IDEAS ABOUT LANGUAGE*

By M.A.K. Halliday

In view of the two and a half thousand years of linguistics in the West, a tradition in which there have been remarkably few gaps, it is hardly surprising that most people now have rather explicit ideas about language. The contemporary folk linguistics of western man contains not only simple technical terms such as noun and verb but also various more elaborated concepts, like participle and preposition, active and passive, imperative and subjunctive. It must be admitted of course that these are not always very well understood. A public servant known to me once drafted a letter for his head of department to sign; the letter ended 'As soon as the contract is ready, we will send you a copy of it'. It was returned for correction, with the final clause amended to 'we will send you a copy of same'. On being asked what it was he objected to, the senior official replied: 'You can't end a sentence with a proposition!'

Much of our adult folk linguistics is no more than misremembered classroom grammar (or was, in the days when there still was classroom grammar); it may be wrong, but it is certainly not naive. If therefore we want to ask the question, what is it that people naturally know about language, simply by virtue of the fact that they speak and understand, we have to go back a little farther; and since we cannot go back in the history of the culture, at least not back to ultimate beginnings, we will go back for a brief excursion in the history of the individual. What does a child know about language before his insights are contaminated by theories of the parts of speech?

The earliest linguistic terms an English-speaking child learns to use are not terms like noun and verb, or even word and sentence; in fact they are not nouns at all — they are verbs, typically say and mean, and shortly afterwards tell. So for example Nigel, at 1 year 8 months, told the story of what had happened on a visit to the children's zoo. He had been stroking a goat, while in his other hand clutching a plastic lid he had picked up somewhere; the goat worked its way round so that it could nibble at the lid, but the keeper took it away. Here is Nigel's account:

goat try eat lid . . . man said nò . . . goat shòuldn't eat lid . . . [shaking head] gòod for it.

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'The goat tried to eat the lid. The man said "No. the goat shouldn't eat the lid - not good for it".' (See Halliday, 1975.)

A child must understand a great deal about the nature of language to be able to report speech in this way. He must have internalized the concept of an act of meaning — of speech as symbolic action, distinct from but interdependent with acts of a non-symbolic kind. And when we look more closely, we find that he can already report acts of meaning even before he has an explicit verb say with which to do so. Here is Nigel at 1 year 7 months. A kite had fallen and its string lay stretched along the ground; his father warned him not to trip over it. Nigel recalled the incident later, saying

Translated into adult, Nigel's sentence 'meant', '(there was a) kite, (and Daddy said "there's a) kite, mind (the) string".' Already for Nigel at a year and a half, saying is a part of experience; like other actions and events, it can be observed, recalled and narrated.

By 1; 9 Nigel has distinguished 'saying' from 'meaning', e.g.:

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lady said "don't touch Penny; not feeling well" "lailai" . . . "lailai" Ì don' know lailai mean "trýget evl" . . . what that mean?

He also has a clear concept of naming, which is the converse of meaning. Once again, the concept is developed long before it gets a name, and Nigel progresses towards it through various stages. At 10 months, it is dò 'lets look at this together' (togetherness through shared experience); at 13 months, æ:::dæ 'let's look at this — you say its name!'; at 16 months, ad dò 'tell me its name!'; at 20 months, whát thàt, and at 24 months, what's that cálled?

Before he is two years old, a child knows quite a lot about the nature and functions of language. By this time, he is not only using language; he is also beginning to talk about it. This does not exclude the silent child, the late talker; he may say nothing, but such meanings are within the scope of his understanding. The child is constructing a folk linguistics, in which (i) saying, and (ii) naming-meaning denote different aspects of the same symbolic act. And language functions for him both in reflection and in action: as a way of thinking about the world (including about himself), structuring his experience and expressing his own personality, and as a way of acting on the world, organizing the behaviour of others and getting them to provide the goods-and-services he wants. The one thing he does not do with language at this stage is to impart information. In fact — and despite the predominance of this motif in adult thinking about language — the imparting of information never really becomes the single primary function of language even among adults (except perhaps those who do it for a living, such as university professors).

Soon, however, the child will go to school; and once he is there, his natural ideas

about language will be superseded by the folk linguistics of the classroom, with its categories and classes, its rules and regulations, its do's and, above all, its don'ts. Here a fundamental ideological change takes place in the child's image of language. Up till now, language has been a resource, a potential for thinking and doing; he has talked about it in verbs, verbs like *call* and *mean*, *say* and *tell*, and *rhyme*. From now on, language will be represented for him as a set of rules. And the rules are categorical — they operate on things; so he must talk about language in nouns, like *word* and *sentence*, and *noun* and *verb*, and *letter*.

It would be wrong to suggest, however, that the image of language as resource is totally submerged and lost. Unlike the linguistics of the classroom, which is codified and therefore conscious and explicit, the linguistics of the family and neighbourhood, though it is *coded* (organized semantically), is not codified (organized as a cultural institution); it is below the level of conscious awareness. For this reason it has considerable staying power; and the adult, however much he may traffic in categories and rules, and sentences ending in prepositions, and all the niceties of verbal etiquette which show how well he was brought up, retains some insights of the earlier kind, and even adds to them in the course of his everyday informal discourse, a great deal of which is talk about talk. So when we say "I know what he means. But he could have worded it differently." we are showing an awareness of language as a multiple coding system, in which meanings are coded or expressed in wordings; we also know that the wordings are in turn expressed, or recoded, in speech (and, in some languages, in writing); and this is exactly what the linguist means when he says in more ponderous terms that language is a tristratal system consisting of a semantics, a lexicogrammar, and a phonology. The committee man who says about some resolution that we should "keep the meaning, but change the wording" is expressing the folk linguistic insight that the coding is not oneto-one; it is always possible to change how you say what you mean — though in fact, as he would probably admit, the meaning that results is never exactly the same as it was before.

