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Written language, standard language, global language

MICHAEL A. K. HALLIDAY*

ABSTRACT: English, along with a small number of other languages in the modern period, has expanded away from local through national to international domains, changing significantly along the way. But the changes are not simply those that take place in the normal course of the history of a language; other changes come about as a language takes on new cultural, economic and political responsibilities. Critical moments occur when a language comes to be written as well as spoken, and then when it comes to function as a standard language for some sort of nation-state. In that socio-historical perspective English is now acquiring a new identity as the global language of the late capitalist world. Some of the consequences of this development are beginning to show; but we have yet to find out what the long-term effects are that arise when a language finds itself globalized.

This is a great occasion, and I am delighted to be here to celebrate the achievements of my old friend and distinguished colleague Braj Kachru. He has generously referred to me as his teacher; and it is true that I stepped into that part when Braj was researching for his PhD degree at the University of Edinburgh. But I was there as understudy for my own teacher Prof. J. R. Firth, who had just retired; and all I needed to do was to watch and admire while Braj kept up the impetus that Firth had set going. It was my first year as a teacher of linguistics anyway, so I know which of us had the steeper learning curve (not that we'd ever have heard of a learning curve in those days!). But then Robert Lees came over from Illinois to spend a short while in our department; and he lost no time in securing Braj for a position on his own campus. The rest is U of I history; it's a period of history that is now closing, but with everything on course, thanks to Braj, for an equally distinguished future.

I

I myself came from the inner circle of Englishes, the OVEs as they are called in South-East Asia; so I would like to start by reminding you that within this circle there are and always have been many different Englishes around (Kachru, 1990). I'm not talking about the relatively recent worldwide varieties – British, North American, South African, Oceanic; but about the old dialects within Britain itself, Northumbrian, Mercian, Wessex and Kentish at one period in the language's history. As a child I could still hear English rather like this:

> Nobbut t'fireless arth an t'geeable end
> Mark t'spot weear t' Carter family could mend
> An mek onny ilk o' cart,
> Wi' spooaks riven fra' yak, naffs of awm,
> Fellies of esh, grown i' different parts
> O' Swaadil. (Smith, n.d.)[1]

* 14/133 Sydney Road, Fairlight, NSW 2094, Australia

And although my own speech was nowhere as exotic as that, I was forced at age 7 to make a fairly substantial dialectal shift. And when I moved to Scotland, though I was less than 200 miles from where I grew up, I had problems in understanding the rural talk. Braj may remember the window cleaner in George Square, who came from the Border country; I tried hard to converse with him, but it was a strangely skewed kind of conversation that took place!

What I illustrated just now was North Yorkshire dialect, descended from the speech of the old English kingdom of Northumbria. It wasn't my native speech; but I would have heard it in my great-uncle's dairy, where he made Wensleydale cheese. I grew up in West Yorkshire, where the dialect was Mercian not Northumbrian; but in any case what I spoke was not a dialect of English but an accent – because I grew up in a city, and the city folk had given up the dialect in favour of Standard English. But it was still a local, or at any rate a regional, variety: Standard English with the phonetics, and largely also the phonology, derived from the original dialect. It was far from homogeneous, of course: different people, and the same person on different occasions, would vary between more dialectal and more standard forms.

In other words, the language situation was typical of a European nation-state. Some centuries earlier, in the process – indeed, as part of the process – of England becoming a nation, one English dialect, that of London (which was South-East Mercian, with a dash of Kentish in it), emerged as the bearer of nationhood, to carry the flag, or standard, of the emerging nation. This was now Standard English, although that term was not used until the late eighteenth century; its status took it out of the category of a dialect, and "the dialects" were now defined by opposition to the standard form of the language.

As we all know, there is no intrinsic value in the various expression features that characterize the standard variety of a language. If the diphthongal vowels of Standard British English are preferred over the monophthongs of the northern tongues, their ascribed value is a result of the standardizing process; in no way can it be a cause of it, and elsewhere – for example in the neighbouring nation-state of France – the preference might go exactly the other way. So as linguists we have always insisted that a standard language was just another dialect, but one that happened to be wearing a fancy uniform. But to say that is to leave out the historical basis of language standardization, which has to be understood in terms of the functions that a standard language takes on.

