

Towards the Problems of the Inquiry

At this juncture Zygmunt Stoberski poses a dilemma, with a piece of advice, for he contends:

To protect their respective languages against foreign words, philologists (sic) and writers point to their desire to defend native tongues and their purity as a form of cultural heritage. The argument holds true when it comes to a conversational or literary language, but is inadmissible (sic) with regard to specialist terminologies for two reasons: first, specialist neologisms do not constitute one's cultural heritage as they are being created now in various languages. And second the economic backwardness of many African countries has to be taken into account. That is, one would have to decide whether it is more patriotic to quickly make knowledge of science and technology available for ones (sic) own nation in order to protect it against catastrophic dangers, or to stick to the illusory conviction that patriotic feelings can be satisfied with translating into his (sic) native language of hundreds of thousands or even millions of foreign terms

Dagne & Gameda (1987: 87)

Stoberski's reasoning is invalid for two reasons. First, specialist neologisms do betray a bias towards the cultural heritage of the terminological coiner; biological nomenclature affords a good example: the zoologist classifies living organisms in Kingdoms, Phyla, Classes, Orders, Families, Genera and Species. Clearly, a social conceptual system is transposed to label hierarchical groups. It is conceivable to take a totally different conceptual system as a basis of labelling the same groups; for example, numerical magnitude with 106, 105,..... 102, 101, 100, instead of Kingdoms, Phylum ... Family, Genus and Species. Second, Stoberski cynically assumes that L2 cannot be made internally self-reliant in order to articulate the millions of concepts already expressible and expressed in L1. In the contemporary world, Stoberski assigns a special L1 role to Indo-European Languages, for he surmises that

a term may be considered to be international if it is used in any of the official UN languages and in 10 other smaller languages, or two world languages plus three or four smaller languages.

Dagne & Gameda (1987: 89)

Among English, French, Russian and Chinese, Chinese is in the minority on the Security Council. English, French, Spanish, and Portuguese may well be the major world languages. 'Smaller languages' would most probably include German, Arabic, Japanese, Italian, Polish, Dutch, Turkish, Modern Greek, Hindi, Korean and Bahasa Indonesia. Clearly, on either alternative, the Indo-European (IE) languages English, French, Russian, Spanish, Portuguese, Hungarian German, Italian, Polish, Dutch, Modern Greek

and Hindi would tip the balance with regard to terminological internationality. If it should be true that

...it is virtually impossible to form millions of new terms from native morphemes whose resources are not that rich, but also (that) this tendency erects barriers which hamper the swift flow of scientific and technical information.

Dagne & Gameda (1987: 88)

then terminological modernisers who speak non-IE languages could be overawed into terminological submission to IE speakers. That this state-of-affairs need not materialize is dimly corroborated by the Chinese experience, for Forrest establishes:

The real difficulties were met with when the Chinese began not merely to adopt the superficial products of European science, but that science itself. Distinctions fine enough for the practical purposes of everyday life had to be refined far beyond that point, and in many cases as in the distinctions of chemical elements, the differences were too subtle to be expressed by compounds of manageable length. In this difficulty Chinese was, of course, not alone; European languages are reduced to using Latin, or artificial Latin, constructions for the exact definition of natural species, and the names of many chemical elements are hardly more parts of the languages which employ them than the biological names. But it must be allowed that the embarrassment was greater in Chinese than in polysyllabic languages which found no difficulty, in assimilating such words as 'iridium', or 'zoophyte'. In the realm of chemistry Chinese has to a large extent met the problem by the coinage of new words.

Forest (1973: 257)

The immediate inference from all this is that the monosyllabic nature of Chinese has ensured its elaboration without mere assimilation of IE terms. Unlike Stoberski, Ohly recommends:

Accommodate a foreign term only as the last resort, i.e. when you have exhausted all possibilities to coin an equivalent.

Ohly (1987: 243)

In a nutshell, Stoberski poses us a pseudo-dilemma. Neither in Picht & Draskau (1985) nor in Dagne & Gameda (1987) do we discern a clear objective of setting up a general conceptual taxonomy for the terminologist or terminological elaborator. Admittedly, Picht & Draskau do advocate the construction of systems of concepts but in special subject fields or disciplines like physics. They regard a system of concepts as "an indispensable aid in the elaboration of a terminology" (for it ensures):

- (a) *the reconnaissance of the structure of the inventory of concepts of a subject field as a preliminary to a systematic elaboration*
- (b) *the recognition of the exhaustiveness of an inventory of concepts*
- (c) *the comprehension of the relationship between concepts which may be important for the formation of terms*
- (d) *the recognition of the degree of congruence between the systems of concepts of different languages; this in turn is indispensable for the recognition of equivalence*
- (e) *the representation in a systematically organized dictionary of the results of terminology work..."*

Picht & Draskau (1985: 92)

A general conceptual taxonomy along lines similar to those of thesaurus compilers like Ballmer & Brennenstuhl (1986) would be of advantage to the terminologist.

