

METHODS OF TERMINOLOGICAL INNOVATION USED BY THE CAIRO LANGUAGE ACADEMY

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The encounter of the Arabic language with Western cultural concepts goes back as far as the middle of the nineteenth century. This encounter constituted a threat to the literary Arabic, *al-luġa al-fuṣḥā*. The new concepts which kept infiltrating more and more into each and every sphere of life, revealed that Arabic was unprepared to meet modern challenges. The lack of words and terms, to express the new concepts, was striking in all spheres, but most particularly in the scientific domain.

This insufficiency created the need to find immediate solutions to fill the gaps. Different solutions were adopted in each sphere of life. In the literary and journalistic field, writers coined new words and terms, haphazardly and independently, according to their individual views and tastes. On the other hand, *al-luġa al-ʿāmmiyya* being dynamic and unconstrained, adjusted to modern conceptions and assimilated new foreign words and terms. In this way it provided the speaker of Arabic with a natural, unrestricted and uninhibited tool of communication.

The process of the *taʿrīb* – the adoption of a foreign word and its absorption into Arabic – kept spreading in all spheres of life.

As a result, *al-luġa al-fuṣḥā* had to confront, from the end of the nineteenth century on, a whole series of problems which threatened its supremacy. The purity of the language was jeopardized by an “overload” of words and terms, accumulated by a very great number of innovators and innovation methods.

The position of *al-luġa al-ʿāmmiyya* as a convenient, easy and complete communication vehicle, discredited the prestige of the *fuṣḥā*.

The standing of Arabic was also weakened by the use of French in the school system, according to Egypt’s educational policy.

Moreover, it was the beginning of the Arab national revival, and Pharaonic as well as other circles in Egypt were calling for *tamṣīr*, an amalgamation of *al-luġa al-fuṣḥā* and *al-luġa al-ʿāmmiyya*. They even preached the substitution of the *fuṣḥā* by the local *ʿāmmiyya*, and the recognition of the latter as the official Egyptian language, which would serve as basis to a new national self determination (see Gershoni & Jankowski 1986:217-221).

This brought about a wave of demands on behalf of scholars and intellectuals to create a language academy, responsible for the protection and modernization of Arabic.

Consequently, in 1932, King Fu'ād established *Mağmaʿ al-Luġa al-ʿArabiyya al-Malakī* which is called today *Mağmaʿ al-Luġa al-ʿArabiyya bi-l-Qāhira*.

An examination of the initial manifesto of the Cairo Academy gives the clear impression that it largely constitutes an adequate answer to the problems mentioned above:

“The Academy has to substitute the *ʿāmmiyya* as well as the non-arabicized foreign words by *fuṣḥā* words. This will be done first of all by looking for Arabic substitutes existing in its classical sources. If such Arabic substitutes cannot be found, the Academy will create new terms by means of well established processes like *iṣṭiqāq*, *mağāz* and others. If this cannot be done, the Academy will resort to *taʿrīb*, while maintaining, to the best of its ability, Arabic sounds and patterns” (*Mağalla* 1.22).

In fact, the substitution of foreign words and terms by existing Arabic words, which means translation, is the most common method used by the Academy.

The translation can be divided into three categories:

- 1) substitutional translation, 2) explanatory translation, 3) compound translation.

1) *Substitutional translation* – is the natural and chief method of terminological innovation used by the Academy ever since its establishment.

For example, the following terms belonging to natural science, coined in the nineteen thirties:

al-ḥayāt – life

an-numū – growth

al-badra – seed

The following examples are taken from terminological lists, set up in the early nineteen eighties, in the fields of hydrology, chemistry and pharmacology:

ruṭūba – humidity

yanbūʿ – spring

baḥūr – incense

It is clear that these terms are trivial, self-evident terms, which have been confirmed officially by the Academy as exact scientific terms in addition to their usual general meaning. All of these terms, with precisely the same meaning can be found in dictionaries published prior to the establishment of the Academy, as well as in classical dictionaries.

2) *Explanatory translation* – is a paraphrase rather than a literal translation of the term in question.

