1. The Consequences of Literacy

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The accepted tripartite divisions of the formal study of mankind's past and of his present are to a considerable extent based on man's development first of language and later of writing. Looked at in the perspective of time, man's biological evolution shades into prehistory when he becomes a language-using animal; add writing, and history proper begins. Looked at in a temporal perspective, man as animal is studied primarily by the zoologist, man as talking animal primarily by the anthropologist, and man as talking and writing animal primarily by the sociologist.

That the differentiation between these categories should be founded on different modes of communication is clearly appropriate; it was language that enabled man to achieve a form of social organization whose range and complexity were different in kind from that of animals; whereas the social organization of animals was mainly instinctive and genetically transmitted, that of man was largely learned and transmitted verbally through the cultural heritage. The basis for the last two distinctions, those based on the development of writing, is equally clear: to the extent that a significant quantity of written records are available, the prehistorian yields to the historian; and to the extent that alphabetical writing and popular literacy imply new modes of social organization and transmission, the anthropologist tends to yield to the sociologist.

But why? And how? There is no agreement about this question, nor even about what the actual boundary lines between non-literate and literate cultures are. At what point in the formalization of pictographs or other graphic signs can we talk of "letters," of literacy? And what proportion of the society has to write and read before the culture as a whole can be described as literate?

These are some of the many reasons why the extent to which there is any distinction between the areas and methods peculiar to anthropology and sociology must be regarded as problematic; and the difficulty affects not only the

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boundaries of the two disciplines but also the nature of the intrinsic differences in their subject matter.1 The recent trend has been for anthropologists to spread their net more widely and engage in the study of industrial societies side by side with their sociological colleagues. We can no longer accept the view that anthropologists have as their objective the study of primitive man, who is characterized by a "primitive mind," while sociologists, on the other hand, concern themselves with civilized man, whose activities are guided by "rational thought" and tested by "logico-empirical procedures." The reaction against such ethnocentric views, however, has now gone to the point of denying that the distinction between non-literate and literate societies has any significant validity. This position seems contrary to our personal observation; and so it has seemed worthwhile to enquire whether there may not be, even from the most empirical and relativist standpoint, genuine illumination to be derived from a further consideration of some of the historical and analytic problems connected with the traditional dichotomy between non-literate and literate societies.

The Cultural Tradition in Non-Literate Societies

For reasons which will become clear it seems best to begin with a generalized description of the ways in which the cultural heritage is transmitted in nonliterate societies, and then to see how these ways are changed by the widespread adoption of any easy and effective means of written communication.

When one generation hands on its cultural heritage to the next, three fairly separate items are involved. First, the society passes on its material plant, including the natural resources available to its members. Secondly, it transmits standardized ways of acting. These customary ways of behaving are only partly communicated by verbal means; ways of cooking food, of growing crops, of handling children may be transmitted by direct imitation. But the most significant elements of any human culture are undoubtedly channelled through words, and reside in the particular range of meanings and attitudes which members of any society attach to their verbal symbols. These elements include not only what we habitually think of as customary behaviour but also such items as ideas of space and time, generalized goals and aspirations, in short the Weltanschauung of every social group. In Durkheim's words, these categories of the understanding are "priceless instruments of thought which the human groups have laboriously forged through the centuries and where they have accumulated the best of their intellectual capital" (Durkheim 1915: 19). The relative continuity of these categories of understanding from one generation to another is primarily ensured by language, which is the most direct and comprehensive expression of the social experience of the group.

The transmission of the verbal elements of culture by oral means can be visualized as a long chain of interlocking conversations between members of the group. Thus all beliefs and values, all forms of knowledge, are communicated between individuals in face-to-face contact; and, as distinct from the material content of the cultural tradition, whether it be cave-paintings or hand-axes, they are stored only in human memory.

The intrinsic nature of oral communication has a considerable effect upon both the content and the transmission of the cultural repertoire. In the first place, it makes for a directness of relationship between symbol and referent, There can be no reference to "dictionary definitions," nor can words accumulate the successive layers of historically validated meanings which they acquire in a literate culture. Instead, the meaning of each word is ratified in a succession of concrete situations, accompanied by vocal inflections and physical gestures, all of which combine to particularize both its specific denotation and its accepted connotative usages. This process of direct semantic ratification, of course, operates cumulatively; and as a result the totality of symbol-referent relationships is more immediately experienced by the individual in an exclusively oral culture, and is thus more deeply socialized.

One way of illustrating this is to consider how the range of vocabulary in a non-literate society reflects this mode of semantic ratification. It has often been observed how the elaboration of the vocabulary of such a society reflects the particular interests of the people concerned. The inhabitants of the Pacific island of Lesu have not one, but a dozen or so, words for pigs (Powdermaker 1933: 292; Henle 1958: 5-18), according to sex, colour, and where they come from -a prolixity which mirrors the importance of pigs in a domestic economy that otherwise includes few sources of protein. The corollary of this prolixity is that where common emphases and interests, whether material or otherwise, are not specifically involved, there is little verbal development. Malinowski reported that in the Trobriands the outer world was only named in so far as it vielded useful things, useful, that is, in the very broadest sense;2 and there is much other testimony to support the view that there is an intimate functional adaptation of language in non-literate societies, which obtains not only for the relatively simple and concrete symbol-referents involved above, but also for the more generalized "categories of understanding" and for the cultural tradition as a whole.

In an essay he wrote in collaboration with Mauss, "De quelques formes primitives de classification,"3 Durkheim traces the interconnections between the ideas of space and the territorial distribution of the Australian aborigines, the Zuni of the Pueblo area and the Sioux of the Great Plains. This intermeshing of what he called the collective representations with the social morphology of a particular society is clearly another aspect of the same directness of relationship between symbol and referent. Just as the more concrete part of a vocabulary reflects the dominant interests of the society, so the more abstract categories are often closely linked to the accepted terminology for pragmatic pursuits. Among the LoDagaa of northern Ghana, days are reckoned according to the incidence of neighbouring markets; the very word for day and market is the same, and the "weekly" cycle is a six-day revolution of the most important markets in the vicinity, a cycle which also defines the spatial range of everyday activities.4

The way in which these various institutions in an oral culture are kept in relatively close accommodation one to another surely bears directly on the question of the central difference between literate and non-literate societies. As we have remarked, the whole content of the social tradition, apart from the material inheritances, is held in memory. The social aspects of remembering have been emphasized by sociologists and psychologists, particularly by Maurice

Halbwachs, 5 What the individual remembers tends to be what is of critical importance in his experience of the main social relationships. In each generation, therefore, the individual memory will mediate the cultural heritage in such a way that its new constituents will adjust to the old by the process of interpretation that Bartlett calls "rationalizing" or the "effort after meaning"; and whatever parts of it have ceased to be of contemporary relevance are likely to be eliminated by the process of forgetting.

The social function of memory-and of forgetting-can thus be seen as the final stage of what may be called the homeostatic organization of the cultural tradition in non-literate society. The language is developed in intimate association with the experience of the community, and it is learned by the individual in face-to-face contact with the other members. What continues to be of social relevance is stored in the memory while the rest is usually forgotten; and language - primarily vocabulary - is the effective medium of this crucial process of social digestion and elimination which may be regarded as analogous to the homeostatic organization of the human body by means of which it attempts to maintain its present condition of life.

In drawing attention to the importance of these assimilating mechanisms in non-literate societies, we are denying neither the occurrence of social change nor vet the "survivals" which it leaves in its wake. Nor do we overlook the existence of mnemonic devices in oral cultures which offer some resistance to the interpretative process. Formalized patterns of speech, recital under ritual conditions, the use of drums and other musical instruments, the employment of professional remembrancers—all such factors may shield at least part of the content of memory from the transmuting influence of the immediate pressures of the present. The Homeric epics, for instance, seem to have been written down during the first century of Greek literature between 750 and 650 B.C., but "they look to a departed era, and their substance is unmistakably old" (Finley 1954: 26).