If we take English, and other languages of western Europe, as prototype (but noting that this is not the only possible route towards supra-national status), the standard language evolves in the context of new demands especially in the areas of commerce, administration and learning. But these are not simply institutional demands – that is, having to do with the relation between the language and its speakers, or users.[2] They are also systemic – having to do with the nature of the language itself, its total potential for meaning. Of course all these forms of semiotic activity had been going on for a very long time, in England as in politicized societies everywhere; but in medieval England they were generally conducted in three different languages: commerce in English, administration in French and learned discourse in Latin; so part of the job of the standard language was to take over and unify all three domains, as well as providing a uniform variety from within English itself. There is an interesting foreshadowing here of what happened much later on, in the colonial period. But over and above all this, there were new meanings to be created; new ways of meaning, in fact, commensurate with the new material conditions (which had in turn arisen from new technology, back to the horse-drawn plough and the movable-rudder sailing boat) and the new modes of production and social and political structures that evolved with them.

When we think of the new resources that develop with the standard language in its construction of the modern nation-state, we usually think first of new vocabulary: exactly in the way that language planners, and planning agencies, conceived of their task of developing national languages in post-colonial nations – their job was to invent new words. Language planners soon came to realize, however, that they needed to establish the principles on which new words should be brought into being, because words do not function as individual elements but always in some systematic paradigmatic relationship one to another. Nobody planned the coining of new vocabulary in the early stages of Standard English; but as it happened there was a principle for making new words already at hand, namely that of switching into another language. This as I mentioned was already a feature of the upper-class reaches of English life, as a result of England having been colonized by the Norman French in the eleventh century; an interesting relic of this multilingual mode of meaning is to be found in common law, where there are a number of triplets, expressions consisting of three words, one native English (Anglo-Saxon), one Norman French and one Latin, like *stay, cease and desist* or *bequeath, grant and devise*. Here the words were no doubt intended as synonyms, although the fact that those who framed the laws adopted this practice suggests perhaps they felt each of the words meant something a little different, so that the legal interpretation would be that which was common to all three. But the principle that words of high value, words that carried weight, words of greater force and substance, could be created by borrowing from another language, one that was current among high-standing members of the community, was already present in the culture; and so the registers of the new Standard English, those of administration and centralized authority on the one hand, and those of technology and science on the other, went to Latin as the source of new terminology, building on, strengthening and expanding a repository that was already there.

II

In my title today I used the triad "written language, standard language, global language", because I wanted to consider this relatively new phenomenon of "global English" in its historical context. I don't mean by this its institutional history, the sociopolitical events which contrived to bring it about; these have been well documented and interpreted by others who are far more competent to do so than I am. Those processes are external to language; whereas what I am looking into are the systemic processes that are going on in the language itself as it moves into these new sociopolitical contexts. So in that sense they are internal processes; but here there is another distinction to be made, because I don't mean the internal processes of sound change and the like – the phonological and morpho-syntactic changes that are the province of historical linguistics. These are, prototypically at least, independent of changes in the sociopolitical environment, being located on the plane of expression rather than on the content plane. My concern is with a more functional dimension of a language's history, the sort of history that Kachru opened up for us when he talked of "the Indianization of English" (Kachru, 1983). Historical semantics, and especially semantic field theory, was already pointing the way in this direction, with its interest in changes in the meaning of particular words, and sets of words, in response to changing cultural contexts. I want rather to generalize this notion, focussing on changes in the total meaning potential of a language; seeing this not, however, just as a response to sociopolitical and technological change but rather as an active agent in these historical processes – taking the view that human history is the product of these two fundamental realms of our existence, the material and the semiotic, interacting and interpenetrating at every level.

The process of becoming a standard language or national language is something that we can examine historically, looking back on actual cases; and it offers certain analogies with the process of becoming internationalized, or globalized. A standard language is a tongue which has moved beyond its region, to become "national"; it is taken over, as second tongue, by speakers of other dialects, who however retain some features of their regional forms of expression. A global language is a tongue which has moved beyond its nation, to become "international"; it is taken over, as second tongue, by speakers of other languages, who retain some features of their national forms of expression. If its range covers the whole world we may choose to call it "global". A standard language moves into new registers: new spheres of activity, opening up and expanding its meaning potential along the way. A global language does the same – or does it? This is an important question; and if we look at a "standardized" language from this point of view, we can ask in what respects a "globalized" language is, or is not, the same.

