with the long and changing process of introducing graphic symbols for speech, of the shift from utterance to text, I do not mean to imply that pre-literate societies are without history, mathematics, individuals or administrative organisations. Rather I am interested in the further developments in these various facets of social life that seem to be associated with changes in the means and modes of communication.

I would like to develop this point by considering not whether intellectual activity is found in pre-literate societies, for this seems to me self-evident, but what kind of intellectual activity and whether we can speak of intellectuals in any sense, since the presence of such individuals is sometimes said to characterise 'advanced' societies, 'hot' societies, as distinct from static, traditional ones.
References

Chiera, E. (1929), Sumerian Lexical Texts from the Temple School of Nippur. Chicago.
Cox, M. R. (1893), Cinderella, 345 Variants (Folklore Society Monograph No. 31). London.

References

Culpeper, N. (n.d.), The British Herbal and Family Physician (1st edn. 1649), London.
(1933), The Division of Labour in Society. New York (1st French edn. 1893).
The domestication of the savage mind

(1973), Roman Myths. London.
(1973), Prologue to Greek Literacy. Cincinnati.
Hirst, P. Q. (1975), 'The uniqueness of the West', Economy and Society, 4:446—475.
Kinnier Wilson, J. V. (1972), The Nimrud Wine Lists. British School of Archaeology in Iraq.

References
Kramer, S. N. (1959), From the Tablets of Sumer. Indian Hills, Colorado.
(1970), 'Logic of discovery or psychology of research?', in L. Lakatos and A. Musgrave, eds., Criticism and the Growth of Knowledge. Cambridge.
(1970), The Raw and the Cooked. Introduction to a Science of Mythology, Lon-
don. (1st French edn. 1964.)
(1973), From Honey to Ashes. London. (1st French edn. 1966.)
(1965), Introduction to Theoretical Linguistics. Cambridge.
Maranda, P. and E. K. eds. (1971), Structural Analysis of Oral Tradition. Phila-
delphia.
Miller, G., Gallanter, E. and Fibrab, K. (1960), Plans and the Structure of Be-
havior. New York.
The domestication of the savage mind

Needham, R. ed. (1973), Right and Left: Essays on Dual Symbolic Classification.
Chicago.

References

Vachek, J. (1950), 'Zum Problem der geschriebenen Sprache', Travaux du Cercle linguistique de Prague, 8:94-104.
(1959), 'Two chapters on written English', Brno Studies in English, 1:7-34.