Kinds of Writing and Their Social Effects

The pastness of the past, then, depends upon a historical sensibility which can hardly begin to operate without permanent written records; and writing introduces similar changes in the transmission of other items of the cultural repertoire. But the extent of these changes varies with the nature and social distribution of the writing system; varies, that is, according to the system's intrinsic efficacy as a means of communication, and according to the social constraints placed upon it, that is, the degree to which use of the system is diffused through the society.

Early in prehistory, man began to express himself in graphic form; and his cave paintings, rock engravings and wood carvings are morphologically, and presumably sequentially, the forerunners of writing. By some process of simplification and stylization they appear to have led to the various kinds of pictographs found in simple societies (Gelb 1952: 24). While pictographs themselves are almost universal, their development into a self-sufficient system capable of extended discourse occurs only among the Plains Indians (Voegelin 1961: 84, 91).

Pictographs have obvious disadvantages as means of communication. For one thing a vast number of signs are needed to represent all the important objects in the culture. For another, since the signs are concrete, the simplest sentence requires an extremely elaborate series of signs: many stylized representations of wigwams, footprints, totemic animals and so on are required just to convey the information that a particular man left there a few days ago. Finally, however elaborately the system is developed, only a limited number of things can be said.

The end of the fourth millennium saw the early stages of the development of more complex forms of writing, which seem to be an essential factor in the rise of the urban cultures of the Orient. The majority of signs in these systems were simply pictures of the outside world, standardized representations of the objects signified by particular words; to these were added other devices for creating word signs or logograms, which permitted the expression of wider ranges of meaning. Thus, in Egyptian hieroglyphics the picture of a beetle was a code sign not only for that insect but also for a discontinuous and more abstract referent "became" (Voegelin 1961: 75-6).

The basic invention used to supplement the logograms was the phonetic principle, which for the first time permitted the written expression of all the words of a language. For example, by the device of phonetic transfer the Sumerians could use the sign for ti, an arrow, to stand for ti, life, a concept not easy to express in pictographic form. In particular, the need to record personal names and foreign words encouraged the development of phonetic elements in writing.

But while these true writing systems all used phonetic devices for the construction of logograms (and have consequently been spoken of as wordsyllabic systems of writing), they failed to carry through the application of the phonetic principle exclusively and systematically. 6 The achievement of a system completely based upon the representation of phonemes (the basic units of meaningful sound) was left to the Near Eastern syllabaries, which developed between 1500-1000 B.C., and finally to the introduction of the alphabet proper in Greece. Meanwhile these incompletely phonetic systems were too clumsy and complicated to foster widespread literacy, if only because the number of signs was very large; at least six hundred would have to be learned even for the simplified cuneiform developed in Assyria, and about the same for Egyptian hieroglyphs (Gelb 1952: 115; Diringer 1948: 48, 196). All these ancient civilizations, the Sumerian, Egyptian, Hittite and Chinese, were literate in one sense and their great advances in administration and technology were undoubtedly connected with the invention of a writing system; but when we think of the limitations of their systems of communication as compared with ours, the term protoliterate," or even "oligoliterate," might be more descriptive in suggesting the restriction of literacy to a relatively small proportion of the total population.

Any system of writing which makes the sign stand directly for the object must be extremely complex. It can extend its vocabulary by generalization or association of ideas, that is, by making the sign stand either for a more general class of objects or for other referents connected with the original picture by an association of meanings which may be related to one another either in a continuous or in a discontinuous manner. Either process of semantic extension is to some extent arbitrary or esoteric; and as a result the interpretation of these signs

is neither easy nor explicit. One might perhaps guess that the Chinese sign for a man carries the general meaning of maleness; it would be more difficult to see that a conventionalized picture of a man and a broom is the sign for a woman; it's a pleasing fancy, no doubt, but not one which communicates very readily until it has been learned as a new character, as a separate sign for a separate word, as a logogram. In Chinese writing a minimum of three thousand such characters have to be learned before one can be reasonably literate (Moorhouse 1953: 90, 163) and with a repertoire of some fifty thousand characters to be mastered, it normally takes about twenty years to reach full literate proficiency. China, therefore, stands as an extreme example of how, when a virtually non-phonetic system of writing becomes sufficiently developed to express a large number of meanings explicitly, only a small and specially trained professional group in the total society can master it, and partake of the literate culture.

Although systems of word signs are certainly easier to learn, many difficulties remain, even when these signs are supplemented by phonemic devices of a syllabic sort. Other features of the social system are no doubt responsible for the way that the writing systems developed as they did; but it is a striking fact that—for whatever ultimate causes—in Egypt and Mesopotamia, as in China, a literate élite of religious, administrative and commercial experts emerged and maintained itself as a centralized governing bureaucracy on rather similar lines. Their various social and intellectual achievements were, of course, enormous; but as regards the participation of the society as a whole in the written culture, a wide gap existed between the esoteric literate culture and the exoteric oral one, a gap which the literate were interested in maintaining. Among the Sumerians and Akkadians writing was the pursuit of scribes and preserved as a "mystery," a "secret treasure." Royalty were themselves illiterate; Ashurbanipal (668-626 B.C.) records that he was the first Babylonian king to master the "clerkly skill" (Driver 1954: 62, 72). "Put writing in your heart that you may protect yourself from hard labour of any kind," writes an Egyptian of the New Kingdom: "The scribe is released from manual tasks; it is he who commands" (Childe 1941: 187-8: 1942: 105, 118), Significantly, the classical age of Babylonian culture, beginning under Hammurabi in the late eighteenth century B.C., appears to have coincided with a period when the reading and writing of Akkadian cuneiform was not confined to a small group, or to one nation; it was then that nearly all the extant literature was written down, and that the active state of commerce and administration produced a vast quantity of public and private correspondence, of which much has survived.

These imperfectly phonetic methods of writing continued with little change for many centuries; so too did the cultures of which they were part. The existence of an elite group, which followed from the difficulty of the writing system, and whose continued influence depended on the maintenance of the present social order, must have been a powerfully conservative force, especially when it consisted of ritual specialists; of and so, it may be surmised, was the nature of the writing system itself. For pictographic and logographic systems are alike in their tendency to reify the objects of the natural and social order; by so doing they register, record, make permanent the existing social and ideological picture. Such, for example, was the tendency of the most highly developed and

longest-lived ancient writing system, that of Egypt, whose society has been described with picturesque exaggeration as "a nation of fellahin ruled with a rod of iron by a Society of Antiquaries."

This conservative or antiquarian bias can perhaps be best appreciated by contrasting it with fully phonetic writing; for phonetic writing, by imitating human discourse, is in fact symbolizing, not the objects of the social and natural order, but the very process of human interaction in speech: the verb is as easy to express as the noun; and the written vocabulary can be easily and unambiguously expanded. Phonetic systems are therefore adapted to expressing every nuance of individual thought, to recording personal reactions as well as items of major social importance. Non-phonetic writing, on the other hand, tends rather to record and reify only those items in the cultural repertoire which the literate specialists have selected for written expression; and it tends to express the collective attitude towards them.