If we start with the development of new vocabulary as the most obvious outward sign of the expansion of the meaning potential, we can characterize what seem to me to be the critical factors in this process by contrasting them with the simple process of inventing new words. We may identify four of these:

1. not just new words, but new word-making principles;
2. not just new words, but new word clusters (lexical sets);
3. not just new words, but new meanings;
4. not just new words, but new registers (functional varieties).

Let me say a little about each of these in turn.

In the first case, the "product" is not a list of words, which is closed, but a set of word-forming principles whose output is open-ended. In English this meant borrowing root forms of words from Latin (and later directly from Greek); and also borrowing the morphological resources for transcategorizing and compounding them.

In the second case, the "product" is not words as isolates but sets of words that are paradigmatically related. There are various possible forms of such a relationship – various dimensions of paradigmatic order; the most fundamental and far-reaching is taxonomic order, whereby one member is either a kind of or a part of another, and this was an important feature of the new standardized English word stock, especially for technology and science.

But, in the third case, the "product" is not the forms as such but the meanings that these forms express: semiotic features (elements and structures) which can be construed by all features of the wording, grammatical as well as lexical. It is this that enables the construction of new forms of knowledge – and also of new forms of authority: those who master the new meanings thereby gain in power.

And so, in the fourth case, the "product" takes the form of modes of discourse, with their own ways of reasoning and arguing, of presenting and marshalling lines of information and control. Standard English took over the registers of administration and learning, and developed discourses which transformed these activities so that they became part of the new "modern" order.

All these processes can be seen as ways of opening up, of expanding the semiotic potential that inheres in every language: opening up the creation of new terms; opening up the dimensions along which these terms are organized, opening up the meaning-making resources of the lexicogrammar; opening up the modes of creating and transmitting knowledge, maintaining and strengthening authority. No doubt changes like these are going on in all languages all the time; but at certain historical moments they get speeded up, even to the extent of fundamentally transforming the semiotic power of the language. Speeded up, of course, is a relative term; in English they were able to take place, without any conscious planning, in five to ten generations. If you need to speed them up still further, you create a language-planning agency to intervene in these processes by design.

Taken together, then, these are strategies for making meaning, for expanding the effective meaning potential of a language. Let us call them semogenic strategies. One way of thinking about the evolution of language is that it is a process of the evolution of semogenic strategies. We cannot generally observe this taking place – except in its ontogenic guise: we can watch the semiotic development of children. But the evolution of a standard language does offer the chance of seeing some way into this aspect of linguistic history.

III

One way of thinking about the effects of these strategies, if we ask in what ways the meaning potential is in fact being opened up, is that they bring new forms of systemic order, adding further dimensions to the language's semantic space. Let me try and clarify what I mean – again, I emphasize that I am talking about what happened in English. Every language will develop relevant semiotic strategies when the moment arises; but how each language does this will depend on a number of circumstances – essentially, on the one hand the ecosocial environment, the material and semiotic processes that are going on around, and on the other hand the character (Sapir's that "certain cut") of the language itself, its ways of meaning and of innovating. What happens will be a product of the impact of these two forces as they appear at that historical moment.

To come back to the most obvious feature, the vast quantity of new words that appeared in the course of the evolution of Standard English. What matters, as I suggested, is not the total number of words, but the resources available for making them, so that the process of word formation becomes open-ended – it has of course been going on ever since. In English, after the Norman invasion (which brought England back into the stream of post-Roman mainland European culture), the source language for most new words was at first Norman French; and then, by an easy transition as the standardization process gained momentum, Latin. So a bug, for example, becomes an insect. Why borrow a word for something already named? – because it is not, in fact, just a synonym. The popular view, among English-speaking children, is that which is embodied in the expression "long words", which means words which are difficult but (therefore) more important. (This seems plausible on iconic grounds: they are longer, so carry more weight. On the other hand in Japanese, where the source of borrowing was Chinese, learned terms tend to be shorter than everyday words.) But the point is that an insect is a more abstract bug. It names a class: a class which can be defined, such that the question "is this (thing, or kind of thing) an insect?" can be definitively answered – whereas you can't really ask about something "is that, or is it not, a bug?" So an insect enters into a systematic taxonomy of living creatures, which can be elaborated by means of derivatives and compounds as such semantic structures become available: we have insectile, insectarium, insectivore, insecticide and so on. Likewise with numerous other Latin terms for familiar objects and phenomena: ignis for fire, giving ignite, ignition, igneous; aqua for water (aquatic, aqueous, aquarium, aquifer); avis for bird (avian, aviary, aviculture – and cf. aviation, aviator) and so on and so on. In all such cases, the Latin word construes some feature of our experience at a more systematic, and in fact systemic, level.