So we have enshrined in our folk linguistics these two views, one of language as resource, the other of language as rule. The two co-exist; but since one is a product of our primary socialization, and belongs to the reality that is learnt at our mother's knee, while the other is part of a secondary reality and belongs to the realm of organized knowledge, they impinge on each other very little. In most of our conscious thinking, the dominant model is that of language as rule; in school we learn the formal grammar of logic, not the functional grammar of rhetoric; and it is only when we come across the writings of those with a different vision of language, like Malinowski, Hjelmslev and Whorf, or alternatively when we make a deliberate effort to change the prevailing image, as some teachers and educators are trying to do, that the notion of language as resource surfaces from our unconscious and we begin to build on the insights that we possess by virtue of this simple fact, observed from the moment of birth (if not already before), but so easily forgotten by philosophers of language, that people talk to each other.

Let us consider, in this light, the earliest concepts of western linguistic thought (Robins, 1967: Ch.2; Dixon, 1965: Pt.2). We can only guess at what went on before the development of writing; many non-literate cultures have extensive folk taxonomies for different types of speech event and the social values which accrue to them (see Bauman and Sherzer (eds.), 1975, for accounts of these in Tzeltal, Mayan, Maori, Iroquois, etc.). It is by no means unlikely that language was a topic of exploration in pre-classical times, with what Peter Minkus calls 'campfire grammars' as a forum of linguistic ideas. It is noticeable that Plato, in addition to his systematic observations on language in the Sophist and elsewhere, and the elaborate etymological fantasy of the Cratylus, often uses language as a source of his analogies; and this suggests that intellectual discussion of language was a common feature in fifth century Athens. We can only guess what forms it took. Little is known of the work of Protagoras and the sophists, and what is known comes largely from their detractors; but from these slender indications, it seems likely that it is they who were the originators of systematic linguistics in the West. According to Diogenes Laertius, Protagoras identified the basic speech functions of statement, question, command and wish; and it was these that formed the basis for the first steps in grammatical analysis.

The sophists were concerned with rhetoric; with the nature of argumentation, and hence with the structure of discourse. We know that they were familiar with elementary grammatical categories like number and gender. We do not know how far they took the analysis of sentence structure. But it seems likely that the insight recorded by Plato in the Sophist, that a piece of discourse consists of two parts, $\mathring{o}\nu\rho\mu a$ and $\mathring{\rho}\mathring{\eta}\mu a$, was one of their achievements. This was an analysis of a unit of discourse considered as something that is arguable, something that can be maintained, denied, disputed, contradicted, doubted and urged. It was not an analysis in terms of logical structure, and it said nothing about truth. What would be the meaning of $\mathring{o}vo\mu a$ and $\mathring{\rho}\mathring{\eta}\mu a$ in such a context? Here is how Plato introduces these terms, in the Sophist (261-3). Stranger: "There are two modes of the expression of existence by means of sound. ... That which is an expression for actions we call $\dot{\rho}\dot{\eta}\mu a$. The vocal sign for those who do the things, is the $\ddot{o}\nu o\mu a$ ". And later, "If we combine ὑήματα with ὀνόματα, we are not only naming; we are doing something (οὐκ ὀνομάζει μόνον, ἀλλά τι περάινει); that is why we call it discourse". And finally "Discourse (λόγος) must be about something; it cannot be not about anything (λόγον ἀναγκαίον . . . τινὸς εἶναι λόγον, $\mu \dot{\eta}$ δὲ τινὸς ἀδύνατον)". The Stranger gives an example: "I will say a piece of discourse to you, in which a thing and an action are combined, by means of $\mathring{o}vo\mu a$ and $\mathring{\rho}\mathring{\eta}\mu a$; you tell me who the discourse is about ... Theaetetus is sitting... Who does this discourse speak of?" And Theaetetus answers, "Of me. It is about me."

There are three distinct and important steps here. First, there is the identification of two grammatical classes based on meaning, on semantic function: verb, expressing (an) action, and noun, expressing (the) actor; the two combine to make up a piece of discourse. Here verb and noun are the names of *classes*; but they are defined by their

functions — functions in transitivity, in the linguistic representation of actions and events — and, naturally, the verb is identified first, the noun being then derived from it. Secondly, discourse must be about something; so the noun also functions as 'what the discourse is about'. Plato does not label this function; Jowett translates using the term 'subject', but it is not subject in the later Aristotelian sense, from which we get subject-predicate analysis; it is rather what in modern linguistics is called 'theme'. A discourse must have a theme. Thirdly, once we form discourse, by combining words into structures, we are not just naming: we are accomplishing $(\dot{\alpha}\lambda\lambda\dot{\alpha} \tau\iota\pi\epsilon\rho\alpha\dot{\nu}\epsilon\iota)$. Discourse is a mode of doing: whoever says something, does something.

It is this last point in particular which makes it probable that the theory derives from the sophists. The immediate context is, of course, a refutation of sophist theory, especially sophistical relativism; the Stranger goes on to relate discourse to the question of truth. But the basic view of language is a rhetorical one. A sentence has a theme; this is what makes it arguable — gives it the potential for being stated, refuted, queried and so on. And stating, refuting, querying — all these are forms of action. The Platonic model of language, in this respect, seems to have remained very close to sophist thought.