The notion of representing a sound by a graphic symbol is itself so stupefying a leap of the imagination that what is remarkable is not so much that it happened relatively late in human history, but rather that it ever happened at all. For a long time, however, these phonetic inventions had a limited effect because they were only partially exploited: not only were logograms and pictograms retained, but a variety of phonograms were used to express the same sound. The full explicitness and economy of a phonetic writing system "as easy as A B C" were therefore likely to arise only in less advanced societies on the fringes of Egypt or Mesopotamia, societies which were starting their writing system more or less from scratch, and which took over the idea of phonetic signs from adjoining countries, and used them exclusively to fit their own language. 11 These phonetic signs could, of course, be used to stand for any unit of speech, and thus be developed either into syllabaries or into alphabets. In a few cases, such as Japanese, the particular nature of the language made it possible to construct a relatively simple and efficient syllabary; but as regards the great majority of languages the alphabet, with its signs for individual consonants and vowels. proved a much more economical and convenient instrument for representing sounds. For the syllabaries, while making writing easier, were still far from simple;12 they were often combined with logograms and pictographs.13 And whether by necessity or tradition or both, pre-alphabetic writing was still mainly restricted to élite groups. The Mycenaean script disappeared completely after the twelfth century B.C., a fact which was possible because of the very restricted uses of literacy and the close connection between writing and palace administration (Chadwick 1958: 130: 1959: 7-18). It is doubtful whether any such loss could have occurred in Greece after the introduction of a complete alphabetic script, probably in the eighth century B.C.

The alphabet is almost certainly the supreme example of cultural diffusion (Diringer 1948): all existing or recorded alphabets derive from Semitic syllabaries developed during the second millennium. Eventually there arose the enormous simplification of the Semitic writing system, with its mere twenty-two letters; and then only one further step remained: the Greek script, which is, of course, much closer than the Semitic to the Roman alphabet, took certain of the Semitic signs for consonants which the Greek language didn't need, and used

them for vowels, which the Semitic syllabary did not represent. 14 The directness of our inheritance from these two sources is suggested by the fact that our word "alphabet" is the latinized form of the first two letters of the Greek alphabet, "alpha," derived from the Semitic "aleph," and "beta," from the Semitic "beth."

The reason for the success of the alphabet, which David Diringer calls a "democratic" script as opposed to the "theocratic" scripts of Egypt, is related to the fact that, uniquely among writing systems, its graphic signs are representations of the most extreme and most universal example of cultural selection-the basic phonemic system. The number of sounds which the human breath stream can produce is vast; but nearly all languages are based on the formal recognition by the society of only forty or so of these sounds. The success of the alphabet (as well as some of its incidental difficulties) comes from the fact that its system of graphic representation takes advantage of this socially conventionalized pattern of sound in all language systems; by symbolizing in letters these selected phonemic units the alphabet makes it possible to write easily and read unambiguously about anything which the society can talk about.

The historical picture of the cultural impact of the new alphabetic writing is not altogether clear. As regards the Semitic system, which was widely adopted elsewhere, the evidence suggests that the social diffusion of writing was slow. This was caused partly by the intrinsic difficulties of the system but mainly by the established cultural features of the societies which adopted it. There was, for one thing, a strong tendency for writing to be used as a help to memory rather than as an autonomous and independent mode of communication; and under such conditions its influence tended towards the consolidation of the existing cultural tradition. This certainly appears to be true of India and Palestine. 15 Gandz notes, for example, that Hebrew culture continued to be transmitted orally long after the Old Testament had begun to be written down. As he puts it, the introduction of writing

did not at once change the habits of the people and displace the old method of oral tradition. We must always distinguish between the first introduction of writing and its general diffusion. It often takes several centuries, and sometimes even a millennium or more, until this invention becomes the common property of the people at large. In the beginning, the written book is not intended for practical use at all. It is a divine instrument, placed in the temple "by the side of the ark of the covenant that it may be there for a witness" (Deuteronomy xxxi. 26), and remains there as a holy relic. For the people at large, oral instruction still remained the only way of learning, and the memory—the only means of preservation. Writing was practised, if at all, only as an additional support for the memory . . .

It was not, in fact, until some six centuries after the original Hebrew adoption of the Semitic writing system that, at the time of Ezra (c. 444 B.C.), an official "generally recognized text" of the Torah was published, and the body of the religious tradition ceased to be "practically . . . a sealed book" and became accessible to anyone who chose to study it (Gandz 1935: 253-4).

Even so, of course, as the frequent diatribes against the scribes in the Gospels remind us, 16 there remained a considerable gap between the literati and

the laymen; the professionals who plied their trade in the market-place belonged to "families of scribes," perhaps organized as guilds, within which the mystery was handed down from father to son.17

Anything like popular literacy, or the use of writing as an autonomous mode of communication by the majority of the members of society, is not found in the earliest societies which used the Semitic writing system; it was, rather, in the sixth and fifth centuries B.C. in the city states of Greece and Ionia that there first arose a society which as a whole could justly be characterized as literate. Many of the reasons why literacy became widespread in Greece, but not in other societies which had Semitic or, indeed, any other simple and explicit writing systems, necessarily lie outside the scope of this essay; yet considerable importance must surely be attributed to the intrinsic advantages of the Greek adaptation of the Semitic alphabet, an adaptation which made it the first comprehensively and exclusively phonetic system for transcribing human speech. 18 The system was easy, explicit and unambiguous-more so than the Semitic, where the lack of vowels is responsible for many of the cruces in the Bible: for instance, since the consonant in the Hebrew words is the same, Elijah may have been fed by "ravens" or "Arabs." 19 Its great advantage over the syllabaries lay in the reduction of the number of signs and in the ability to specify consonant and vowel clusters. The system was easy to learn: Plato sets aside three years for the process in the Laws, 20 about the time taken in our schools today; and the much greater speed with which alphabetic writing can be learned is shown, not only by such reports as those of the International Institute of Intellectual Cooperation in 1934,21 but also by the increasing adoption of the Roman script, and even more widely of alphabetic systems of writing, throughout the world.

The extensive diffusion of the alphabet in Greece was also materially assisted by various social, economic and technological factors. In the first place, the eighth century saw a great burst of economic activity following the revival of the eastern trade which had declined after the Mycenaean collapse in the twelfth century (Starr 1961: 189-190, 349), Secondly, while the Greek society of the period had, of course, its various social strata, the political system was not strongly centralized: especially in the Ionic settlements there appears to have been a good deal of flexibility and in them we discern the beginnings of the Greek city state. Thirdly, the increased contact with the East brought material prosperity and technological advance. The wider use of iron, the advent of the true Iron Age, was perhaps one of the results (Starr 1961: 87-8, 357). More closely connected with literacy was the fact that trade with Egypt led to the importation of papyrus; and this made writing itself easier and less expensive, both for the individual writer and for the reader who wanted to buy books; papyrus was obviously much cheaper than parchment made from skins, more permanent than wax tablets, easier to handle than the stone or clay of Mesopotamia and Mycenae.

The chronology and extent of the diffusion of literacy in Greece remain a matter of debate. With the Mycenaean collapse in the twelfth century, writing disappeared; the earliest Greek inscriptions in the modified Semitic alphabet occur in the last two decades of the eighth century (Starr 1961: 169). Recent authorities suggest the new script was adopted and transformed about the middle of the eighth century in northern Syria.²² The extensive use of writing

probably came only slowly in the seventh century, but when it finally came it seems to have been applied in a very wide range of activities, intellectual as well

as economic, and by a wide range of people.23

It must be remembered, of course, that Greek writing throughout the classical period was still relatively difficult to decipher, as words were not regularly separated (Kenyon 1951: 67); that the copying of manuscripts was a long and laborious process; and that silent reading as we know it was very rare until the advent of printing-in the ancient world books were used mainly for reading aloud, often by a slave. Nevertheless, from the sixth century onwards literacy seems to be increasingly presumed in the public life of Greece and Ionia. In Athens, for example, the first laws for the general public to read were set up by Solon in 594-3 B.C.; the institution of ostracism early in the fifth century assumes a literate citizen body-six thousand citizens had to write the name of the person on their potsherds before he could be banished (Carcopino 1935: 72-110); there is abundant evidence in the fifth century of a system of schools teaching reading and writing (Protagoras, 325 d) and of a book-reading public-satirized already by Aristophanes in The Frogs;24 while the final form of the Greek alphabet, which was established fairly late in the fifth century, was finally adopted for use in the official records of Athens by decree of the Archon Eucleides in 403 B.C.