The following examples are terms in the sphere of Psychology extracted from The Cairo Academy Dictionary of Psychological Terminology of 1984:

al-masāfa bayna r-ruʿya wa-n-nuṭq - Eye voice span. (While the original version is: Distance eye voice, the innovated term is phrased: The distance between vision and articulation).

ʿilāğ at-tasalluṭ al-ʿaqīdī - Faith cure. (While the original version is: Cure by faith, the innovated term is phrased: Treatment by means of dogmatic overpowering).

madrasat at-taʿlīm al-maḥsūs - Opportunity school. (While the original version is School of opportunity, the innovated term is phrased: The school for specialized studies).

This process of paraphrasing is also used, when there is a composite foreign word with one meaning. The following examples are terms in the sphere of natural science and psychology, taken from The Cairo Academy Dictionaries of 1984:

- ‘*ilm al-ğudad aš-šumm* - endocrinology (the science of closed glands)
tahta sarīr al-muḥḥ - hypothalamus, (under the bedding of the brain; *hypo* = under; *thalamus* = inner room)
 ‘*ilm taḥsīn al-bī’a al-insāniyya* - euthenics (the doctrine of improving the human surrounding)

It is obvious from these examples that quite often the Academy paraphrases rather than innovates in spite of its own decision to prefer one-word terms to terms composed of two or more words (*Minutes* 1.433).

3) Compound translation

A great many foreign terms are compound words with several components which, taken separately, have, each, their own meaning.

This phenomenon is quite limited in Arabic, which is based on the principle of trilateral roots. The multinominal form rarely fits into the usual Arabic structures.

That is why the Academy has refrained from resorting to the *naḥt* and the *tarkīb mazğī*, the classical compounding methods of Arabic. The *naḥt* is a combination of fractional components into one literal unit, like *basmala* from *bi-smi Allāh*, *ḥarwqala* from *lā ḥawla wa-lā quwwata illā bi-Allāh*, etc. While the *tarkīb mazğī* is a combination of two complete words into one literal unit, like *Ba‘labakk*, *Ḥaḍramawt* and the modern word *barmā’i*.

While refraining from making use of those two methods, the Academy has nevertheless created a few such words, like the following ones: *šibkalī* - alkaloid, is, by way of *naḥt*, a combination of *šibh* and *kalī*

adrad qablḥakkī - aproterodont, is, by way of *tarkīb mazğī*, a combination of *qabl* and *fakk* (an animal which has not yet teeth)

an-nisfhabliyyāt – hemichordate (a low vertebrate group) (*hemi* = half)

The very pronunciation of the words *an-nisfhabliyyāt* and *qablfakkī* remains obscure as the terms have not been vowelized. Actually, the Academy has never decided explicitly how to vowelize the first element in a combination of *tarkīb mazǧī*.

In its initial manifesto, the Academy mentioned another method, the *maǧāz*, which is the semantic extension. Soon after its foundation, when the Academy discussed which words to choose for the extension, archaic words called *lafz mahǧūr* or *ǧarīb al-luǧa* were brought forward to serve as substitutes for foreign or *ʿāmmiyya* words. At the beginning, the Academy did accept terms of which the following ones are an example:

qitār – originally meaning camel caravan, to be used for train

qāzūza – originally meaning phial, drinking-flask, to be used for ampoule

ṣarḥ – originally meaning a tall building, to be used for sky-scraper

However, this practice was gradually abandoned. The reservoir of ancient words diminished, as most of the ancient words were not really adaptable for modern use. (See Ibrāhīm Madkūr, *Maǧalla* 22.18 and Muḥammad Kāmil Ḥusayn, *Maǧalla* 11.138.)

The *istiqāq* innovation method, which means creation of new words, also appears in the Academy's manifesto. This is the Academy's most productive method of terminological innovation. While all the other practices which the Academy mentioned in its manifesto derive terms from a vocabulary already existing in Arabic or in other languages (*taʿrīb*).

According to the well known principle of *qiyās*, each new Arabic word has to be built on an existing Arabic root, moulded into an

existing Arabic pattern, and linked to the semantic significance deriving from them.