The next steps we know of were taken by Aristotle, and with Aristotle the picture of language undergoes a significant change. Aristotle was above all a logician. In the controversy about the arbitrariness of language — whether the relation of language to the real world of experience was natural or conventional — where Protagoras had emphasized language as natural symbol, and Plato (in the mouth of Socrates) had allowed for both possibilities, Aristotle opted explicitly for the conventionalist viewpoint. Names arise solely by 'contract' or convention; nothing is by its nature a name (On Interpretation II, 16a.27). Out of the earlier notion of $\lambda \dot{\alpha} \gamma \sigma_{\beta}$ as connected speech or discourse has evolved the concept of 'sentence', which likewise has meaning by convention (ibid. IV, 17a.1). The sentence is made up of parts – the expression μέρος λόγου 'part or component of the sentence' (the term which eventually found its way into English as part of speech), although it does not figure as a technical term in Aristotle, derives from his terminology; each of these parts has meaning by itself, but only when the parts are combined do they form a judgment such that one can say whether it is true or false. It is the sentence as bearer of truth value - the proposition - with which Aristotle is primarily concerned. Other types of sentence, such as prayers, he admits to be meaningful; but he considers that, since they lack truth value, they belong to the province of rhetoric or poetics (ibid. IV, 17a.5).

So $"ovo\mu a"$ and "oronized "oroni

something to be stated in terms of classes and not of functions. Hence the Aristotelian image of language is that it is a set of constituent structure rules. In the *Poetics* Aristotle enumerates the units of discourse, including letters (the ultimate constituents — in fact sound units, as in the English sense of *letter* in the linguistics of 1600-1800), syllables, conjunctions, articles, nouns, verbs, affixes and sentences; and he defines these units in terms of rules for their combination (*Poetics* 1456^b - 1458^a).

This is a long way from the sophists' ideas about language, and even from Plato's. The sophists saw language as a resource; as a mode of action and a means of putting things across to others. They were concerned with meaning, but not with truth value; if language had any relation to truth this lay in its ability to demonstrate that truth was relative to the believer, and that there was another side to whatever question was at issue. Aristotle saw language as a set of rules; as a mode of judgment and a means of affirming and denying, without reference to other people. He was concerned with truth value, and hence subordinated language to the structure of logic.

So in the earliest flourish of western linguistics we can trace the source of our original metaphor. In the way a child growing up in our culture develops his ideas about language, in the folk linguistics of home and school, we can recognize these two distinct cognitive styles. The child's shift of perspective, from an unconscious awareness of language as doings, as a way of achieving by acting on others, to a conscious scrutiny of language as norms, or rulings, has its counterpart in the shift of perspective from language as rhetoric to language as logic in the late classical period in Greece.

The changed conception of grammatical structure, from a configuration of functions defined within language to a bracketing of constituents representing functions defined outside language (in logic), symbolizes the beginnings of a split between ethnographic and philosophical linguistics which has persisted to the present day.

We can follow these two strands throughout the subsequent history of ideas about language in the west. The one stems from Aristotle; it is 'analogist' in character, based on the concept of language as rule, and it embeds the study of language in philosophy and logic. The other has, for us today, less clearly defined origins, but it can probably be traced to Protagoras and the sophists, via Plato; it is 'anomalist' in character, and has a marked element of Stoic thought in it. It is not philosophical (the Stoics were the earliest scholars explicitly to separate linguistics from philosophy, and grammar from logic) but rather descriptive or, in a modern context, ethnographic; and the organising concept is not that of rule but that of resource.

Let us try to summarize these two traditions, as they have persisted through the ages. In doing so, we shall inevitably be grossly oversimplifying; in particular we should explicitly disclaim the suggestion that every school, every scholar and every work must belong squarely to one tradition or the other. Most of them combine ideas, in various measure, from both. But it may be possible to give some impression of a pattern that is to be found recurring throughout the history of ideas about language in western thought.

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Broadly, then, we can identify two images of language: a philosophical-logical view, and a descriptive-ethnographic view. In the former, linguistics is part of philosophy, and grammar is part of logic; in the latter, linguistics is part of anthropology, and grammar is part of culture. The former stresses analogy; is prescriptive, or normative, in orientation; and concerned with meaning in relation to truth. The latter stresses anomaly; is descriptive in orientation; and concerned with meaning in relation to rhetorical function. The former sees language as thought, the latter sees language as action. The former represents language as rules; it stresses the formal analysis of sentences, and uses for purposes of idealization (for deciding what falls within or outside its scope) the criterion of grammaticality (what is, or is not, according to the rule). The latter represents language as choices, or as a resource; it stresses the semantic interpretation of discourse, and uses for idealization purposes the criterion of acceptability or usage (what occurs or could be envisaged to occur).

The degree and kind of idealization involved is a key point of difference between the two perspectives. In philosophical linguistics the level is set very high; language has to be reduced as nearly as possible to an artificial logical language — hence the improbable examples used by philosophical grammarians, such as the famous *Socrates albus currit bene* 'white Socrates runs well' of medieval modistic grammar. Ethnographic linguistics, by contrast, keeps as close as possible to real language, spoken or written; when the linguist has to construct examples, he takes care to make them convincing.

It does not seem very difficult to discern that the two views are in no way contradictory. Yet they are often made to appear so. Throughout the history of western linguistics they have drifted now closer, now further apart; the last two decades have seen a very sharp polarization between them, but now the gap is closing once again. For most of the time the dominant strand has been the philosophical one. It appears in medieval linguistics in the theories of the Modistae, who laid the foundations of formal syntax; in their successors the French 'rationalist' school of Port-Royal, with its Aristotelian conception of scientific knowledge; and in the Chomskyan structuralist-transformationalist theory of today. Philosophers of language tend to have a very explicit view of the nature of a theory, and of what constitute valid modes of reasoning; they tend to dismiss the ethnographers as non-theoretical, because their theories are not of the right kind. Chomsky's criticism of Hockett for being right for the wrong reason is very reminiscent of Aristotle's criticism of the sophists for knowing things in an 'accidental' way. Both formulations mean simply that the two ideologies differ as regards what they consider to be an explanation.