Alphabetic Culture and Greek Thought

The rise of Greek civilization, then, is the prime historical example of the transition to a really literate society. In all subsequent cases where the widespread introduction of an alphabetic script occurred, as in Rome for example, other cultural features were inevitably imported from the loan country along with the writing system; Greece thus offers not only the first instance of this change, but also the essential one for any attempt to isolate the cultural consequences of alphabetic literacy.

The fragmentary and ambiguous nature of our direct evidence about this historical transformation in Greek civilization means that any generalizations must be extremely tentative and hypothetical; but the fact that the essential basis both of the writing systems and of many characteristic cultural institutions of the Western tradition as a whole are derived from Greece, and that they both arose there simultaneously, would seem to justify the present attempt to outline the possible relationships between the writing system and those cultural innovations of early Greece which are common to all alphabetically literate societies.

The early development of the distinctive features of Western thought is usually traced back to the radical innovations of the pre-Socratic philosophers of the sixth century B.C. The essence of their intellectual revolution is seen as a change from mythical to logico-empirical modes of thought. Such, broadly speaking, is Werner Jaeger's view; and Ernst Cassirer writes that "the history of philosophy as a scientific discipline may be regarded as a single continuous struggle to effect a separation and liberation from myth."25

To this general picture there are two kinds of theoretical objection. First, that the crucial intellectual innovations - in Cassirer as in Werner Jaeger - are in

the last analysis attributed to the special mental endowments of the Greek people; and in so far as such terms as "the Greek mind" and "genius" are not simply descriptive, they are logically dependent upon extremely questionable theories of man's nature and culture. Secondly, such a version of the transformation from "unphilosophical" to "philosophical" thought assumes an absoluteand untenable-dichotomy between the "mythical" thought of primitives and the "logico-empirical" thought of civilized man.

The dichotomy, of course, is itself very similar to Lévy-Bruhl's earlier theory of the "prelogical" mentality of primitive peoples, which has been widely criticized. Malinowski and many others have demonstrated the empirical elements in non-literate cultures, 26 and Evans-Pritchard (1937) has carefully analysed the "logical" nature of the belief systems of the Azande of the Sudan,27 while on the other hand the illogical and mythical nature of much Western thought and behaviour is evident to anyone contemplating either our past or our present.

Nevertheless, although we must reject any dichotomy based upon the assumption of radical differences between the mental attributes of literate and non-literate peoples, and accept the view that previous formulations of the distinction were based on faulty premises and inadequate evidence, there may still exist general differences between literate and non-literate societies somewhat along the lines suggested by Lévy-Bruhl. One reason for their existence, for instance, may be what has been described above: the fact that writing establishes a different kind of relationship between the word and its referent, a relationship that is more general and more abstract, and less closely connected with the particularities of person, place and time, than obtains in oral communication. There is certainly a good deal to substantiate this distinction in what we know of early Greek thought. To take, for instance, the categories of Cassirer and Werner Jaeger, it is surely significant that it was only in the days of the first widespread alphabetic culture that the idea of "logic"-of an immutable and impersonal mode of discourse-appears to have arisen; and it was also only then that the sense of the human past as an objective reality was formally developed, a process in which the distinction between "myth" and "history" took on decisive importance.

Myth and history

Non-literate peoples, of course, often make a distinction between the lighter folk-tale, the graver myth, and the quasi-historical legend (e.g. the Trobriands; Malinowski 1926: 33). But not so insistently, and for an obvious reason. As long as the legendary and doctrinal aspects of the cultural tradition are mediated orally, they are kept in relative harmony with each other and with the present needs of society in two ways: through the unconscious operations of memory, and through the adjustment of the reciter's terms and attitudes to those of the audience before him. There is evidence, for example, that such adaptations and omissions occurred in the oral transmission of the Greek cultural tradition. But once the poems of Homer and Hesiod, which contained much of the earlier history, religion and cosmology of the Greeks, had been written down, succeeding generations were faced with old distinctions in sharply aggravated form: how far was the information about their gods and heroes literally true? How could its patent inconsistencies be explained? And how could the beliefs and attitudes implied be brought into line with those of the present?

The disappearance of so many early Greek writings, and the difficulties of dating and composition in many that survive, make anything like a clear reconstruction impossible. Greek had of course been written, in a very limited way, during Mycenaean times. At about 1200 B.C. writing disappeared, and the alphabet was not developed until some four hundred years later. Most scholars agree that in the middle or late eighth century the Greeks adapted the purely consonantal system of Phoenicia, possibly at the trading port of al Mina (Poseidon?). Much of the early writing consisted of "explanatory inscriptions on existing objects - dedications on offerings, personal names on property, epitaphs on tombs, names of figures in drawings" (Jeffery 1961: 46). The Homeric poems were written down between 750 and 650 B.C., and the seventh century saw first the recording of lyric verse and then (at the end) the emergence of the great Ionian school of scientist philosophers. 28 Thus within a century or two of the writing down of the Homeric poems, many groups of writers and teachers appeared, first in Ionia and later in Greece, who took as their point of departure the belief that much of what Homer had apparently said was inconsistent and unsatisfactory in many respects. The logographers, who set themselves to record the genealogies, chronologies and cosmologies which had been handed down orally from the past, soon found that the task led them to use their critical and rational powers to create a new individual synthesis. In non-literate society, of course, there are usually some individuals whose interests lead them to collect, analyse and interpret the cultural tradition in a personal way; and the written records suggest that this process went considerably further among the literate élites of Egypt, Babylon and China, for example. But, perhaps because in Greece reading and writing were less restricted to any particular priestly or administrative groups, there seems to have been a more thoroughgoing individual challenge to the orthodox cultural tradition in sixth-century Greece than occurred elsewhere. Hecataeus, for example, proclaimed at about the turn of the century, "What I write is the account I believe to be true. For the stories the Greeks tell are many and in my opinion ridiculous" (Jacoby 1931), and offered his own rationalizations of the data on family traditions and lineages which he had collected. Already the mythological mode of using the past, the mode which, in Sorel's words, makes it "a means of acting on the present" (Hulme 1941: 136; Redfield 1953: 125), has begun to disappear.

That this trend of thought had much larger implications can be seen from the fact that the beginnings of religious and natural philosophy are connected with similar critical departures from the inherited traditions of the past; as W. B. Yeats wrote, with another tradition in mind: "Science is the critique of myths, there would be no Darwin had there been no Book of Genesis" (Hone 1942: 405, our italics). Among the early pre-Socratics there is much evidence of the close connection between new ideas and the criticism of the old. Thus Xenophanes of Colophon (fl. c. 540 B.C.) rejected the "fables of men of old," and replaced the anthropomorphic gods of Homer and Hesiod who did "everything that is disgraceful and blameworthy among men" with a supreme god, "not at all like mortals in body and mind,"29 while Heraclitus of Ephesus (fl. c. 500 B.C.), the first great philosopher of the problems of knowledge, whose system is based on the unity of opposites expressed in the Logos or structural plan of things, also ridiculed the anthropomorphism and idolatry of the Olympian religion.30

The critical and sceptical process continued, and, according to Cornford, "a great part of the supreme god's biography had to be frankly rejected as false, or reinterpreted as allegory, or contemplated with reserve as mysterious myth too dark for human understanding" (Cornford 1923: xv-xvi; Burnet 1908: 1). On the one hand the poets continued to use the traditional legends for their poems and plays; on the other the prose writers attempted to wrestle with the problems with which the changes in the cultural tradition had faced them. Even the poets, however, had a different attitude to their material. Pindar, for example, used mythoi in the sense of traditional stories, with the implication that they were not literally true; but claimed that his own poems had nothing in common with the fables of the past (1st Olympian Ode). As for the prose writers, and indeed some of the poets, they had set out to replace myth with something else more consistent. with their sense of the logos, of the common and all-encompassing truth which reconciles apparent contradictions.

