

DICTIONARIES FOR TRANSLATION(*)

by: Ali M. Al-Kasimi

It might be useful to start with a few definitions of terms that will recur in this paper, namely : lexicology, lexicography, translation, and dictionary.

Lexicology is the study of words and their meanings in one language or a group of languages. It is basically concerned with the lexical systems of the language such as sememic syntax, sememic components, idioms, synonymy, polysemy, and lexemic components.

Lexicography is the making of dictionaries, which involves five principal steps : gathering of data, parsing and excerpting of entries, filing of entries according to a certain arrangement, writing of articles, and publication of the final product or storing it in a computer. In other words, lexicography is the practical application of lexicology.

A dictionary is a selection of lexical items, arranged in a certain order, with information concerning them, expressed in the same language (monolingual dictionary - i.e. defining dictionary, and thesauruses), or another language, (bilingual and multilingual dictionary - i.e. dictionaries for translation), and this selection of lexical item could be produced in a book form, a card form, or it may be computerized.

Neither the intralingual translation nor the intersemiotic translation is dealt with in this paper. It is the interlingual translation or translation proper that concerns us. It is the interpretation of verbal signs of one language by means of some other language, with the linguistic patterns maintained as closely as possible - phonologically, syntactically and semantically as well as stylistically.

* A lecture given at the Lexicography Summer School organized at the University of Exeter, 16th-23rd August, 1980.

I Dictionaries for translation

It is agreed that lexicography is a branch of Applied Linguistics which depends heavily on lexicology. Lexicography is primarily concerned with the production of two types of dictionaries : monolingual dictionaries (or dictionaries for definitions and synonyms) and bilingual or multilingual dictionaries (sometimes called dictionaries for translation). Although these two types of dictionaries belong to the same branch of Applied Linguistics (i.e. lexicography) and have many features in common, they differ in several ways according to the users they intend to serve, the needs they cater for, their purpose, and the process of their making. The morpho-phonemic, syntactic, and semantic problems involved in dictionaries for translation are different from and more complicated, in many ways, than those in dictionaries for definitions or synonyms. A major source of difficulty in dictionaries for translation is that they deal not only with two different kinds of cultural and linguistic behaviour, but with two different systems of concepts as well.

Historically speaking, dictionaries for translation are older than monolingual dictionaries. Archeological work in Iraq resulted in the discovery of Sumerian-Akkadian dictionaries which were used in the interpretation of Sumerian, the oldest documented language, whose texts date from before 3,000 BC. Western lexicography also started with bilingual glosses compiled by teachers and students in England, Germany and other European countries as an aid to understanding materials written in Latin.*

This seems to show our need for bilingual dictionaries was greater than our need for monolingual ones because it is more difficult to understand other languages and cultures than to understand our own.

* Winifred P Lehman, Descriptive Linguistics, (NY : Random House, 1975) 299.

II Types of Dictionaries for Translation

Dictionaries, whether monolingual or bilingual, can be classified in various ways according to range, perspective, and presentation. These typological classifications provide guidance and help to librarians, lexicographers, language teachers, and dictionary users. Many outstanding linguists have examined thoroughly and critically a great number of existing dictionaries to come out with comprehensive typological classifications of dictionaries. Among those linguists are the Russian Schcherba, the Frenchman Alain Rey, and the Americans Sebeok and Malkiel.

In the light of their coverage of the lexicon of the language, dictionaries are divided into general and specialized dictionaries. The first attempts the coverage of the whole lexicon of the language whereas the latter deals with one sector of the lexicon such as medical, chemical, or philosophical terms.

In terms of their inclusion of encyclopedic information, dictionaries are categorized into lexical and encyclopedic ones. Encyclopedic dictionaries such as the Century Dictionary or the Oxford English Dictionary tend to offer encyclopedic information which is characterized by the inclusion of names of persons, places, and literary works, coverage of all branches of knowledge, and by extensive treatment of facts.