Ideologically, philosophical linguists tend to be absolutists, while ethnographic linguists tend to be relativists. The relativists of the ancient world were of course the sophists, who held that truth was relative to the time, the place and the individual subject; but this was a general philosophical outlook. Relativism as a specifically linguistic viewpoint appears only in the modern post-Renaissance period, when linguists first began to describe more than one language. Describing different languages is a relatively recent

preoccupation: and with it the difference of ideology appears in a new guise, as an issue between language universals and language variables. When languages come to be seriously compared with one another, the question arises: are all languages alike, or are they different?

Presumably everyone agrees that there are certain respects in which all languages are alike. All languages consist of meanings, wordings and sounds; they all have names for things; they all have melody, rhythm and syllabic articulation. Equally, everyone agrees that there are certain respects in which languages differ: not only do they obviously have different names for things, they also construct these names differently, have different kinds of melody and rhythm, and different ways of wording and of sounding. The issue is, simply, which is to be the more emphasized, the uniformity or the variety. This is really the old 'analogy-anomaly' controversy metaphorized into a modern form; but it is a critical issue. Philosophers of language stress the universals; they make all languages look different. When new languages came to be described by European linguists, from the early seventeenth century onwards, first the modern European languages and then languages from further afield, both these two opposing tendencies became apparent. Either every language is treated as a version of Latin, or each language is described in its own terms.

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The consequences of this are still with us today. Transformational linguistics made extreme claims about universals. Since these claims were couched in terms of a formal theory, they could not be empirically invalidated: if, for example, it is claimed that in all languages the subject precedes the predicate (the prior assumption being of course that all languages have subject and predicate), then if a language turns up in which the subject follows the predicate all one need do is to set up an abstract representation in which the subject precedes the predicate and derive the other one from it. This is a harmless enough exercise. What is not harmless, however, is the nature of the chosen universals. The features to which this universal status is assigned are largely features of English, which has replaced Latin as the huntingfield of philosophical linguists; or, at best, features of what Whorf called 'Standard Average European'. They are not any longer the crude and easily penetrated absurdities of a century ago, when the pluperfect subjunctive was likely to be foisted on to a language such as Malay or Chinese; they are much more subtly disguised — but they are European all the same. Modern philosophical linguistics is distressingly ethnocentric. It presents all languages as peculiar versions of English. In this situation it seems not enough for ethnographic linguists simply to go on with describing each language in its own terms. This cuts no ice at all. What they need to do perhaps is to turn the tables - to describe English in terms of categories derived from other languages, to interpret it as a peculiar version of Chinese, or Hopi, or Pitjantjatjara. With an effort of this kind universal linguistics might come to be freed from ethnocentricity and begin to make a serious contribution to the understanding of human cultures.

It is not easy to penetrate under the skin of another language, especially one from a culture that is very remote from one's own. This should not be a problem if we take

seriously the claim that whatever meanings are expressed in the other language can also be expressed in one's own, allowing for the invention of new names where necessary. But what matters in language is not only what can be expressed but what is; in particular, what is coded — what meanings are systematized, and how these meanings are organized in their contrasts and combinations. Structural descriptions of sentences do no more than scratch the surface of language; and even here the very strength of the philosophers' insights into logical structures has distracted attention from the real nature of structural relations in language.

Our linguistics today is still very close to a folk science. We have progressed very little, in these two and a half thousand years, from commonsense everyday knowledge. Even our interpretations of the best described languages of our own culture are very limited in scope, and still more limited in imaginative power. In this context it is interesting to see what happened in the sixteenth century when western linguists first found themselves faced with exotic languages, and what was the impact of this on their own ideas about language. What happened, for example, when they were faced with the writing system of Chinese?

Perhaps the greatest single instance of the folk linguistic genius is the evolution of writing. In order for a language to be written down (to be 'reduced' to writing, in the very appropriate folk linguistic metaphor), it must at the same time have been analysed to a rather sophisticated level. In modern times this is often a conscious process, as happens when missionaries or other language planners design alphabets for unwritten languages; but in the past it was usually unconscious, the cumulative effect of a number of small steps taken over a long period of time. In the course of this long evolution, a language usually got the sort of writing system it deserved. So in the ancient world languages with rather tight syllabic structure tended to develop syllabaries; those with looser syllabic structure ended up with alphabets; and those with consonantal roots, the Semitic ones, evolved something in between the two. Of course the process is often affected by historical accidents; once a writing system evolves, it takes on a life of its own and can be borrowed by others. Such 'accidents' range from trivial distortions like the demise of the Old English thorn, which the Norman scribes could not write, to massive effects such as the adoption of the Chinese writing system for Japanese, a language to which it was not well suited at all. Interestingly, Japanese ended up with a script which, though extremely complicated, represents rather well the complex pattern of the language that resulted from large-scale borrowing - a symbiosis of two very different sub-systems, one indigenous and the other imported from Chinese.