From the point of view of the transmission of the cultural tradition, the categories of understanding connected with the dimensions of time and space have a particular importance. As regards an objective description of space, Anaximander (b. 610 B.C.) and Hecataeus (fl. c. 510-490), making use of Babylonian and Egyptian techniques, drew the first maps of the world (Warmington 1934: xiv, xxxviii). Then their crude beginnings were subjected to a long process of criticism and correction-by Herodotus (History: iv, 36-40) and others; and from this emerged the more scientific cartography of Aristotle, Eratosthenes and their successors (Warmington 1934: xvii, xli).

The development of history appears to have followed a rather similar course, although the actual details of the process are subject to much controversy. The traditional view gave priority to local histories, which were followed by the more universal accounts of Herodotus and Thucydides. Dionysius of Halicarnasus writes of the predecessors of these historians who, "instead of coordinating their accounts with each other. . . . treated of individual peoples and cities separately. . . . They all had the one same object, to bring to the general knowledge of the public the written records that they found preserved in temples or in secular buildings in the form in which they found them, neither adding nor taking away anything; among these records were to be found legends hallowed by the passage of time . . ." (Pearson 1939: 3).

Jacoby, however, has insisted "the whole idea is wrong that Greek historiography began with local history" (1949: 354). As far as Athens is concerned, history begins with the foreigner Herodotus, who, not long after the middle of the fifth century, incorporated parts of the story of the town in his work because he wanted to explain the role it played in the great conflict between East and West, between Europe and Asia. The aim of Herodotus' History was to discover what the Greeks and Persians "fought each other for" (History: I. 1: Finley 1959: 4); and his method was historia, personal inquiry or research into the most probable versions of events as they were to be found in various sources. His work rested on oral tradition and consequently his writings retained many mythological elements. So too did the work of the logographer, Hellanicus of Lesbos, who at the end of the fifth century wrote the first history of Attica from 683 to the end of the Peloponnesian war in 404. Hellanicus also tried to reconstruct the genealogies of the Homeric heroes, both backwards to the gods and forwards to the Greece of his own time; and this inevitably involved chronology, the objective measurement of time. All he could do, however, was to rationalize and systematize largely legendary materials (Pearson 1939: 193, 232). The development of history as a documented and analytic account of the past and present of the society in permanent written form took an important step forward with Thucvdides, who made a decisive distinction between myth and history, a distinction to which little attention is paid in non-literate society (Malinowski 1922: 290-333). Thucydides wanted to give a wholly reliable account of the wars between Athens and Sparta; and this meant that unverified assumptions about the past had to be excluded. So Thucydides rejected, for example, the chronology that Hellanicus had worked out for the prehistory of Athens, and confined himself very largely to his own notes of the events and speeches he related, or to the information he sought out from evewitnesses and other reliable sources (Thucydides: I, 20-2, 97).31

And so, not long after the widespread diffusion of writing throughout the Greek world, and the recording of the previously oral cultural tradition, there arose an attitude to the past very different from that common in non-literate societies. Instead of the unobtrusive adaptation of past tradition to present needs, a great many individuals found in the written records, where much of their traditional cultural repertoire had been given permanent form, so many inconsistencies in the beliefs and categories of understanding handed down to them that they were impelled to a much more conscious, comparative and critical attitude to the accepted world picture, and notably to the notions of God, the universe and the past. Many individual solutions to these problems were themselves written down, and these versions formed the basis for further investigations.32

In non-literate society, it was suggested, the cultural tradition functions as a series of interlocking face-to-face conversations in which the very conditions of transmission operate to favour consistency between past and present, and to make criticism—the articulation of inconsistency—less likely to occur; and if it does, the inconsistency makes a less permanent impact, and is more easily adjusted or forgotten. While scepticism may be present in such societies, it takes a personal, non-cumulative form; it does not lead to a deliberate rejection and reinterpretation of social dogma so much as to a semi-automatic readjustment of belief.33

In literate society, these interlocking conversations go on; but they are no longer man's only dialogue; and in so far as writing provides an alternative source for the transmission of cultural orientations it favours awareness of inconsistency. One aspect of this is a sense of change and of cultural lag; another is the notion that the cultural inheritance as a whole is composed of two very different kinds of material; fiction, error and superstition on the one hand; and, on the other, elements of truth which can provide the basis for some more reliable and coherent explanation of the gods, the human past and the physical world.

Logic and the Categories of Understanding

The importance of Plato in the later history of philosophy, of course, lies primarily in that aspect of his work which looks forward, and which did much to define the methods of Western thought; the present argument therefore requires a brief consideration of how far these are intrinsically connected with writing. Obviously the great majority of Greek ideas have their roots in the specific historical and social circumstances, for many of which one can find earlier sources and analogues in the great civilizations of the Near East and elsewhere. Yet it does not seem to be merely a matter of ethnocentric prejudice to say that in two areas at least the Greeks developed intellectual techniques that were historically unique, and that possessed intrinsic empirical advantages which led to their widespread adoption by most subsequent literate cultures: the first area is epistemological, where the Greeks developed a new kind of logical method; and the second area is that of taxonomy, where the Greeks established our accepted categories in the fields of knowledge—theology, physics, biology and so forth.

In the former, Plato is essentially an heir of the long Greek enterprise of trying to sort out truth, episteme, from current opinion, doxa. This epistemological awareness seems to coincide with the widespread adoption of writing, probably because the written word suggests an ideal of definable truths which have an inherent autonomy and permanence quite different from the phenomena of the temporal flux and of contradictory verbal usages. In oral cultures, words-and especially words like "God," "Justice," "Soul," "Good"-may hardly be conceived of as separate entities, divorced from both the rest of the sentence and its social context. But once given the physical reality of writing, they take on a life of their own; and much Greek thought was concerned with attempting to explain their meanings satisfactorily, and to relate these meanings to some ultimate principle of rational order in the universe, to the logos.

It was, of course, Plato and Aristotle who conceived that there might be a special intellectual procedure for this process; who imagined the possibility of a system of rules for thinking itself, rules which were quite distinct from the particular problem being thought about and which offered a more reliable access to truth than current opinion. In the Phaedrus, for example, Socrates is made to speak of the proper method for arriving at the truth in general; and this method consists in disregarding the body of popular assumptions and, instead, analysing each idea by an initial definition of terms, followed by the development of a unified argument with "a middle and extremities so composed as to suit each other and the whole work." This is to be achieved by "divisions and collections," by analysis of a problem into its constituent elements, and by subsequent rational synthesis (Phaedrus: 264 c; 265 d-266 b; 277 b-c).

This logical procedure seems essentially literate. On general grounds, because, as Oswald Spengler puts it, "writing . . . implies a complete change in the relations of man's waking consciousness, in that it liberates it from the tyrannu of the present; . . . the activity of writing and reading is infinitely more abstract than that of speaking and hearing" (1934: II, 149). On more practical grounds too, because it is difficult to believe that such a large and complex series of arguments as are presented in the Republic, for instance, or in Aristotle's Analytics, could possibly be created, or delivered, much less completely understood, in oral form.