In regard to their attitudes to usage, dictionaries are either prescriptive or descriptive. Prescriptive dictionaries, which are sometimes called normative or didactic, attempt to dictate norms regarding pronunciation, grammar or the status of the lexical terms by using labels such as "slang", "colloquial", "illiterate", "low words", and so on. On the other hand, descriptive dictionaries try to record the lexicon of the language and its usage without setting norms. Traditionally dictionaries were prescriptive especially those of the Academies. In 1961, Webster's Third New International Dictionary adopted the descriptive approach and in so doing it raised a controversy

and was accused of encouraging permissiveness in the use of the language.

In terms of their treatment of the history of the lexical items, dictionaries are classified as historical or non-historical. A historical dictionary, which is sometimes called etymological, tries to give the history of all words during a given period of time : it shows not only the birth of new words and new meanings but also their changes and their gradual death. The senses of the entries and the quotations are arranged historically in such a dictionary. In comparison, the non-historical dictionary describes the lexicon of the language in its present state, does not provide etymologies, and arranges its senses according to frequency or any other descriptive criterion. It was Dr Craigie who came up with the notion of "period dictionaries" in this country in 1919, when he stated that the Oxford English Dictionary in its attempt to cover the whole history of English could not do justice to any one period and proposed that there should be a series of dictionaries of different historic periods such as the Old English Dictionary, Middle English Dictionary, Early Modern English Dictionary, and so on.*

In the light of the language variety they record or describe, dictionaries can be divided into dictionaries of the literary language vs. dictionaries of the spoken language. Phonological, grammatical, and semantic differences between the literary and the spoken varieties exist in almost all the major languages; however, this phenomenon, which is termed as "diglossia" by Ferguson, is more magnified in certain languages such as Arabic and Greek. Therefore, the need is sometimes felt to produce dictionaries devoted to one of the varieties. An example of this is the series of bilingual dictionaries produced by Georgetown University in the sixties for "Iraqi Arabic", "Syrian Arabic" and "Moroccan Arabic".

In actual practice, dictionaries do not abide by these classifications, and most of them contain various features of opposing approaches : prescriptive and descriptive, historical and non-historical, literary

* Transactions of the Philosophical Society (1925-30), pp 6 - 9.

and spoken, general and specialized, and so on.

These classifications apply to both monolingual and bilingual dictionaries, and there are other types that are more related to bilingual dictionaries. Three major types will be mentioned here :

- 1 Dictionaries for machine translation,
- 2 Dictionaries for terminological data banks, and
- 3 Dictionaries for human users.

1 Dictionaries for Machine Translation:

The use of the computer in linguistic research, language teaching, and machine translation has imposed several problems and highlighted our understanding of how language works. Machine translation requires detailed grammars of the source and target languages, an interlingual grammar, a comprehensive bilingual dictionary, and complex computer-programming systems to store, process, and retrieve the data.

A bilingual dictionary designed for machine translation differs in many respects from one intended for the human translator. Firstly, while the ordinary dictionary is expected to provide only the information which the dictionary user needs and this information is usually about the foreign language, the dictionary designed for machine translation must contain much more grammatical information about both languages. Secondly, the bilingual dictionary which is intended for the human user is permitted to include all or part of the grammatical information in the article (e.g. in the illustrative example), but the bilingual dictionary designed for machine translation must incorporate all grammatical information in the entry itself, so that the dictionary can function as a kind of sentence generator. Thirdly, while synonymous equivalents might be cited in the ordinary dictionary for the purpose of stylistic variations, they are strictly avoided in the dictionary designed for machine translation. Fourthly, explanations and definitions are allowed and even required in certain cases in the dictionary intended for the human user, but they cannot be included in the dictionary designed for machine translation.*

* Ali M. Al-Kasimi, Linguistics and Bilingual Dictionaries (Leiden : E J Brill. 1977), pp 26-27.

The magnitude of the problems of achieving machine translation of literary or everyday language is great. Fortunately, machine translation was an attempt to fulfil a crying need, i.e. the rapid translation of technical materials. As technical language is highly stylized, and as technical languages share similar vocabulary and patterns, the linguistic analysis and programming systems required for machine translation of technical material were feasible.