Chinese is unusual in having a phonological structure that is not well suited either to syllabic or to alphabetic writing; the only natural analytic unit is the hemisyllable, and this did form the basis of Chinese phonological theory, in which the primary elements were 'initial' and 'rhyme'. But Chinese is very well suited to another kind of writing system altogether, one in which the written symbol represents, not any unit of sound but a unit of wording, the morpheme. Chinese writing is morphemic. For a language like

English, a morphemic script would be a monstrosity; but for Chinese it works very well. Now in classical Chinese, unlike the modern language, most words consisted of only one morpheme; so, taking the script as the representation of the classical language, which was the language of most written texts up to this century, it is not too far out to interpret it in terms of western categories as a word-symbolizing, or 'logographic' script ('lexigraphic' would be more accurate). One thing that it is not is ideographic; indeed the notion of an ideographic script is self-contradictory, since a visual communication system becomes a script only when its symbols are mapped on to the elements of a language, and ideas are not linguistic elements. Ideographic symbols belong to that stage in the evolution of writing before it has become writing, though of course people may always continue to use ideograms for a range of special purposes, and the modern Japanese use of Chinese characters has a certain ideographic flavour about it.

European scholars knew nothing of Chinese writing until the mid-sixteenth century. At that time, reports and specimens of it began to filter through (see Firth, 1957: 92-120, esp. 104 n.3). The problem of understanding what kind of a script it was presented an unfamiliar challenge to their ideas about language.

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In 1588 Timothy Bright published his book Characterie, an arte of shorte, swifte and secrete writing by character. In it he put forward a new writing system, or 'charactery', a highly original venture out of which two distinct intellectual traditions were to emerge, one of shorthand, the other of 'universal character'. Introducing his system, Bright related it to an interpretation of Chinese writing: 'Upon consideration of the great use of such a kinde of writing, I have invented the like: . . . every character answering a word' (Firth, 1957: 103). Bright's interpretation of the nature of the Chinese script was essentially right.

In contrast with Bright's formulation 'every character answering a word' is the following account by Francis Bacon written some fifteen years later, in the *Advancement of Learning* (1605): 'the Chinese write in characters real, which express neither letters nor words... but things or notions'. Bacon's interpretation was wrong.

Matteo Ricci, the Jesuit scholar and missionary to China, wrote in his *Journals* 1583-1610, published in Latin translation in 1615, '[in Chinese] every word, just as every object, is represented by its own ideograph, or symbol, used to represent a thought ... every object has its own appropriate symbol' (Ricci, trans. Gallagher, 1953: 27). Ricci seems to have been uncertain, though inclined towards the wrong interpretation.

So Bright's original insight was lost, and a mistaken view of the nature of the Chinese script became part of western folklore about China. It is intriguing to find the same issue raised over 200 years later in a lengthy dispute between the American philosopher Peter du Ponceau, who published A Dissertation on the Nature and Character of the Chinese System of Writing (Philadelphia, 1838), and Samuel Kidd, the first Professor of Chinese in the University of London, whose book China, or Illustrations of the Symbols, Philosophy, Antiquities, Customs, Superstitions, Laws, Government, Education and Literature

of the Chinese appeared in London in 1841. Kidd expressed himself somewhat sarcastically at du Ponceau's expense; but in fact du Ponceau was right (he actually used the term 'lexigraphic'), while Kidd was simply repeating the folk view of Chinese writing which prevailed, then as now, in the west (Firth, 1957: 156-172, esp. 163; Halliday, 1967: 9).

Not surprisingly, the folk linguistics of Chinese provides an unambiguous clue to the nature of the Chinese script. Just as, in English folk terminology, the word *letter* meant both the written symbol and what it stands for in the language (an element in the sound system, roughly a morphophoneme), so in Chinese the term zi zi means both the written symbol (the character) and what it stands for in the language (in this case a morpheme — Chinese folk linguistics contains no term for 'word'). But the Europeans did not have the advantage of knowing Chinese, let alone Chinese linguistics. They lacked certain relevant information, such as the fact that Chinese characters have unambiguous readings, that synonyms are not written alike, and so on. So if Bright's insight was lost, this was partly through lack of evidence. More significant, however, was the fact that the ideographic fallacy fitted in very well with the mainstream of humanist thinking about language.

What was the intellectual and ideological context of the linguistics of those times (Salmon, 1966)? The demise of Latin had left Europe without a lingua franca, just when one was most needed; people were, obviously, going to speak in their own tongues, and the hope was that at least a written language might be found that was truly international. As Robert Boyle put it in a letter to Samuel Hartlib in 1646, 'I conceive no impossibility that opposes the doing that in words that we already see done in numbers' — in other words, we write a figure 5 but read it cinque or cinq or fünf or five; why should we not write a unified symbol for tree and read it albero or arbre or Baum or tree, with everyone (in Cave Beck's words) 'reading out of one common language their own mother tongues'? It seemed a reasonable goal.