There is also some fairly convincing evidence to suggest a more directly causal connection between writing and logic. The Greek word for an "element" was the same word as for a "letter of the alphabet"; and in the Statesman Plato compares the basic principles of his philosophy with the child's first contact with the alphabet,34 on the grounds that each principle or letter is the key to an infinitely greater number of words or ideas than the particular ones through which it is learned. Plato develops this idea in the Theaetetus when Socrates compares the process of reasoning to the combination of irreducible elements or letters of the alphabet into syllables which, unlike their constituent letters, have meaning: "the elements or letters are only objects of perception, and cannot be defined or known; but the syllables or combinations of them are known and . . . apprehended."35 From this it is not far to the way the letters of the alphabet are used to symbolize the manipulation of general terms in Aristotelian logic; the set sequence of the premises, arguments and conclusions of a syllogism has been represented by letters of the alphabet ever since Aristotle so used them in the Analytics. It is further significant that Aristotle felt that he had made his greatest philosophical contribution in the field of logic; for, as he says in De Sophisticis Elenchis, "on the subject of reasoning we had nothing else of an earlier date to speak of at all."36

The same process of dissection into abstract categories, when applied not to a particular argument but to the ordering of all the elements of experience into separate areas of intellectual activity, leads to the Greek division of knowledge into autonomous cognitive disciplines which has since become universal in Western culture and which is of cardinal importance in differentiating literate and non-literate cultures. Plato made one important step in this direction, for he developed both the word and the notion of theology to designate a separate field of knowledge (Jaeger 1947: 4-5). This kind of strict separation of divine attributes from the natural world, and from human life, is virtually unknown among nonliterate peoples (Goody 1961: 142-64). Neglect of this fact has led to much misunderstanding of the non-empirical and magico-religious aspects of their culture; but the neglect is itself a tribute to the depth of the literate tradition's acceptance of the categories of understanding which it has inherited from Greece.

Plato, however, was too much the disciple of Socrates to take the compartmentalization of knowledge very far. This was left to his pupil, Aristotle, and to his school (Taylor 1943: 24-39); by the time of the death of Aristotle in 322 B.C. most of the categories in the field of philosophy, natural science, language and literature had been delineated, and the systematic collection and classification of data in all of them had begun.

With Aristotle the key methods and distinctions in the world of knowledge were fully, and for the most part permanently, established; and so, of course, were its institutions. It was Aristotle, according to Strabo, 37who was the first man to collect books, and who taught the kings of Egypt to set up libraries; and although there had actually been earlier private collectors of books, Aristotle's library is the first of which much is known; it is from his collections that our word "museum" derives; and if "academy" commemorates the school of Plato, lycée carries us back to Aristotle's Lyceum.

Literate Culture: Some General Considerations

It is hardly possible, in this brief survey, to determine what importance must be attributed to the alphabet as the cause or as the necessary condition of the seminal intellectual innovations that occurred in the Greek world during the centuries that followed the diffusion of writing; nor, indeed, does the nature of the evidence give much ground for believing that the problem can ever be fully resolved. The present argument must, therefore, confine itself to suggesting that some crucial features of Western culture came into being in Greece soon after the existence, for the first time, of a rich urban society in which a substantial portion of the population was able to read and write; and that, consequently, the overwhelming debt of the whole of contemporary civilization to classical Greece must be regarded as in some measure the result, not so much of the Greek genius, as of the intrinsic differences between non-literate (or protoliterate) and literate societies—the latter being mainly represented by those societies using the Greek alphabet and its derivatives. If this is so, it may help us to take our contrast between the transmission of the cultural heritage in non-literate and alphabetically literate societies a little further.

To begin with, the ease of alphabetic reading and writing was probably an important consideration in the development of political democracy in Greece; in the fifth century a majority of the free citizens could apparently read the laws, and take an active part in elections and legislation. Democracy as we know it, then, is from the beginning associated with widespread literacy; and so to a large extent is the notion of the world of knowledge as transcending political units; in the Hellenic world diverse people and countries were given a common administrative system and a unifying cultural heritage through the written word. Greece is therefore considerably closer to being a model for the world-wide intellectual tradition of the contemporary literate world than those earlier civilizations of the Orient which each had its own localized traditions of knowledge: as Oswald Spengler put it, "Writing is the grand symbol of the Far" (1934: II, 150).

Yet although the idea of intellectual, and to some extent political, universalism is historically and substantively linked with literate culture, we too easily forget that this brings with it other features which have quite different implications, and which go some way to explain why the long-cherished and theoretically feasible dream of an "educated democracy" and a truly egalitarian society has never been realized in practice. One of the basic premises of liberal reform over the last century and a half has been that of James Mill, as it is described in the Autobiography of his son, John Stuart Mill:

So complete was my father's reliance on the influence of reason over the minds of mankind, whenever it is allowed to reach them, that he felt as if all would be gained if the whole population were taught to read, if all sorts of opinions were allowed to be addressed to them by word and in writing, and if, by means of the suffrage, they could nominate a legislature to give effect to the opinions they adopted [p. 74].

All these things have been accomplished since the days of the Mills, but nevertheless "all" has not been "gained"; and some causes of this shortfall may be found in the intrinsic effects of literacy on the transmission of the cultural heritage, effects which can be seen most clearly by contrasting them with their analogues in non-literate society.

The writing down of some of the main elements in the cultural tradition in Greece, we say, brought about an awareness of two things: of the past as different from the present; and of the inherent inconsistencies in the picture of life as it was inherited by the individual from the cultural tradition in its recorded form. These two effects of widespread alphabetic writing, it may be surmised, have continued and multiplied themselves ever since, and at an increasing pace since the development of printing. "The printers," Jefferson remarked, "can never leave us in a state of perfect rest and union of opinion,"38 and as book follows book and newspaper newspaper, the notion of rational agreement and democratic coherence among men has receded further and further away, while Plato's attacks on the venal purveyors of knowledge in the market-place have gained increased relevance.

But the inconsistency of the totality of written expression is perhaps less striking than its enormous bulk and its vast historical depth. Both of these have always seemed insuperable obstacles to those seeking to reconstruct society on a more unified and disciplined model: we find the objection in the book-burners of all periods; and it appears in many more respectable thinkers. In Jonathan Swift, for example, whose perfectly rational Houyhnhnms "have no letters," and whose knowledge "consequently . . . is all traditional."39 These oral traditions were of a scale, Swift tells us, that enabled "the historical part" to be "easily preserved without burthening their memories." Not so with the literate tradition, for, lacking the resources of unconscious adaptation and omission which exist in the oral transmission, the cultural repertoire can only grow; there are more words than anybody knows the meaning of-some 142,000 vocabulary entries in a college dictionary like the Webster's New World. This unlimited proliferation also characterizes the written tradition in general: the mere size of the literate repertoire means that the proportion of the whole which any one individual knows must be infinitesimal in comparison with what obtains in oral culture. Literate society, merely by having no system of elimination, no "structural amnesia," prevents the individual from participating fully in the total cultural tradition to anything like the extent possible in non-literate society.

One way of looking at this lack of any literate equivalent to the homeostatic organization of the culturale tradition in non-literate society is to see literate society as inevitably committed to an ever-increasing series of culture lags. The content of the cultural tradition grows continually, and in so far as it affects any particular individual he becomes a palimpsest composed of layers of beliefs and attitudes belonging to different stages in historical time. So too, eventually, does society at large, since there is a tendency for each social group to be particularly influenced by systems of ideas belonging to different periods in the nation's development; both to the individual, and to the groups constituting society, the past may mean very different things.

