

Let's Erect a New Tower of Babel!

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The *Tower of Babel* has come to mean exactly the opposite of what it was. Babel was probably Babylon, a great metropolis where *everyone spoke the same language*. And at Babylon, man built the huge and towering ziggurats so beautifully pictured by Peter Breughel and others. To the writer of Genesis the technology of that great metropolis *and its single language* must have seemed like marvels indeed. The writer could imagine its destruction only as the result of divine wrath. How else could mankind have declined from such a lofty state?

The abandonment of the Tower of Babel and of the common language of its builders is attributed in Genesis to the wrath of an angry God. At Babel God observed that "the whole earth was of one language and one speech . . . and now nothing will be restrained from them which they have imagined to do . . . Confound their language that they may not understand one another's speech."

Thus, the Tower of Babel was a great technological achievement whose construction was unhampered by linguistic difficulties. There was no translation problem for those early scientists and engineers.

God's curse has left us essentially incommunicado.

I would like to suggest that mankind has suffered enough since then. We should now complete a modern Tower of Babel through the universal adoption of English as the mandatory language of science. Considering how far we have progressed in molecular biology, this suggestion may seem superfluous. But surely the potential danger to all mankind in this new technology makes English as necessary as the metric system.

Communication by speech was a 'divine' gift to mankind alone. The ancients knew well the irony implicit in divine gifts. It is the theme of much classic Greek drama, where the audience knows what the hero and his fellows in the play do not know--that the divine gift, whatever it happens to be in the particular play, brings with it the seed and the moment of destruction.

We are accustomed to say that science knows no boundaries and no lesser allegiances than knowledge and the search for truth. But of course we should know, from reading sociologists from Marx to Merton, that the notion of science un-

bounded is mostly utopian foolishness. Perhaps science ideally *should* know no boundaries, no restrictions, but in fact it knows many. National aspiration, cultural milieu, social philosophy, economic power, political wrangling, and language are but a few.

Language may be a divine gift, but the diversity of language must surely be the tragic irony implicit in this particular divine gift. Is it overly simplistic or even stupid to suggest--like the author of Genesis--that we would be better off as human beings, and as scientists, if we did "understand one another's speech," if we could more nearly approach one another's thought?

Linguistic diversity is the tip of a great mental iceberg. We have been blessed and cursed not only to speak differently but to think differently because of it. Is there any doubt that thought not only shapes speech but, as Whorf suggested, that language shapes thought? What is easily expressed in one language may be beyond conceptualization in another. Whether this applies to molecular biology or any other branch of modern science is easily enough appreciated if one were to imagine an attempt to translate *The Double Helix* into Eskimo.

I don't believe that English is the language most suited to science because it is the *best* language. It is simply the language that scientists as a whole now *best understand*. We must go on from that fact.

English is by no means a simple

language. It does not have that to recommend it. Even though it can claim the grandeur of Shakespeare and the glory of the King James Bible, it also carries the stigma of having been the oral and administrative instrument of unparalleled colonial exploitation. It may not be as lucid as French, as vigorous as German, as musical as Italian, as subtle as Russian, or as tender as Spanish. I am told it is not as deceptively concrete as Chinese, nor as heart-easing as Gaelic, but *it is the language now best understood by scientists*. The overwhelming superiority and recommendation of its being *best understood* should not be underestimated. The government of India seems to agree, whatever the compromises to which the national consciousness has forced it to pay lip service.

The chauvinists of particular languages would perhaps prefer French because it was the language of Racine. Others might prefer the German of Schnitzler, or the Italian of Dante, or the Russian of Pushkin, or the Spanish of Garcia Lorca. But I do not recommend English as the *lingua franca* of science because it was the language of Shakespeare. Most of the world cannot read even in their own languages works of men that have enriched their cultures.

The urge to be once again "of one language and one speech," in and outside of science, should not be dismissed as anti-cultural. It is a powerful urge that expresses itself

in many forms, such as our delight in a "silent" movie by Charlie Chaplin, or the universal embracement of the modern television broadcast. The urge has also been powerful enough to spawn numerous "artificial" languages like Volapük, Esperanto, Interlingua, Novial, etc. In retrospect, it may seem remarkable that people of so many nations grasped so eagerly at the 'linguistic' monstrosities frankensteined by idealist inventors. Looking today, for example, at a page of Volapük, a once popular and now 'dead' artificial language, one finds it hard to believe that anyone could ever have taken such a *World-Speak* (the name *Volapük* meant that) seriously. But in the 19th century a great many people did. On the other hand, artificial languages

have not been solely the product of amateur utopians or entrepreneurial egotists, as was often the case. Distinguished linguistic scientists like Otto Jespersen tried their hand at it as well. Some rate Jespersen's *Novial* the best of the lot.

The time may come when English will be universally understood. I join with Professor Steiner¹ in expressing the hope that the universality of English will be accompanied by an *increasing* bilingualism or trilingualism. A world of bilingual nations will be better off for its ability to share the benefits of different linguistic cultures, as well as those of technology.

1. Steiner, G. What is an educated man now? (*London*) *Times Higher Education Supplement* 11 October 1974, p. 13.