But there was much more at issue than the need for international communication. The deeper concern was with the nature of knowledge itself, and in particular the nature of systematic, organized or scientific knowledge. The demand for a 'universal character' was also a quest for the 'universal' in the medieval sense of a universal order of things, for a system of all there is to be known. The early humanist linguists inherited an intellectual tradition which contained, over and above the christianized Aristotelian philosophy and Ptolemaic cosmology of the establishment, a rich assortment of less reputable sources, including the art of memory and its associated cosmological theories. The medieval art of memory goes back to Simonides and the rhetoricians, who evolved it as a mnemonic device, the use of images as a way of remembering complicated lists of facts, as was necessary for example in the conduct of a lawsuit; but it had become interpenetrated with the hermetic tradition, with cabbalist and other mystical systems, and so tended to be regarded with some suspicion by the spiritual authorities. These systems introduced not only elements of sorcery, in which verbal magic played an important part, but also cosmologies which challenged the established view. Giordano Bruno, whose Shadows of Ideas and Art of Memory were imaginative developments of the thirteenth-century Grand Art of Raymond Lully, with its Homeric 'golden chain' linking all things to each other and heaven to earth (Yates, 1964), was burnt as a heretic in Rome in 1600. Other well known examples at the time were the 'memory theatre' of Giulio Camillo, and the 'method' of Peter Ramus (Pierre de la Ramée) (Ong, 1958). Ramus rejected the classical use of images as the basis of memory, regarding it as accidental and unsystematic, and took the art of memory out of rhetoric into logic, where 'every subject was arranged in "dialectical order" '- that is, taxonomically (Yates, 1966: 232). Frances Yates writes of him (ibid: 234): 'Though many surviving influences of the old art of memory may be detected in the Ramist "method" of memorizing through dialectical order, yet he deliberately gets rid of its most characteristic feature, the use of the imagination. No more will places in churches or other buildings be vividly impressed on the imagination. And, above all, gone in the Ramist system are the images, the emotionally striking and stimulating images the use of which had come down through the centuries from the art of the classical rhetor. The "natural" stimulus for memory is now not the emotionally exciting memory image; it is the abstract order of dialectical analysis, which is yet, for Ramus, "natural", since dialectical order is natural to the mind."

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So the new scientific mode of thought embodied the pursuit of the same goal that had fired the medieval imagination, that of providing a conceptual passkey to the organization of knowledge. And such a venture needed a systematic notation. This was where the significance of the Chinese script came in. The seventeenth century philosophical grammarians, men like Cave Beck, Francis Lodowick, Samuel Hartlib, Seth Ward and above all George Dalgarno and John Wilkins in England (many of them founder members of the Royal Society), as well as Mersenne in Paris, Bisterfeld at Weissenberg and, subsequently, Leibniz, who faced the problem of organizing, codifying and transmitting scientific knowledge, saw this clearly as a linguistic problem: knowledge was organized and stored in symbols. But they also inherited an immense suspicion of ordinary language, which in prevailing humanist ideology was regarded as at best arbitrary and at worst downright deceitful. Bacon had been one of the fiercest critics of language, deploring 'the false appearances that are imposed upon us by words'. Vivian Salmon comments: 'It is difficult to say when this distrust of words first appeared' (1966: 386); but it is a recurrent theme of humanist scholarship. In part, no doubt, it was a reaction against what were regarded as the excesses of late medieval grammar, which like other aspects of medieval scholarship tended to become rather rarefied: the University of Paris had attempted to proscribe the teaching of grammar in 1515 (the year Ramus was born). But it was also a deeply-felt attitude to language itself.

Words were dangerous; not only because they were ambiguous, and led to strife, though this is a familiar complaint, but also because they were seductive. They presented a false appearance of reality, and had to be cleared out of the way so as to expose the true reality which lay beyond. Scientific endeavour could be advanced only by attending to *things*, and to the logic of the relations between things: by observation, not by talk. Ideally it should have been possible to do away with words altogether, and put things in

their place; and this must have been a contemporary impression of what it was that was being propounded, because the attitude is caricatured by Swift. In the *Voyage to Lagado* Gulliver visits the School of Languages, where he finds

"... a Scheme for abolishing all Words whatsoever... since Words are only Names for *Things*, it would be more convenient for all Men to carry about them, such *Things* as were necessary to express the particular Business they are to discourse on."

Gulliver's Travels, Collins ed., 1953, pp. 203-4

The passage continues:

'And this Invention would certainly have taken place, to the great Ease as well as Health of the Subject, if the Women in Conjunction with the Vulgar and Illiterate had not threatened to raise a Rebellion, unless they might be allowed the Liberty to speak with their Tongues, after the Manner of their Forefathers: Such constant and irreconcileable Enemies to Science are the common People.'

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Since, however, we have to put up with words, the best we can do is to reduce their arbitrariness. Words should match things, in some way or other representing their true nature. For this purpose, a 'universal character' (that is, a writing system) was not enough; there had to be constructed a new 'philosophical language' in which words would represent things in some natural, non-arbitrary manner. This is a recurrent aspiration of those who reflect on language - the hope of finding some natural connection between meanings and sounds; it is one of the two opposing views on linguistic evolution that are put forward by Plato in the Cratylus. It is often ridiculed by linguists, who insist (rightly) on the essential arbitrariness to be found at this point in the system. Yet it is less absurd than it is made to seem - there can be varying degrees of non-arbitrariness built in to the linguistic coding process. One of those who thought it possible to create such a connection was Mersenne, who searched for precedents in existing languages in the form of what today would be called 'phonaesthetic' patterns, where a particular sound is regularly associated with a particular area of meaning, like the -ump in Modern English hump, bump, lump, rump, plump, stump and clump. Phonaesthetic series display a kind of non-arbitrariness; and they are particularly characteristic of certain languages, of which English happens to be one. Nevertheless it is difficult to create a whole vocabulary along these lines; and what those who were inventing new languages in fact set out to do was to construct words so that they reflected the relations between things (the 'dialectic order' of Ramus). This is a notable feature of the two most successful philosophical languages that were actually constructed, those by George Dalgarno (Ars Signorum 1661) and Bishop John Wilkins (An Essay towards a Real Character and a Philosophical Language, 1668). It did not seem to the proponents of such schemes that there was any inconsistency between this activity of inventing new languages, which if successful would have required considerable time to be spent in learning them, and their proclaimed desire to avoid wasting time on language, expressed for example by Bishop Wilkins himself in what he had written a quarter of a century earlier: 'that great part of our time which is now required to the learning of words might then be employed in the study of things' (Mercury, or the swift and secret messenger, 1641).