From the standpoint of the individual intellectual, of the literate specialist, the vista of endless choices and discoveries offered by so extensive a past can be a source of great stimulation and interest; but when we consider the social effects of such an orientation, it becomes apparent that the situation fosters the alienation that has characterized so many writers and philosophers of the West since the last century. It was surely, for example, this lack of social amnesia in alphabetic cultures which led Nietzsche to describe "we moderns" as "wandering encyclopaedias," unable to live and act in the present and obsessed by a " 'historical sense' that injures and finally destroys the living thing, be it a man or a people or a system of culture" (1909: 9, 33). Even if we dismiss Nietzsche's views as extreme, it is still evident that the literate individual has in practice so large a field of personal selection from the total cultural repertoire that the odds are strongly against his experiencing the cultural tradition as any sort of patterned

From the point of view of society at large, the enormous complexity and variety of the cultural repertoire obviously creates problems of an unprecedented order of magnitude. It means, for example, that since Western literate societies are characterized by these always increasing layers of cultural tradition, they are incessantly exposed to a more complex version of the kind of culture conflict that has been held to produce anomie in oral societies when they come into contact with European civilization, changes which, for example, have been illustrated with a wealth of absorbing detail by Robert Redfield in his studies of Central America.40

Another important consequence of alphabetic culture relates to social stratification. In the protoliterate cultures, with their relatively difficult nonalphabetic systems of writing, there existed a strong barrier between the writers and the non-writers; but although the "democratic" scripts made it possible to break down this particular barrier, they led eventually to a vast proliferation of more or less tangible distinctions based on what people had read. Achievement in handling the tools of reading and writing is obviously one of the most important axes of social differentiation in modern societies; and this differentiation extends on to more minute differences between professional specializations so that even members of the same socio-economic groups of literate specialists may hold little intellectual ground in common.

Nor, of course, are these variations in the degree of participation in the literate tradition, together with their effects on social structure, the only causes of tension. For, even within a literate culture, the oral tradition—the transmission of values and attitudes in face-to-face contact-nevertheless remains the primary mode of cultural orientation, and, to varying degrees, it is out of step with the various literate traditions. In some respects, perhaps, this is fortunate. The tendency of the modern mass-communications industries, for example, to promote ideals of conspicuous consumption which cannot be realized by more than a limited proportion of society might well have much more radical consequences but for the fact that each individual exposed to such pressures is also a member of one or more primary groups whose oral converse is probably much more realistic and conservative in its ideological tendency; the mass media are not the only, and they are probably not even the main, social influences on the contemporary cultural tradition as a whole.

Primary group values are probably even further removed from those of the "high" literate culture, except in the case of the literate specialists. This introduces another kind of culture conflict, and one which is of cardinal significance for Western civilization. If, for example, we return to the reasons for the relative failure of universal compulsory education to bring about the intellectual, social and political results that James Mill expected, we may well lay a major part of the blame on the gap between the public literate tradition of the school and the very different and indeed often directly contradictory private oral traditions of the pupil's family and peer group. The high degree of differentiation in exposure to the literate tradition sets up a basic division which cannot exist in non-literate society: the division between the various shades of literacy and illiteracy. This conflict, of course, is most dramatically focused in the school, the key institution of society. As Margaret Mead (1943: 637) has pointed out: "Primitive education was a process by which continuity was maintained between parents and children. . . . Modern education includes a heavy emphasis upon the function of education to create discontinuities-to turn the child . . . of the illiterate into the literate." A similar and probably even more acute stress develops in many cases between the school and the peer group; and, quite apart from the difficulties arising from the substantive differences between the two orientations, there seem to be factors in the very nature of literate methods which make them ill suited to bridge the gap between the street-corner society and the blackboard jungle.

First, because although the alphabet, printing, and universal free education have combined to make the literate culture freely available to all on a scale never previously approached, the literate mode of communication is such that it does not impose itself as forcefully or as uniformly as is the case with the oral transmission of the cultural tradition. In non-literate society every social situation cannot but bring the individual into contact with the group's patterns of thought, feeling and action: the choice is between the cultural tradition-or solitude. In a literate society, however, and quite apart from the difficulties arising from the scale and complexity of the "high" literate tradition, the mere fact that reading and writing are normally solitary activities means that in so far as the dominant cultural tradition is a literate one, it is very easy to avoid; as Bertha Phillpotts (1931: 162-3) wrote in her study of Icelandic literature:

Printing so obviously makes knowledge accessible to all that we are inclined to forget that it also makes knowledge very easy to avoid. . . . A shepherd in an Icelandic homestead, on the other hand, could not avoid spending his evenings in listening to the kind of literature which interested the farmer. The result was a degree of really national culture such as no nation of today has been able to achieve.

The literate culture, then, is much more easily avoided than the oral one; and even when it is not avoided its actual effects may be relatively shallow. Not only because, as Plato argued, the effects of reading are intrinsically less deep and permanent than those of oral converse; but also because the abstractness of the syllogism and of the Aristotelian categorizations of knowledge do not correspond very directly with common experience. The abstractness of the syllogism, for example, of its very nature disregards the individual's social experience and immediate personal context; and the compartmentalization of knowledge similarly restricts the kind of connections which the individual can establish and ratify with the natural and social world. The essential way of thinking of the specialist in literate culture is fundamentally at odds with that of daily life and common experience; and the conflict is embodied in the long tradition of jokes about absent-minded professors.

It is, of course, true that contemporary education does not present problems exactly in the forms of Aristotelian logic and taxonomy; but all our literate modes of thought have been profoundly influenced by them. In this, perhaps, we can see a major difference, not only from the transmission of the cultural heritage of oral societies, but from those of protoliterate ones. Thus Marcel Granet relates the nature of the Chinese writing system to the "concreteness" of Chinese thought, and his picture of its primary concentration on social action and traditional norms suggests that the cultural effect of the writing system was in the direction of intensifying the sort of homeostatic conservation found in non-literate cultures; it was indeed conceptualized in the Confucian tao-'tung, or "orthodox transmission of the way." In this connection it may be noted that the Chinese attitude to formal logic, and to the categorization of knowledge in general, is an articulate expression of what happens in an oral culture (Granet 1934; vii-xi, 8-55; Hu Shih 1922). Mencius, for example, speaks for the non-literate approach in general when he comments: "Why I dislike holding to one point is that it injures the tao. It takes up one point and disregards a hundred others" (Richards 1932: 35).

The social tension between the oral and literate orientations in Western society is, of course, complemented by an intellectual one. In recent times the Enlightenment's attack on myth as irrational superstition has often been replaced by a regressive yearning for some modern equivalent of the unifying function of myth: "Have not," W. B. Yeats asked, "all races had their first unity from a mythology that marries them to rock and hill?" (1955: 194).

In this nostalgia for the world of myths Plato has had a long line of successors. The Rousseauist cult of the Noble Savage, for instance, paid unwitting tribute to the strength of the homogeneity of oral culture, to the yearning admiration of the educated for the peasant's simple but cohesive view of life, the timelessness of his living in the present, the unanalytic spontaneity that comes with an attitude to the world that is one of absorbed and uncritical participation, a participation in which the contradictions between history and legend, for example, or between experience and imagination, are not felt as problems. Such, for example, is the literary tradition of the European peasant from Cervantes' Sancho Panza to Tolstov's Platon Karataev. Both are illiterate; both are rich in proverbial lore; both are untroubled by intellectual consistency; and both represent many of the values which, it was suggested above, are characteristic of oral culture. In these two works, Don Quixote and War and Peace, which might well be considered two of the supreme achievements of modern Western literature, an explicit contrast is made between the oral and literate elements of the cultural tradition. Don Quixote himself goes mad by reading books; while, opposed to the peasant Karataev, stands the figure of Pierre, an urban cosmopolitan, and a great reader. Tolstoy writes of Karataev that-in this like Mencius or like Malinowski's Trobrianders-he

did not, and could not, understand the meaning of words apart from their context. Every word and every action of his was the manifestation of an activity unknown to him, which was his life. But his life, as he regarded it, had no meaning as a separate thing. It had a meaning only as part of a whole of which he was always conscious [War and Peace].