The researcher sees his problem as residing in four factors:

- (a) lack of a general conceptual taxonomy
- (b) *ad hoc* approaches to terminological elaborateness
- (c) lack of a well-formulated theory of terminology
- (d) long-term terminological elaborateness

The problem may be stated as follows:

- (a) What is the general logical structure of the mode of thinking of a terminologist or a terminological elaborator
- (b) How can the lexicon of Luganda be extended such that
 - (i) the lexical extension is PEGITOSCA optimised and
 - (ii) the time interval up to terminological elaborateness is minimised?

The problem to be tackled in this study is justifiable on two fronts: an ideological one and an academic one. Two contemporary African thinkers have provided the ideological stimulus for the problem. In a seminal paper "Failure in the Obligatory Use of a Policy of Linguistic Independence" Kahombo Mateene writes:

It is said that African languages are [terminologically] underdeveloped, and it is true; it is also true that they are developable. But what has been done to develop them? Almost nothing. It depends upon our free will to develop and enrich our

languages by means of translation. Instead of dropping our languages in favour of European languages in the vain hope of making up for our scientific and economic lateness, we should make science and world technology assimilated into our languages of origin. Our African languages also must and can assimilate science and adapt themselves to modern life as Japanese and Chinese have done. The West has not yet completely assimilated us, our languages have the possibility of assimilating science, which is the pride of Europe.

OAU/BIL (1973-80: 25-26)

Although he gained access to University-level linguistics in French and English, Kahombo Mateene would like to see future generations of Africans assimilating science and technology in African languages among which one would possibly and probably find his Lingala. The fundamental role of the language of origin in scientific and technological progress is also well recognised by Dani W. Nabudere who, in a review of Bernal 1987, urges that

African children must be made aware of what we have achieved as the world's first civilisation to regain our self-respect and dignity, and to retrieve our culture from destruction from the machinery of "European progress". This does not mean turning our backs on modern developments. It means that modern development has to be reshaped to accord with the African self-image based on his own heritage. Any notion of "progress" or "modernisation" that does not start from a people's culture is tantamount to genocide. Japan has shown that it is possible to develop one's potentiality on the basis of one's culture.

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On the academic front, the study is motivated by the desire to contribute to:

- a) the theory of terminological elaboration in general,
- b) the theory of terminological elaboration of a Bantu language,
- c) the terminological elaboration of Luganda,
- d) the movement of Amharic, Kinyarwanda, Kiswahili, Hausa, Wolof and of all other African languages whose terminological elaboration is being supported and promoted by the states in which they are spoken.

The first component of the research problem will be tackled by advancing a theory of scientific terminology based on a general taxonomy of scientific concepts and the PEGITOSCA Criterion. The second part of the problem will be solved by applying the theory to Luganda. A solution to the second part of the problem posed will be confirmed or refuted in conjunction with the following six assumptions which the reader will be urged to entertain for the sake of argument:

- a) A society that uses a foreign language as its main medium of scientifico-technological education can hardly advance scientifico-technologically.

- b) A majority of Luganda speakers favour the terminological elaboration of Luganda to such a degree that it becomes a medium of scientifico-technological discourse at all levels of education.
- c) The overwhelming majority of Luganda speakers are opposed to large-scale assimilation of foreign expressions. In other words, they prefer a situation in which Luganda is expressionally as self-reliant as possible.
- d) There is no acknowledged source language of scientifico-technological terminology for Luganda; English and possibly Kiswahili are mere prompting languages.
- e) Probably well over 10 million expressions are required for full-fledged articulation of science, technology and economics in Luganda.
- f) Any Luganda expression for term status will have to fulfil the so-called PEGITOSCA Criterion.

The scope of the study will be determined by the following factors:

- a) We confine ourselves to the formal and natural sciences because it is here that problems of terminology are acute.
- b) We take English, German, Latin, Greek, Kiswahili and Luganda as the sources of expressional data.
- c) Issues of language policy in Uganda are entirely outside the scope of this inquiry.
- d) The literature on the scientific lexicon of Kiswahili is relatively scanty; on Luganda it hardly exists.
- e) The period of time required for testing for appropriateness of the hypothetically extrapolated lexicon of scientific Luganda is extremely short.
- f) The linguistic and scientific competence of the referees under cannot be expected to be always reliable.