Academy of Ethiopian Language

Science and Technology terms translation project

International ???on Terminology

**The Linguistic Theory and Methodology of the Science and Technology Terms Translation Project**

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June 1986

Addis Ababa

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The Amharic language due in various historical reasons, has served the Ethiopian society for many centuries as the language of wide communication. It is assumed that the growth and spread of Amharic started as early as the seventh century due to the weakening of the Axumite Empire. From that time until the advent of the 19th century we find that the Amharic language was used as a written language although on a lesser scale compared with the Geez language, a classical language in Ethiopia used mainly as the language of Christian literature. It was due to this fact that Geez was called lessanasehuf, the language of writing, while Amharic was known as Lessananegus – the Kings language.

Since the close of the 19th Century, Ethiopia has witnessed an uncontrolled influx of scientific and technological terms. It was during this time that the curtain of isolation from the rest of the world raised and its doors widely opened in welcome whatever modern science and technology had to officer. It might be expected this hitherto unknown cultural infiltration created at excepted problem, a problem which should be solved in one way or another. Therefore, when one seriously follow the development of the Amharic language from the literatures of the late 19th and early 20th Centuries, it becomes clear that Ethiopian were not indifferent to this linguistic phenomenon. Although not with a concerted effort but with individual initiative they tried their best to translate the new terms into Amharic. We can drew up a big list of each translations, and today one does not even think that they were terms devised for translating alien concepts. But since the effort made was not a centralized one, it was clearly noticed that for a single term two or more equivalent existed and therefore, anyone could choose the one which he thought to be more appropriate. To avoid such an haphazard approach in translating terms, it was felt that a centralized body should be established and entrusted to undertake such a responsibility. As a result in 1972 an “Amharic Language Academy” was established with a government Order No. 79, which later came to be known as “The Academy of Ethiopian Languages”. Part of the preamble of this Order reads as follows:

WHEREAS, we realize that in as such as the Amharic language is the national language of Ethiopia, it is essential that the language, while being faithful to its traditional and preserving its purity, should become a vehicle for the expression of the knowledge, learning and though engendered by modern civilization.[[1]](#footnote-2)

This institution, although it did not pay very much attention to the language modernization process in th early stages of its inception, later on a modest attempt was made in 1982 for some social science disciplines.

**The STTTP**

The major project regarding the translation of scientific and technological terms in Ethiopia is the STTTP which is funded by the United Nations Interim Fund for Science and Technology for Development (IFSTD). Although there was neither the technical know-how nor the experience in handling such a vital project, yet it was the feeling of all concerned that it should be launched. Starting from the simplest task of collecting, alphabetizing and defining the terms to be dealt with. In the meantime the available literature concerning the method and principle of translating technical terms was consulted. People who published works concerning the issue were co-opted.

The disciplines selected from translation were 10 dealing with the basic sciences and two related once such as Geography and Nutrition. The latter two were considered because of their interdisciplinary nature with some of the 10 disciplines.

The first task before starting phase I of the project was to form panels in clusters of three, that is, two subject specialist and one language expert. This was followed by a workshop where panelists were acquainted with the aims of the project and the role they would have to play. Two papers entitled “Technical Terms and their Translation into Amharic”[[2]](#footnote-3) and “Amharic World Formation Patterns”[[3]](#footnote-4) were presented. These two papers gave the impetus for generating interesting questions and discussions.

As the first state of the project was to collect terms from selected standard teaching materials (12+1), it was carried on by senior students of the respective disciplines, supervised by a senior lecturer. Then followed alphabetization and definition of the terms collected.

As has been mentioned above the translation of science and technology terms into Amharic in an organized and scientific way was new to the Ethiopian experience. Therefore to undertake such an important project should be in the most appropriate way and not in an experimental manner. This was the firm stand of the Academy of Ethiopian Languages. As a result, visits to three selected countries, with a long and wide experience in this field were suggested. These were Tanzania, Israel and Egypt.

The selection of these countries was not without valid reasons. The Swahili language is a language that plays an important role of wide communication in a multilingual society not only in Tanzanian government took a firm stand in developing this language to enable it to meet the required standard of a language that would act as a vehicle for modern science and technology. It is with this in mind that the Tanzanian government established the National Swahili Council in 1967 with Order no. 27. One of the main branches of the National Swahili Council is the “Foreign Terms Translating Committee”, whose rich experience was felt to be relevant to the Ethiopian project.