But then as Standard English was evolving, another language came into vogue, namely Greek. Classical Greek learning had been preserved and built on by the Arabs; but for a long time it had been known in western Europe only through Latin translations of a few of its leading scholars such as Aristotle. Greek studies were taken up just at the time when scientific knowledge was expanding and scientific discourse was becoming a significant component in the functional domains of Standard English. So Greek became another source of learned borrowing, made easier by the fact that many of the Latin terms in use had themselves been borrowed (calqued) from Greek in earlier times; Greek words came readily into English alongside those from Latin. Insects in Greek were entoma (itself the source of Latin insecta); but in English, again, they were not synonymous. The Greek term typically takes the abstraction up to an even higher level; it signifies its status as part of a theory, and therefore as an object of theoretical study: hence terms like entomic, entomophily and, as a branch of knowledge, entomology. Likewise hydro- for water (hydrogen, hydrolysis, hydrology), ornitho- for bird (ornithology) and so on. Thus the infusion of Greek extended this dimension of semantic space still further, beyond systematic taxonomy into scientific theory. And while over the centuries the distinction has become blurred, and only those interested in language now recognize which elements are from Latin and which from Greek, this vector of the meaning potential, once having been opened up in this way, is still present in the language; moreover it lies behind many of our cultural beliefs and cultural practices (such as education).

Of course Standard English was never the preserve of scholars; learned discourse was only one of its manifestations, though one that was essential to the development of industrial technology. But the status and prestige that accrues to scholarly achievement becomes attached to scholarly language; and since, prior to the emergence of Standard English, Latin itself had been the language of prestige it was no great shift when that status was transferred to a kind of English that sounded like, and was obviously indebted to, Latin. Even the hierarchic distinction between Latin and Greek was carried over into this measure of status: an ophthalmologist is valued as superior to an optician, podiatry is more expensive than pedicure, ethics is a theorized form of morals. Thus latinate (or graecolatinate) discourse in English carries its own loading of prestige; and when this is combined with the authority of Standard English as the discourse of centralized administration what results, not surprisingly, is a language of power: not just in the sense that it possesses enormous power, through its expanded meaning potential, but in another (related) sense, that it gives power to those who control it, and hence serves as a means whereby power structures are put into and maintained in place. We are so surrounded today by these dominant forms of discourse that we scarcely notice them any more; it seems quite natural to be told that this certificate remains the property of the corporation and must be presented on request (. . . still belongs to the body and must be shown when asked for). The internal memoranda of any bureaucratic institution often show up how the power is distributed; while as clients, we know our place when we are told that failure to reconfirm may result in cancellation of your reservations (and even if our reservations have not been cancelled, refusal to submit to screening procedures will result in prohibition on entry to the area and prohibition on boarding the aircraft). This has now become the norm, and Anglo-Saxon versions are marked as having very low status: they seem playful, or else merely childish.[3]

English is not alone in turning to a respected foreign language for its highly valued registers of discourse; apart from other European languages, we could cite the examples of Japanese (borrowing from Chinese), Vietnamese (also from Chinese), Thai (from Sanskrit), Urdu (from Persian, which in turn borrowed from Arabic), and the languages of southern India (again from Sanskrit). In these cases, the borrowing was associated not with standardization but with an earlier historical moment, the introduction of writing – or rather, perhaps, the development of written discourse; comparable therefore to the borrowing from Greek into classical Latin rather than that from Latin into English. But they illustrate the same principle: that when a language extends its field of operation, as its speakers, say, adopt a new religion, engage in new types of commerce, or explore new dimensions of knowledge, such changes in the ecosocial functioning of the language will always entail some expansion of its meaning potential. The writing systems that were widely borrowed (the Chinese, the Sanskrit, the Arabic) had themselves, like the Greek alphabet in Europe, been associated with fairly massive semiotic expansions when they first evolved: in religion, philosophy, technology, and also in literature where written genres displaced the earlier highly-valued oral forms.