2 Dictionaries for Terminological Data Banks :

The great number of technical terms that are produced every day in the industrial countries, the need for the standardization of terminology and the demand for smooth inter- and intradisciplinary communication across language barriers have resulted in increasing work in the field of terminology. This work led to creating terminological data banks that make use of computers to store, treat, and retrieve scientific and technical terms and the necessary information related to them in one or several languages.

At present, there are about ten terminology banks in Europe and America (including Canada) and a dozen more are under construction. Most of them tend to specialize, and the number of languages depends on the needs of the sponsor, so while the terminology bank of Canada is bilingual (English and French) the Terminology Bank of Siemens in Munich is multilingual (eight European languages and Arabic).

The information included in a bilingual or multilingual dictionary prepared for a terminology bank is different from the information which is included in a dictionary intended for the human user or in a dictionary designed for machine translation. Although the information included in terminology banks differ slightly or largely from one bank to another, the First International Conference on Terminology Banks which was held in Vienna in April 1979 emphasised the inclusion of certain types of information to facilitate the exchange of data among the terminology banks. These types of information are as follows :

- (i) A code which identifies the terminological unit so that it can be altered or erased.

- (ii) A status rating indicating whether the information is fully reliable, reliable in part, provisional or tentative.
- (iii) Date on which the term was produced or last updated.
- (iv) Person, body or institution which coined the term.
- (v) The special field to which the term belongs.
- (vi) The term (single- or multi-word term, phraseological expression) in each of the languages of the bank.
- (vii) Source of the term.

In addition to these minimum requirements other types of information are desirable, the most important of which are :

- (viii) Definitions of the concept or concepts the term refers to.
- (ix) Sample contexts illustrating how the term is used.
- (x) Grammatical information such as part-of-speech labels.
- (xi) Regional limitation labels such as American, British, Canadian.
- (xii) Language level indicators such as laboratory, factory, advertising, jargon, etc.
- (xiii) Usage recommendations labels (such as standardized, preferred, allowed, deprecated, etc.)
- (xiv) Relevant bibliographical information on the term*.

The exchange of terminological information among terminology bank is hampered by two main obstacles : firstly, terminology banks do not

* Karl-Heinz Brinkman, "Quality Criteria for the exchange of terminological data" a paper presented to the Conference.

use similar hardware nor identical programs; secondly, there is no uniform system of classification of special fields of knowledge and every terminology bank uses its own classification system which is chiefly aimed at meeting its own retrieval requirements.

A terminology bank has three main functions :

- (1) It is a valuable tool in research on the development of general and special theories of terminology.
- (2) It is an aid to terminologists in documenting, updating, and standardizing their scientific and technical terms.
- (3) It is an aid to translators. In this case, the translator usually reads the passage he wants to translate, underlines the words he does not know, and types them on the terminal to see their meanings on the CRT or in a printout. This type of translation can be termed as "computer-assisted translation" to be distinguished from "machine translation" which is done by the computer itself.

3 Dictionaries for the Human User:

Before he compiles his bilingual dictionary, the lexicographer should answer two important questions :

- (i) What kind of user is the dictionary intended for? Is it the speaker of the source language or the speaker of the target language?
- (ii) What purpose does the dictionary serve? In other words, is the dictionary meant to help the user in understanding the foreign language or in expressing it?

These two guiding questions show that there are four types of bilingual dictionaries :

- 1 A bilingual dictionary for the speakers of the source language.
- 2 A bilingual dictionary for the speakers of the target language.
- 3 A bilingual dictionary for the comprehension of the foreign language
- 4 A bilingual dictionary for the production of the foreign language.

Purpose Speaker	for comprehension	for production
Speaker of source language	(1)	(2)
Speaker of target language	(3)	(4)

1 & 2 Dictionaries for the Speakers of the Source Language vs. Dictionaries for the Speakers of the Target Language.