The original 'real character' projects stopped short of constructing words - that is, of giving phonetic values to the symbols, and rules for their combination; but they did represent conscious attempts at a universal symbolism, with (in the words of Seth Ward) 'symbols . . . for every thing and notion'. And this idea is in a direct line of descent from the classical and medieval memory systems. Frances Yates comments (1966: 378): "...a whole group of writers...laboured to found universal languages on "real characters"... The universal languages are thought of as aids to memory and in many cases their authors are obviously drawing on the memory treatises. And it may be added that the search for "real character" comes out of the memory tradition on its occult side. The seventeenth-century universal language enthusiasts are translating into rational terms efforts such as those of Giordano Bruno to found universal memory systems on magic images which he thought of as directly in contact with reality' (p. 378). And when Leibniz formed his project for the 'Characteristica', a universal language with a calculus associated with it, he explicitly referred to the Cabbalist and Lullist systems, as well as to Chinese writing, which he described as pictographic and 'in the nature of memory images'. (Despite the interest in pictographic symbols, and in the 'natural' relation between words and things, it is noteworthy that the characteries that were actually devised - including the earliest, that of Timothy Bright - showed little tendency to employ iconic symbols, pictorial or otherwise. The symbols themselves were abstract and conventional. What was 'natural' was their taxonomic arrangement into primary signs, for genera, and secondary signs and diacritics for the descending subcategories.)

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As a systematization of all knowledge, Wilkins' monumental universal language must be counted a failure. It was not a description of knowledge at all. But it was a description of meaning. It was in fact a brilliant essay in lexical semantics, revealing the principles on which languages organize names for things. As such it had a considerable impact on our ideas about language - not least because it was the basis on which Peter Mark Roget constructed his Thesaurus 150 years later. It is in a way ironical that the fundamental insights of an intellectual movement that explicitly sought to minimize the role of language in scientific thought should turn out to be, first and foremost, insights into language itself, into the taxonomic principles of naming which form an essential element of semantic structure. And both these aspects of the movement's ideology have gone into our present-day ideas about language: the understanding of the organization of word meanings on the one hand, and on the other hand the curious image of language as distortion of reality, as a barrier to the clear-sighted apprehension of true relationships which are relationships among things. One only has to consider modern attitudes on the subject of language in education to realise how deeply this second, negative view has penetrated into our thinking about language.

French rationalist grammar, which was a continuation of the scholastic tradition, and English universal semantics, with its origins in a rather different strand in medieval

thought, represent two of the main trends in linguistics in seventeenth century Europe. In the eighteenth century, the picture was beginning to change. The ethnographic approach was now coming to the fore, as linguists turned their attention to the vernacular languages of Europe and to the languages of Asia, Africa, the Pacific and the New World; and by the nineteenth century this had become the dominant perspective on language. It was primarily the ethnographic interpretation that was elaborated in the major European schools of the first half of the present century – the Prague school, the London school, and also the highly theoretical 'glossematic' school of Copenhagen - as well as in the anthropological linguistics of Boas and Sapir in America. The development of American structuralist linguistics - a movement that was notably different from what was called 'structuralism' in Europe - began to reassert the philosophical approach; and when Chomsky, bringing to bear the methods of logical syntax, showed that it was possible to formalize the American structuralist model of language, in what was the first successful attempt at representing natural language as a formal system, this became once again the dominant perspective. Linguistics became philosophy of language, as it has done from time to time throughout its history; and grammar became logic.

If Chomsky had admitted that he was building on the work of his predecessors, the ensuing dialogue between philosophers and ethnographers of language could have been very fruitful and rewarding. Instead he presented his theories in the form of a violent polemic aimed directly at those whose model of language he was taking over; in the course of this he so misrepresented the work of his other contemporaries and forerunners that for the following decade and more it was impossible for the two groups to engage in any dialogue at all. Probably never before in the history of ideas about language have the two views, of language as resource and language as rule, been made to seem so incompatible. The difference between the two was presented as an opposition between a concern with language as system and a concern with language as behaviour (competence and performance, in the Chomskyan terminology). In fact, however, both approaches are equally concerned with the system – with explaining the fundamental nature of language. Where they differ is in how they see the relation between system and behaviour. It gradually became clear that the price to be paid for the Chomskyan type of formalism was too high; it required a degree of idealization so great as to reduce natural language back to the status of an artificial syntax. Once its claims for psychological reality could no longer be sustained, transformation theory lost its original glamour; and today we are witnessing a retreat from these extreme positions (the field of child language studies provides a striking instance of this) and an attempt to reconcile the philosopher's demand for being explicit with the ethnographer's demand for being relevant.

In the issue of language as resource or language as rule, it has generally been the rule-oriented thinker who insists that the two views are incompatible; who says, in effect, 'You may agree with me, but I don't agree with you'. As in the history of the individual, so in the history of ideas it is the secondary, restructured reality that has to be made to exclude the primary one, not the other way around. Hence it is made to appear by the

successors to the formal tradition that, in order to accept language as rule, one has to reject language as resource. This lack of symmetry between the two ideologies is very striking. The softer view can accommodate the harder — the rhetorician can believe in logic, the anomalist in analogy, the empiricist in reason — but not the other way round. It is as if the rule-giver, the tough-minded member of the pair, has to maintain as part of his conceptual framework the view that his is the *only* valid model of the universe, the sole truth about the nature of human knowledge and scientific enquiry.