The Hebrew and the Arab Language Academics were felt to be very relevant to the project since both languages, like Amharic belong to the Semitic language family; thus demonstrating common phonological, morphological and syntactic features. Therefore it became axiomatic that learning from the experience of these institutes in translating terms would be of paramount importance for the success of our project.

After our arrival in these countries meetings were arranged with experts, actually engaged in the practice of translation. Lengthy discussion took place where notes were taken to record the salient points, of the discussion. Papers, articles and books were made available by the host institutes for us to bring back to Ethiopia.

**Principle for Translating Technical Terms**

From the papers presented at the seminar at Nazareth, from the various meetings of panelists and the experiences gained from the countries visited we were able to draw up methods and principles for the translation of science and technology terms.

I would like to mention at this juncture that by translation we do not mean a word for word translation, as the term might convey but the whole complex process that has to be followed in tackling this problem. This will be demonstrated below:

1. The more special the term the better it is to leave it untranslated. Translate all those terms that are used for general education as far as possible, keeping in mind that when a term is in a local language, even persons not directly connected with it understand it easily.
2. Even when a term has an international usage and it thus left untranslated it must be modified to fit into the language. Thus which form of the international term should be used becomes important. For example, in Hebrew the Russian form of the suffix of “-tion” is used.
3. Thoughtful coinage rather than coinage by chance is preferable ???
4. Besides active coinage work, descriptive work such as collecting inputs and feedbacks from the public is necessary

e.g.

road-roller damtaw

motorcycle daqddaqqit

1. Do not translate terms that have more or less found their way into the language, e.g.:

x-ray kilowatt

antenna camera

compass telescope

1. When adopting a term, grammatically affixes should be translated, e.g.:

Brownian brawnawi

Atomic energy atomawigulbat

Diamagnetism diamagnetennat

1. Using the same term for many branches of science should be avoided, e.g.:

Solution in chemistry betat

Solution in mathematics facc

Base in chemistry bez

Base in mathematics tarabi

Axis in geography zango

Axis in zoology zangoatent

1. The naming of a term should be based not only on the English term but also on other languages as well. Accordingly, the term should be selected from different languages in accordance with their adaptability into the receptor language e.g.:

Hollow masonary bloket

Bearing kusnetta

Gypsum gesso

Parliament parlama

1. Avoid as far as possible, using very common and overcharged terms for scientific purposes, e.g.:

Development gambata instead of maganbat

Absorption mattat instead of mamtat

Adhesion tebqat instead of mattabaq

Auditory sematawi instead of yamasmat

Outbreak fendata instead of mafandat

1. Terms that have subtle similarities or differences of meaning should be carefully delineated, e.g.:
2. Force Hail b) sketch bigar

Power aqm drawing rasses

Energy gulbat design dizain

Diagram simarnedg

Outline nedf

1. As far as possible very common affixes should have corresponding affixes in the receptor language. e.g.:

Anti- freeze sarsabrag

Anti-knock agent sarakuwakuate

Pre-cambrian qedmakambriyawi

Prehistory qedma Tarik

Biology senaheywat

Seismology senaenqatqqatemaret

1. Verbalize nouns, if this will help in translating the concept adequately, e.g.:

Easting mamasraq from mesraq “east”

Polarize mawalat from walta “pole”

Afforestation madnan from dann “forest”

1. The new terms must fit into the language pattern so that the form of the term coined, if a noun should be declinable with ease, and if a verb should be conjugated without difficulty, e.g.:

Amplify magnan

Amplifier agnan

Amplification ganana

Amplitude gannet

Elastic lastik

Elasticity talastakinnat

Absorb mamtat

Absorber matac

Absorptance mettos

Accelerate matdaf

Acceleration tadfat

Accelerator atdafi

We can clearly observe that this short exposition of the principle to the followed in translating technical terms into any language is of paramount important to be followed as guidelines for projects like ours. Not only this, but also the translation methods which have been followed by panelists and which I shall present in the next few lines ae also equally important, since they are the tools used in translating terms. Thanks are due to the Hebrew and Arab Language Academics and the National Swahili Council which were extremely cooperative n sharking their experiences in this field.