By the source language is meant the language of the entries, and the target one is the language translations or equivalents. In an English-Arabic dictionary, English is the source language and Arabic is the target one.

Linguists agree that one source of trouble of most existing dictionaries is that they try to cater for the needs of both the speakers of the source and target languages at the same time. As the needs of those two kinds of speakers are different, it is impossible to pay equal attention to both kinds of speakers in one and the same work.

A dictionary intended for the speaker of the source language should differ from one intended for the speakers of the target language in several ways, for example the language of the directions, its vocabulary selection, or the cultural orientation of its information.

Some dictionaries like The German-English Dictionary of Everyday Usage gives illustrative examples in both languages whenever it is necessary, but this procedure makes dictionaries cumbersome, bulky, and expensive.

Because of the usual limitations on the size of the dictionary, the lexicographer should select its entries in accordance with the needs of the speakers he is aiming at. If an English-Arabic dictionary is

intended for the British user, there is no point including the sporting terms of English Cricket, which is unknown in the Arab World. But if the dictionary is designed for the speakers of Arabic, these terms may be included in the dictionary since an Arab user might encounter some of these terms in English newspapers and magazines.

The information provided in the articles of the dictionary such as the illustrative examples and the pictorial illustrations, should also be oriented to the cultural background of the speakers for whom the dictionary is intended. In an English-Arabic dictionary designed for Arabs, for example, a picture of a camel is not necessary whereas a picture of a church would be very appropriate.

3 & 4 Dictionaries for Production vs. Dictionaries for Comprehension.

Before the Second World War, foreign language teaching in general emphasized reading for comprehension rather than speaking or writing for communication. Accordingly, lexicographers assumed that the function of the dictionary was to help the reader in understanding the unfamiliar words he came across in his reading of foreign literature.

Currently, the development in human communication requires new dictionaries which help the users express themselves appropriately in the foreign language.

The distinction between a dictionary for production and one for comprehension shows itself in the choice of source and target language. In compiling an English and Arabic dictionary for English speaking users, English should be the source language if the dictionary is intended for production, whereas Arabic should be the source language if the dictionary is meant as a tool of comprehension.

Asked to make two dictionaries of the same size, one for comprehension and one for production, the lexicographer should include more entries with more senses in the former than in the latter. On the other hand, the entry words in a dictionary for production should be of general productive nature, and their articles should provide the user with

all the morphological and syntactic information that enables him or her to use the words correctly.

A dictionary which is intended to serve both purposes : comprehension and production should be bidirectional (i.e. having two parts : English-Arabic and Arabic-English).

Major Problems of Dictionaries for Translation .

The vast majority of problems in dictionary making are similar in both monolingual and bilingual dictionaries. However, two of the major problems unique to dictionaries for translation are discussed here.

These problems are :

- (I) the selection and presentation of ready equivalents, and
- (II) meaning discrimination.

I The Selection and Presentation of Ready Equivalents in Dictionaries for Translation.

The translations of entry words in a bilingual dictionary are usually of two types :

- (a) translational equivalents, and
- (b) explanatory equivalents.

A translational equivalent is a lexical unit which can be immediately inserted into a sentence in the target language; e.g. in an English-French dictionary boy = garçon. An explanatory or descriptive equivalent is one which cannot be always inserted into a sentence in the target language, e.g. boyhood : état de garçon. To cite a translational equivalent for the word boyhood, the lexicographer may give adolescence or jeunesse. But the English entry word is restricted to male children whereas the two French translational equivalents are not; and so the lexicographer may try a compromise and say, for instance boyhood :

adolescence (d'un garçon).*

A translational equivalent is either absolute (i.e. covers the whole grammatical and semantic range of the lexical meaning of the entry word) or partial. Absolute equivalents are rare. This is due to several factors the most important of which are :