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But there is another angle. We can recognize a thread of ideas that, whether or not it will serve for any kind of a synthesis, at least avoids the schizophrenia that seems to characterize much modern thinking about language. Let us make one final brief excursion into classical times. There was one mode of thought in the ancient world which perhaps more than any other provides the ideological foundations of modern linguistics, that of the Stoics. The point has been made that their founder, Zeno, was not a native speaker of Greek, and so had been through the chastening experience of learning Greek as a Second Language (Robins, 1967: 16).

The records of Stoic thought are scanty, preserved only in the writings of others; but enough remains to show that they achieved a new perspective on language. They did so by specifically focussing on language as an object of investigation, while simultaneously placing it in a broader intellectual context. Here is Robins' summary: 'The Stoics... regarded language as a natural human capability, to be accepted as it was, with all its characteristic irregularity. They took a broader view of what was good Greek than the analogists, and were interested in linguistic questions not principally as grammarians and textual critics; they were philosophers for whom language served as the expression of thought and feeling and for whom literature held deeper truths and insights veiled in myth and allegory'.

The Stoics interpreted language in its own terms. They took the written symbol, and analysed it into three aspects: it had a shape, a value and a name. The first letter of the alphabet, for example, has a written shape a, a phonetic value [a], and a name 'alpha'. They then used this analysis as a metaphor for the interpretation of linguistic form, and identified the three aspects of a linguistic sign: the sign itself, in its outward manifestation; the value, or meaning; and the thing meant $(\sigma\eta\mu\epsilon\hat{\iota}\sigma\nu,\sigma\eta\mu\alpha\nu\hat{\iota}\mu\epsilon\nu\sigma\nu,\pi\rho\hat{\alpha}\gamma\mu\alpha-1$ later the term $\sigma\eta\mu\epsilon\hat{\iota}\sigma\nu$ was taken over to mean the whole complex of form and meaning, 'sign' in the modern sense, and the form, now in the sense of 'wording', was designated by $\lambda\epsilon\kappa\tau\hat{\sigma}\nu$).

Two thousand years later, Saussure reintroduced the sign, making it the organizing concept for his interpretation of linguistic structure. This conception of the sign embodies our awareness of the conventional nature of language expressed by Saussure in the phrase 'l' arbitraire du signe'. It thus highlights what is in fact the one point of arbitrariness in the linguistic system, namely the interface between content and expression; and in this way brings out more sharply the non-arbitrariness of the rest.

Within each of these planes, relations are natural rather than conventional. Thus in the realization of semantic systems in grammar, each of the principal modes of meaning is typically expressed by a particular kind of grammatical structure; and the form taken by these structures relates in a non-arbitrary way to the nature of the meanings they express.

The idea of the sign opens the way to an interpretation of language in terms of semiology, or semiotics as it is now called. Semiotics has gained prominence in the past decade as a mode of thinking about all aspects of culture. A culture comprises many semiotic systems, ranging from kinship systems and modes of commodity exchange through dance and music, modes of adornment and display, architecture and art forms, imaginative literature, mythology and folklore; these are the symbolic resources with which people discover, create and exchange meanings. As Eco expressed it (1973), 'the hypothesis from which [semiotics] starts is that all cultural phenomena are really systems of signs ... [semiotics] should perhaps be considered as an interdisciplinary domain within which all cultural phenomena are analysed against the background of an "obsession" with communication'. We might rather say, an obsession with meaning; in Pyatygorsky's formulation, 'when I analyse anything from the point of view of what it means, this is a "semiotic situation". To study language is perhaps the clearest form of 'semiotic situation'.

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Through his understanding of the nature of the sign, Saussure was able to define language as an object, as the Stoics had done before him. But Saussure went further: he identified the nature of the object, both in relation to its manifestations in text, as langue to parole, and in relation to other semiotic systems (Culler, 1976). By what seems at first sight to be a paradox, it is only when language comes to be an object of study in its own right, as distinct from an instrument for the study of something else, that it can be placed in the context of other semiotic systems; and only when it is studied as an object in the context of other objects does its uniqueness begin to emerge. It then turns out to differ from other semiotic systems precisely in this respect, that it typically functions as the means whereby such other systems are realised (Culler, 1976: 104). And this no doubt is what accounts for the adult suspicion of language, seen in its extreme form in humanist ideology, in which language was something to be seen through, peeled off, to reveal the reality underneath.

In the life of a child, language evolves directly in the service of non-linguistic functions, as the means whereby he acts and reflects on the reality that lies about him; and this, as Malinowski pointed out many years ago, will tend to determine the image of language that the child internalises for himself. But once having come into existence, language takes on an independent reality and creates new meanings of its own. Such no doubt was the course of its evolution in the human species. In particular, it creates a new type of phenomenon, a symbolic entity that we call information, and this then becomes a commodity to be exchanged. It could be said that we now live in an age in which the exchange of information is replacing the exchange of goods-and-services as the primary mode of social behaviour. And this in turn is reshaping the way we think

about language, creating a new folk linguistics for the modern age.

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But in a discussion of ideas about language, it is important not to suggest that these ideas can be isolated from ideas about everything else. Our picture of language is part of our picture of the world. In particular, it is part of our picture of the world of meanings; and the value of the semiotic interpretation is that it shows us how the world of meanings is structured and what its constants are. We started with the child, so let us end with the child. Before he can talk about meaning, a child is engaging in acts of meaning; before he has a mother tongue, he is using his own child tongue to organise his view of the world (and of himself), and to interact with the people around him. By the age of eight or ten months a child already has a rich idea of what he will be able to achieve through learning language. As he learns language, he learns through language, and as he learns through language, he learns about language; on these foundations he constructs his view of the world. His chief preoccupation is learning how to mean — for what, as the Red Queen said, is the use of a child without any meaning?

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