Since human societies are organized hierarchically, the innovations in meaning potential that are part of these historical processes begin by being the prerogative of a favoured few. They will spread, over time, because while the few may struggle to retain their privileged status, the layers of a social hierarchy are typically permeable: castes and classes are not insulated one from another. But there will always be those who are left behind; they become the "marked" category, labelled by some negative term like illiterate or uneducated; and whether or not they aspire to move in to the more highly favoured majority – they may or they may not – they are very well aware of their own lack of semiotic power. It was the illiterate peasants, in China in the 1950s, who protested most vigorously against the plan to abandon the charactery in favour of an alphabetic script. They knew that writing was the key to meanings they did not control; and writing meant characters – letters looked rather like a device for keeping them out.

What I am wanting to bring out is that, when a language becomes a written language, and when it becomes a standard language, the change is not merely institutional; it is also systemic. The semogenic power of the language is significantly increased. We might then wonder, if a language becomes a global language, whether the same thing will happen.

IV

There are various historical conditions under which some dialectal variety of a language may emerge as dominant and become "standardized". In England, and in other parts of Europe, this happened as a concomitant of the "birth" of the nation-state. In China, Mandarin evolved as the language of a centralized feudal authority; and its scope was likewise extended, not just in the categories of its users but in the meaning potential of its political, economic and cultural contexts of use.

So if a language is not just nationalized but internationalized (and let me treat "global" for the moment as the limiting case of being international), what happens then? Is this just an institutional change, with people taking it over as a supra-national second language and living some portion of their lives in it? Or does it create new functions for the language, which then engender new meanings? Is its overall meaning potential increased? and if it is, then in what ways, and who for?

At one level, the answer is obviously yes. One of the first examples of Indian English that Braj Kachru told me about was *flower bed*. This expression, familiar to the inner circle as a portion of a garden where flowers are grown (as distinct from the lawns), reappeared in an Indian English context in the sense which they would represent as *marriage bed*. Here "an old expression has taken on a new meaning" – at least for someone who knows Hindi, or who may not know Hindi but can derive the information from the context.

Whenever one language is used to describe settings that are primarily construed in another language, it is bound to take on new meanings, whether it does this by reconstruing old words or by borrowing new ones – as English did, for example, when it came to Australia and talked about bluebottles (jellyfish, not insects) and billabongs. Likewise in contexts of translation: when the Chinese translators of Mao Zedong's works wanted an English equivalent for zougou, they sometimes translated it as *lackey* and sometimes calqued it as *running dogs*. Every language enlarges its meaning range when it hosts translations of foreign texts or is used to talk about cultural contexts that are different, and distant, from its own.[4]

But who are the meanings for? Access to them is limited: you have to know the language – English, in the case of flower beds and running dogs. But access to meanings is always limited, by inequalities in the social structure. Education is designed to increase people's access, and it does so by steering them through these evolutionary changes in turn: first we teach children written language, then we teach them standard language (or else both at the same time, depending on the circumstances); and then, perhaps, we may teach them world language. This is the principle behind the three language policy that has been adopted in a number of countries (and sometimes even implemented, up to a point). It is a reasonable policy, and provided the teachers are trained and the necessary materials are available, children have no great problems in adapting to it. The reason it seldom succeeds is because the resources are not sufficient – or if they are, those who control them are not willing to devote them to education. But a world language could be built into the educational scheme – if it was needed.

But, as language educators know, even with all the necessary resources deployed, the students don't always learn; because they don't perceive a need for what they are learning. This can happen at all stages: some don't see even why they should read and write. The most problematic, in this respect, is a world language. What makes people feel that they need another language? Critically, I think, in all these cases it is what we might call functional complementarity: things can be done with this language – things that they want to do – that cannot be done, or done successfully, without it. That, as we know, is the circumstance in which a global language catches on.