Tolstoy, of course, idealizes; but, conversely, even in his idealization he suggests one major emphasis of literate culture and one which we immediately associate with the Greeks—the stress upon the individual: Karataev does not regard "his life . . . as a separate thing." There are, of course, marked differences in the life histories of individual members of non-literate societies: the story of Crashing Thunder differs from that of other Winnebago (Radin 1926, 1927); that of Baba of Karo from other Hausa women (Smith 1954); and these differences are often given public recognition by ascribing to individuals a personal tutelary or guardian spirit. But on the whole there is less individualization of personal experience in oral cultures, which tend, in Durkheim's phrase, to be characterized by "mechanical solidarity" 41-by the ties between like persons, rather than by a more complicated set of complementary relationships between individuals in a variety of roles. Like Durkheim, many sociologists would relate this greater individualization of personal experience in literate societies to the effects of a more extensive division of labour. There is no single explanation; but the techniques of reading and writing are undoubtedly of very great importance. There is, first of all, the formal distinction which alphabetic culture has emphasized between the divine, the natural, and the human orders; secondly, there is the social differentiation to which the institutions of literate culture give rise; third, there is the effect of professional intellectual specialization on an unprecedented scale; lastly, there is the immense variety of choice offered by the whole corpus of recorded literature; and from these four factors there ensues, in any individual case, the highly complex totality deriving from the selection of these literate orientations and from the series of primary groups in which the individual has also been involved.

As for personal awareness of this individualization, other factors doubtless contributed, but writing itself (especially in its simpler, more cursive forms) was of great importance. For writing, by objectifying words, and by making them and their meaning available for much more prolonged and intensive scrutiny than is possible orally, encourages private thought; the diary or the confession enables the individual to objectify his own experience, and gives him some check upon the transmutations of memory under the influences of subsequent events. And then, if the diary is later published, a wider audience can have concrete experience of the differences that exist in the histories of their fellow men from a record of a life which has been partially insulated from the assimilative process of oral transmission.

The diary is, of course, an extreme case; but Plato's dialogues themselves are evidence of the general tendency of writing to increase the awareness of individual differences in behaviour, and in the personality which lies behind them, 42 while the novel, which participates in the autobiographical and confessional direction of such writers as St. Augustine, Pepys and Rousseau, and purports to portray the inner as well as the outer life of individuals in the real world, has replaced the collective representations of myth and epic.

From the point of view of the general contrast between oral and alphabetically literate culture, then, there is a certain identity between the spirit of the Platonic dialogues and of the novel. 43 both kinds of writing express what is a characteristic intellectual effort of literate culture, and present the process whereby the individual makes his own more or less conscious, more or less personal selection, rejection and accommodation among the conflicting ideas and attitudes in his culture. This general kinship between Plato and the characteristic art form of literate culture, the novel, suggests a further contrast between oral and literate societies: in contrast to the homeostatic transmission of the cultural tradition among non-literate peoples, literate society leaves more to its members; less homogeneous in its cultural tradition, it gives more free play to the individual, and particularly to the intellectual, the literate specialist himself; it does so by sacrificing a single, ready-made orientation to life. And, in so far as an individual participates in the literate, as distinct from the oral, culture, such coherence as a person achieves is very largely the result of his personal selection. adjustment and elimination of items from a highly differentiated cultural repertoire; he is, of course, influenced by all the various social pressures, but they are so numerous that the pattern finally comes out as an individual one.

Much could be added by way of development and qualification on this point, as on much else that has been said above. The contrast could be extended, for example, by bringing it up to date and considering later developments in communication, from the invention of printing and of the power press to that of radio, cinema and television. All these latter, it may be surmised, derive much of their effectiveness as agencies of social orientation from the fact that their media do not have the abstract and solitary quality of reading and writing, but on the contrary share something of the nature and impact of the direct personal interaction which obtains in oral cultures. It may even be that these new modes of communicating sight and sound without any limit of time or place will lead to a new kind of culture: less inward and individualistic than literate culture, probably, and sharing some of the relative homogeneity, though not the mutuality, of oral society.

Summary

Recent anthropology has rightly rejected the categorical distinctions between the thinking of "primitive" and "civilized" peoples, between "mythopoeic" and "logico-empirical" modes of thought. But the reaction has been pushed too far: diffuse relativism and sentimental egalitarianism combine to turn a blind eve on some of the most basic problems of human history. Where the intellectual differences in the cultural traditions of complex and simple societies are given adequate recognition, the explanations offered are unsatisfactory. In the case of Western civilization, for example, the origins are sought in the nature of the Greek genius, in the grammatical structure of the Indo-European languages, or, somewhat more plausibly, in the technological advances of the Bronze Age and the associated developments in the division of labour.

In our view, however, insufficient attention has been paid to the fact that the urban revolution of the Ancient Near East produced one invention, the invention of writing, which changed the whole structure of the cultural tradition. Potentially, human intercourse was now no longer restricted to the impermanency of oral converse. But since the first methods of writing employed were difficult to master, their effects were relatively limited, and it was only when the simplicity and flexibility of later alphabetic writing made widespread literacy possible that for the first time there began to take concrete shape in the Greek world of the seventh century B.C. a society that was essentially literate and that soon established many of the institutions that became characteristic of all later literate societies.

The development of an easy system of writing (easy both in terms of the materials employed and the signs used) was more than a mere precondition of the Greek achievement: it influenced its whole nature and development in fundamental ways. In oral societies the cultural tradition is transmitted almost entirely by face-to-face communication; and changes in its content are accompanied by the homeostatic process of forgetting or transforming those parts of the tradition that cease to be either necessary or relevant. Literate societies, on the other hand, cannot discard, absorb, or transmute the past in the same way. Instead, their members are faced with permanently recorded versions of the past and its beliefs; and because the past is thus set apart from the present, historical enquiry becomes possible. This in turn encourages scepticism; and scepticism, not only about the legendary past, but about received ideas about the universe as a whole. From here the next step is to see how to build up and to test alternative explanations; and out of this there arose the kind of logical, specialized, and cumulative intellectual tradition of sixth-century Ionia. The kinds of analysis involved in the syllogism, and in the other forms of logical procedure, are clearly dependent upon writing, indeed upon a form of writing sufficiently simple and cursive to make possible widespread and habitual recourse both to the recording of verbal statements and then to the dissecting of them. It is probable that it is only the analytic process that writing itself entails, the written formalization of sounds and syntax, which make possible the habitual separating out into formally distinct units of the various cultural elements whose indivisible wholeness is the essential basis of the "mystical participation" which Lévy-Bruhl regards as characteristic of the thinking of non-literate peoples.

One of the problems which neither Lévy-Bruhl nor any other advocate of a radical dichotomy between "primitive" and "civilized" thought has been able to

resolve is the persistence of "non-logical thinking" in modern literate societies. But, of course, we must reckon with the fact that in our civilization writing is clearly an addition, not an alternative, to oral transmission. Even in our buch und lesen culture, child rearing and a multitude of other forms of activity both within and outside the family depend upon speech; and in Western cultures the relation between the written and the oral traditions must be regarded as a major problem.

A consideration of the consequences of literacy in these terms, then, throws some light not only upon the nature of the Greek achievement but also upon the intellectual differences between simple and complex societies. There are, of course, many other consequences we have not discussed-for instance, the role of writing in the running of centralized states and other bureaucratic organizations; our aim has only been to discuss in very general terms some of the more significant historical and functional consequences of literacy. 44