The following are methods followed in translating science and technology terms into Amharic:

1. Intrinsic Characteristics of the concept

* Shape, as in;

U-tube “ha” tubbo (the sound “ha” is represented by “U” which is identical to “U”

Corrugated sheet snssnqorqorro (lit. pleated sheet)

Nut qarenfud(clover)

Grid f regreg (Lit. interwoven)

Volume, as in

Column qulle l dammana (lit. heaped cloud)

2-litre flash hulatt liter fasko (literal translation)

Stock kemccat habit (lit accumulated wealth)

* Strength, as in:

Active earth pressure geffitafar (lit, earth pressure)

Beating force sakmmakkafat (lit, load distributor)

Astable regatayallas (lit. unstable

* Special characteristics as in:

Swivel chair taskarkariwanbar (lit rotating chair)

translation)

Anchor bolt asaricikal (lit. tying peg)

* Material, as in:

Ferromagnetic beratammamagnatis (lit. iron magnet)

Margarine yasncatqebe (lit. plant butter)

Mallet ha’ncatmadosa (lit. wooden hammer)

1. Extriustic characteristics of the concept

* Application, as in:

Bit braceyaeggmasarsaraya (lit. hand-borer)

Control grid taqotatariwanfit (lit. control swivel)

* Location, as in:

Base line mannasamasmar (lit. starting line)

Caller beam quncowagagra (lit. summit bean)

Frontal rain genbarzenab (literal translation)

1. Characteristics of origin

* Method of manufacture, as in:

Magnetic tape magnatisawitabtab (literal translation)

Industrialized building febrikhensa (literal translation)

Animal product yansesatwettet (literal translation)

* Discoverer, as in:

Angstrom unit ya angstrom ahad

Brownian movement brawnawiqesqsat

Love wave yalawmogad

* Describer, as in:

Pouparts ligament yapupartmalayaley

Marxix philosophy markesawifelsefenna

* Producer, as in:

Buusen burner yabensankurraz

Adam Opel adamopel

* Country of origin, as in:

Scotch Whisky skoccwiski

Tanus tanuusmakina

Before launching the second phase of the project which is the actual translation process, a key paper was presented by the language experts who visited these countries on the principles and methods of term coinage at a conference at Ambo.[[4]](#footnote-5) Thee discussion generated at this conference was a significant factor in making the second phase of the project start with a clearer strategy in mind.

I firmly believe that the successful result so far attained is mainly due to the experience gained from the foreign institutes visited and tremendous enthusiasm shown by every panelist and the coordinators of the project.

**The Task Ahead**

We know that this venture is the starting point on a longer journey that awaits us. The experience gained so far, I believe, could be taken as a spring-board for a wider undertaking in the near future. However, the most urgent task to be given priority is the popularization of these over 15,000 translated terms. Funds should be secured either from within or from without the country.

Popular reading materials should be compiled and disseminated in schools and among the public. The mass media such as the press the radio, television, and the cinema should be involved in the popularization process. With this, I believe, all the efforts made and all the money spent will be meaningful ad encouraging I the task ahead.

Lastly, I would like to add that African countries which have started dealing with the same kind of problems should coordinate their efforts in order to be able to exchange their experiences. Governments should give top priority to language modernization, which no doubt would very much contribute in accelerating their development. It is beyond doubt that using mother tongues as media of instruction in all fields of learning would make the t teaching-learning process meaningful, transparent and above all economical.

1. NegaritGazeta, 1972, p. 127. [↑](#footnote-ref-2)
2. አምሳሉአክሊሉ “የውጭአገርፅንሰሐሳብትርጉምበአማርኛ” in Journal of Ethiopian Studies, vol. XIV Jan. 1980, pp. 1-25 [↑](#footnote-ref-3)
3. Habtermariam Marcos (unpublished) [↑](#footnote-ref-4)
4. ዳኛቸው መርቁና አምሳሉ አክሊሉ “የስያሜ ቃላት መርህና የስያሜ አሰጣጥ ዘዴዎች” ሕዳር 1974 ዓ.ም. /የተባዛ/ [↑](#footnote-ref-5)