It was also the circumstance in which writing first caught on, and in which standard languages evolve. As our interaction with each other, and with our material environment, comes to be more and more complex, we develop a more and more complex semiotic. One aspect of this process is the technology: first the materials to write on, and tools to write with; then paper and printing; and now electronic keyboards and monitor screens. But equally important were the new ways of meaning that the functional contexts demanded. Writing took the forms of calendar and divination, proclamations, lists of things and of doings, bills of lading and so on. Standard languages brought new semiotic strategies for administration and learning. And when we look into the grammar that provided the motive power for these strategies, in the history of English, one feature stands out as critical: namely grammatical metaphor. Grammatical metaphor opens up a new dimension of semantic space (Halliday, 1998).

V

Grammatical metaphor is what turns *move* into *motion*, *resist* into *resistance*, *fail* into *failure*, *long* into *length*, *can* into *possible*, *so* ('therefore') into *cause* (verb or noun). It is metaphor because it involves cross-coupling between semantics and lexicogrammar: an expression is being used to mean something that has usually been meant by something else. (Better: a meaning that has usually been realized in one way is now being realized in another.) It is grammatical because what is being cross-coupled is not a word (that is, not a lexical item, or "lexeme") but a class: a noun is doing the job of a verb or adjective, an adjective that of a modal verb, a verb is doing the job that has been done by a conjunction. And there are others.

It is this process, or rather this set of processes, that leads to wordings such as:

> Even though the fracture of glass can be a dramatic event, many failures are preceded by the slow extension of existing cracks.

It also gives us the kind of warnings that I quoted earlier – but also may be used to offer reassurances:

> Excellent safe face drying can be achieved by the same action as water was applied by regular wiping with warm hands during drying cycle.

and even in the publicity for a pop star:

> He also credits his former big size with much of his career success.

But it is in scientific writing that grammatical metaphor is most consistently exploited, because there it is functional at a critical level: you cannot develop a scientific theory without it. It reaches its most concentrated state in scientific abstracts, because it enables the meanings to be densely packed:

> Endocrine testings confirmed clinical anterior hypopituitarism. Post-traumatic hypopituitarism may follow injury to the hypothalamus, the pituitary stalk or the pituitary itself. The normal thyroid stimulating hormone response to thyrotropin releasing hormone . . . is in favour of a hypothalamic lesion. (Lim *et al.*, 1990)

But such a density would be dysfunctional in other registers of science; these require a less viscous flow of meaning, which is brought about by the oscillation between more metaphoric and more congruent states in the wording.

Grammatical metaphor plays two crucial roles in scientific discourse. One is to carry forward the argument by packaging what has gone before so that it serves as logical foundation for what follows: for example as cause in a chain of cause and effect. The other is to raise the argument to a theoretical level by construing not just individual technical terms but terminologies, sets of terms related in taxonomic order.[5] Both of these principles are illustrated in a sequence such as the following:

> . . . from 1950 to 1980, severe contamination from acid rain resulted in a drop in pH – from about 5.5 to 4.5 – which represented a tenfold increase in the acidity of the lake water. This acidification was caused mainly by the burning of coal containing high levels of sulphur . . . (Stigliani and Salamons, 1993: xii)

Consider the word *acidification*. On the one hand it "packages" the preceding story about acid rain lowering the pH value (hydrogen ion concentration) in the water of the lake, which means making the water more acid; on the other hand it forms part of a theoretical construct which includes terms such as *contamination* and *pH-value*, as well as other items in the surrounding discourse like *atmospheric sulphuric acid* and *buffering capacity of the soil*. These are linked by relational terms *resulted in*, *represented*, *was caused by*. Somebody burned coal, so the water became acid: two processes, linked by a conjunctive relation. But in the text, the processes have turned into things – that is the canonical meaning of a noun; and the conjunctive relation between them has become a verb – that is, has turned into a process.