Thus, as soon as it started to make use of the *ištiqāq*, the Academy was confronted with a major problem: how to apply the principle of *qiyās* which, for centuries, had preserved the uniformity and structural constancy of the Arabic lexical system.

Aḥmad al-Iskandarī's words during a debate at the Academy on this matter illustrate precisely how problematic the subject is. (The particular topic discussed being the *fa^cāl* structure.):

"*wa-fihā tafṣīl. fa-idā kānat min fi'l muta'addin fa-biya qiyāsiyya, wa-idā kānat min fi'l lāzim fa-ḡayr qiyāsiyya wa-ba'duhum yaqūlu bi-qiyāsiyyatihā mutlaqan wa-minhum man yamna'u qiyāsiyyatahā*" (Minutes, 1.352).

al-Iskandarī indicates several conceptions here: If the form derives from a transitive verb, it is *qiyāsiyya*. If the form derives from an intransitive verb, it is not *qiyāsiyya*. Some say it is always *qiyāsiyya*, while other totally disqualify this form from serving as a model for reproduction.

After generations of grammarians had overloaded the *qiyās* with restrictions and limitations, the Academy inevitably confronted enormous difficulties.

However, the Academy has not followed tradition submissively. It boldly decided, as early as March 1934, to allow, whenever it seemed necessary, to use denominative derivation (*ibid.*, 356.). Such practice is strictly forbidden in classical grammar, the *maṣḍar* being considered as the substructure of the *ištiqāq*. The Kūfan school went as far as regarding even the verb as the substructure of the *ištiqāq* (Ibn al-Anbārī, *Inṣāf* 102-107, N° 28).

This decision about denominative derivation paved the way to a new conception of the *qiyās*. Thus, the Academy ventured upon new derivations which were unorthodox according to classical grammar. For example: according to grammar the name of an instrument can be derived only from a triliteral transitive verb. Yet, the Academy stipulated that such a derivation be constructed on the basis of a

triliteral verb, without specifying its nature (*Minutes* 1.397). An examination of the terms coined by the Academy shows that it has, indeed, made derivations from intransitive verbs and even from nouns, according to its resolution about denominative derivation. For example:

midwar – cyclometer, derived from the intransitive verb *dāra*

minwa'a – meteorograph, an instrument graphing atmospheric phenomena, derived from the noun *naw'*, meaning star

mīqat – chronometer, derived from the noun *waqt*, meaning time

The method called *ta'rīb* is the adoption of foreign words. In the Academy's manifesto it is considered as a method to be used only after all the other practices have been exhausted. By stipulating that adoptive foreign words should be fitted into pure Arabic patterns, the Academy actually limited the use of the *ta'rīb* even more.

It is to be pointed out that at the beginning of its activity, the Academy disqualified the *ʿāmmiyya* as a reservoir for providing Arabic. This meant, actually, that the Academy preferred foreign languages to the *ʿāmmiyya* as a source of enrichment for the Arabic vocabulary.

However, the ever growing flow of scientific and technological terms and the urgent need for an easy and quick method providing the language with missing terminology, made the Academy resort energetically to the *ta'rīb* and arabicize a great many foreign terms.

The circumstances also forced the Academy to abandon the principle of adjustment to Arabic patterns.

From the nineteen fifties on, the Academy has been adopting foreign scientific words and terms, in an ever growing pace on a very large scale, as they were, in their original foreign form. For example:

bankit – banquet

bāntūğrāf – pantograph

bārūmitir – barometer

As historical circumstances have changed, the *ʿāmmiyya* no longer threatens the supremacy of the *fushā*, as it did at the beginning of this century, and the linguistic unity of the Arab world has become a fact. Consequently the Academy implicitly recognized the *ʿāmmiyya* and

legitimized its role as word reservoir. For example, the Academy has sanctioned words like: *ḥayšūm* – gill, *‘uṣ‘uṣ* – coccyx, etc.

Summing up, the Academy's activity in the field of terminology is characterized by a gradual evolution: It started with a conservative manifesto and ended up doing liberal work. There is a clear and growing trend toward openness and one can say that, through a renewed lexical system, the Academy has developed, indirectly, a modern Arabic lingual universe, definitely bearing its marks.

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