What is happening here is that the grammar is creating virtual phenomena, phenomena which exist purely on the semiotic plane. This is achieved by a process of semantic junction, whereby two category meanings combine. Acidic is a quality of water, or of some other liquid; when this is nominalized, as *acidity* ('being acidic') or as *acidification* ('becoming acidic'), since the category meaning of noun is a thing, or entity, the effect is of a semantic junction between quality and thing. The quality construed by the adjective *acidic* has been transformed, or metaphorized, into a thing, a virtual entity which can be observed, measured and reasoned about. Likewise "so, therefore" is a conjunctive relation between processes; when it is construed by a verb, as *causes* or *is caused by*, since the category meaning of verb is a process, there is again a semantic junction: the (causal) relation construed congruently by a conjunction, like *so* or *therefore*, has been metaphorized into a process – a virtual process, which can be located in time, negated and so on. It is the creation of these virtual phenomena, by the cross-coupling of grammatical categories with semantic features, that makes scientific discourse, and in fact scientific theory, possible.

Scientists like grammatical metaphor; their lives, or at least their livelihoods, depend on it. Poets, and other creative writers, prefer metaphor in its traditional guise – lexical metaphor. Here it is one word for another, not one class for another. But the same kind of semantic junction takes place, as rhetoricians and stylists have always recognized. So when Edwin Thumboo writes:

> . . . the Lord, whose other hand dispenses the dew
> Of sleep on Saul's army . . .
> (cited from Webster, 2001)

we recognize that dew and sleep are fused into a new thing, a virtual dew – one that is also medicinal, since it can be dispensed. This metaphoric potential is an inherent feature of human (post-infancy) language, because a language is a stratified semiotic, in which meaning and wording can be decoupled, and recoupled in new alignments. What the scientific imagination did was to combine these two fundamental resources of language:

transcategorizing (deriving one word class from another, like *maker* from *make*, *hairy* from *hair*) and metaphorizing (cross-coupling of semantics and grammar). This process began in classical times, with the written languages of the ancient world (and the iron age technologies, which transformed material substances in somewhat analogous ways); but it was brought to a higher level in the standard languages of the modern period. As far as I know, every language of science has followed the same route, reconstruing the human experience by exploiting the potential for metaphor in its grammar.

VI

Translation is also, as often pointed out, a process of metaphor: not a prototype, since it is a second order semiotic activity, but perhaps the limiting case. To return for a moment to the flower bed: when this term is used in Indian English, does it bring about a comparable semantic junction? In other words, is *flower bed* just a new expression for an old meaning, or is it creating a new meaning, a marriage bed which is also a virtual bed of flowers – aided (though somewhat subverted) by the British (or inner circle?) English *bed of roses*? (Subverted because *bed of roses* is usually used in the context of a negative, such as *a marriage bed is no bed of roses*.)

By itself, one instance is of little significance. But if a whole culture comes to be represented in a language other than its own (that is, other than that with which it co-evolved), has this now become a different language? Not just different from what it was (so much is clear), but different from either of its progenitors? Is Nigerian English just a rewording of the semantic system of Yoruba and other Nigerian languages, or is it a distinct semiotic, a metaphoric junction of two different semiotic styles? If the latter, then it embodies a new, and different, construal of the human condition.[6]

It is important to ask this question, I think, in the light of our previous history – our semohistory, or history of meaning. The transitions that I have been considering – into written language, into standard language – were, in effect, reconstruals (that is, semiotic reconstructions) of human experience, concomitant with the increasing complexity of our interaction with the eco-social environment. We may think of these as new functional demands on language brought about by advances in technology – which is how I myself used to think about them. But I think that was wrong. Rather, the semiotic and the material are two facets of a single historical process, neither of them driving the other, but neither of them able to take place independently. Writing came with settlement, and a certain level of political organization and material technology. What I have loosely called standardization came with a more centralized structure of authority and a higher level of technological achievement – in Europe, with the machine age, the technology of power. (In each case, vernaculars persist but do not share in the reconstruction.) So is it to be predicted that the technology of the electronic age, the technology of information, will be accompanied by a comparable reconstrual of experience?

We can see that discourses are changing. Electronic text tends to lessen the distance between the spoken and the written mode; it develops features and patterns of its own, part written part spoken and part perhaps unlike either. Text can be a mix of aural and visual channels, together with components from other, non-verbal modalities. But what we don't know yet – or at least what I don't know – is how far these factors affect the meanings that are being construed. One feature we can begin to observe seems to be a move back (but perhaps really a move forward) to more congruent ways of meaning, at least in the discourses of technology and science (nicely symbolized by the reinvention of biology as life science, geology as earth science); note also the Plain English movement in government and the law. The standard language may be revisiting its origins in everyday speech.

At the same time, the "globe" that provides the context for global English is for the moment at least a world in which the voices of international capitalism, with their triumphalist rhetoric about the failure of people's first attempt to design something more humane, have learnt to exploit all the semogenic strategies that give language its enormous power. For corporations it comes as a bonus, inherited from colonial days, that the language of convenience in so many international (and even intranational) contexts is none other than English. But it is naive to imagine that if the United Nations had decreed, back in 1950, that some other language – say Esperanto, or even Malay or Korean – was to be adopted as a world language, the global situation would have been any different: whatever language was adopted would soon have been primed to function as a medium of corporate power. In that case English would have continued to serve – as French does today – as a highly-valued international language in certain cultural regions and with certain clearly defined spheres of activity.

The way it has turned out, English has become a world language in both senses of the term, international and global: international, as a medium of literary and other forms of cultural life in (mainly) countries of the former British Empire; global, as the co-genitor of the new technological age, the age of information. So those who are able to exploit it, whether to sell goods-&-services or to sell ideas, wield a very considerable power. Many people would like to resist this dominance of English. The strategic response would seem to be: do away with English. Don't teach it, or do anything to perpetuate its standing in the community. But most serious thinkers believe that that won't now work: English is too deeply entrenched, and if people are deprived of the chance of learning it they are the ones who suffer. That was not the case 50 years ago, when English was just one international language among many, and it may well not be the case 50 years from now; but for the moment that is how it is. It seems that if you want to resist the exploitative power of English, you have to use English to do it.[7]

It is important, I think, to distinguish these two aspects, the international and the global, even though they obviously overlap. English has been expanding along both trajectories: globally, as English; internationally, as Englishes. Both of these expansions involve what I have called semogenic strategies: ways of creating new meanings that are open-ended, like the various forms of metaphor, lexical and grammatical. But they differ. International English has expanded by becoming world Englishes, evolving so as to adapt to the meanings of other cultures. Global English has expanded – has become "global" – by taking over, or being taken over by, the new information technology, which means everything from email and the internet to mass media advertising, news reporting and all the other forms of political and commercial propaganda. And the two seem not to have really mixed. Infotechnology seems still to be dominated by the English of the inner circle; under pressure, of course, but not seriously challenged, perhaps because the pressures have no coherent pattern or direction. If the Englishes of the outer circle had more impact on the global scene, those who monopolize the media would no longer automatically also monopolize the meanings. If African and Asian varieties of English are not simply vehicles for their regional cultures but also their communities' means of access to a culture that is already in effect global, those who speak and write these varieties are not constrained to be only consumers of the meanings of others; they can be creators of meanings, contributors to a global English which is also at the same time international. Meanings get reshaped, not by decree but through ongoing interaction in the semiotic contexts of daily life; and these have now become global contexts, even if those who participate in them are still only a fraction of the total population of the globe. Rather than trying to fight off global English, which at present seems to be rather a quixotic venture, those who seek to resist its baleful impact might do better to concentrate on transforming it, reshaping its meanings, and its meaning potential, in the way that the communities in the outer circle have already shown it can be done.

NOTES

1. nobbut 'only', ilk 'kind', yak 'oak', naffs 'hubs', awm 'elm', fellies 'felloes, rims', esh 'ash', Swaadil 'Swaledale'.
2. I follow here the very useful concept of "institutional linguistics" as defined many years ago by Trevor Hill (1958).
3. The technological and the bureaucratic modes of discourse may of course be combined; cf. Lemke, 1990; Thibault, 1991.
4. For the concept of semantic distance see Hasan, 1984.
5. These two motifs are brought out by detailed analysis of scientific texts; cf. Halliday and Martin, 1993.
6. For views on the operation of English in an "Outer Circle" environment (in this case Singapore), see Foley *et al.*, 1998.
7. See for example Kandiah, 2001; Pennycook, 2001.

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