- (1) Concept systems are not identical in different languages.
- (2) Semantic fields of presumed equivalents in different languages are not always similar.
- (3) The culture-bound words which denote objects peculiar to the culture of the source language might not even have corresponding equivalents in the target language.
- (4) The scientific and technical terminology does not exist in the vernacular language of the developing countries.
- (5) The meaning of words has a fluid and inconstant nature. This phenomenon was outlined by Nida in his three fundamental semantic presuppositions :
 - "1 No word (or semantic unit) ever has exactly the same meaning in two different utterances;
 - 2 there are no complete synonyms within a language;
 - 3 there are no exact correspondences between related words in different languages."**

However, a lexicographer does his best to provide a translation that makes sense, conforms to the original, and represents the linguistic usage in the target language. He might find himself forced to use partial equivalents and in this case he should draw the dictionary users'

* Ladislav Zgusta, "Equivalents and explanations in bilingual dictionaries" - a paper presented to the Conference on Lexicography, LSA, Columbus, July 23, 1970.

** Eugene A Nida, Bible Translating.

attention to the differences, grammatical or semantic, between the entry word and its (partial) equivalent.

In their effort to provide ready equivalents, lexicographers might resort to creating them by using one or more of the usual techniques of expanding a lexicon, namely (a) lexical borrowing, (b) loan translation, (c) new coinage, (d) giving new meanings to existing words, (e) extending the meaning of existing words, and (f) compounding new words from existing elements in the language, or from it and another language.

II Meaning Discrimination.

An entry word and/or its equivalent might be polysemous, thus the dictionary user cannot select the appropriate equivalent or the proper sense of an equivalent. In this case the bilingual dictionary should provide meaning discrimination. For example, if a French student of English wants to say "Je vais faire un tour en Angleterre" in English and does not know the equivalent of "tour" in English, he might consult a dictionary, say, Heath's New French & English Dictionary which will give him the following :

- (1) tour ... n.m. turn, round, twining, winding; revolution, circumference, circuit, compass; twist, strain; tour, trip, trick, dodge, wile; feat; office, service, vein, manner, style; place, order; lathe; turning-box; wheel; mould ...

And so he will not be able to select the equivalent which fits his meaning unless he has a good command of English, in which case it is not likely that he would need the dictionary.

Another example is the case of an English student of Arabic who comes across the word : الربيع (Al-Rabee), he looks it up in 'Almawrid dictionary and finds :

الربيع : spring

but he cannot decide which of the senses of the word "spring" is the

the equivalent of الترييح .

In both examples meaning discrimination was necessary but the two dictionaries failed to provide it, and the dictionary users were lost. Unless meaning discrimination is provided systematically, the bilingual dictionary cannot be a dependable guide to proper equivalents and translation.

To solve this problem, the lexicographer should answer the following questions :

- (i) In which case does a polysemous source or target word require meaning discrimination?
- (ii) In which language should meaning discriminations be provided : in the source or the target language?
- (iii) How should meaning discrimination be best presented in the dictionary?

To answer the first two questions we have to adopt the classification of bilingual dictionaries outlined in this paper as a guideline. The necessity of meaning discrimination depends on the purpose of the dictionary, i.e. whether it is meant as an aid for comprehension or production, and whether it is intended for the speakers of the source or the target language.

If the dictionary is designed as an aid for production (for the speakers of the source language, of course,) then no meaning discrimination is necessary in the following two cases :

- (1) If the source word has one meaning for which the target language has one word of only one meaning. e.g.

Fr. mosque = E. mosque

- (2) If the source word has one meaning for which the target language has a polysemous word :

Fr. Tunisie = E. Tunis

But meaning discrimination is necessary in the following two cases :

(3) The source word is polysemous and for each of its meanings the target language has a separate word of one meaning. e.g.

Ar. عين (eyn) : (part of the body) eye; (of water) fountain.

(4) The source word is polysemous and for each of its meanings the target language has two or more polysemous words. e.g.

Ar. زوج (zowj) : (person) husband; (number) couple

If the dictionary is intended for comprehension only (for the speakers of the target language of course), no meaning discrimination is needed in the following two cases :

(5) The source word has one meaning for which the target language has one word of only one meaning.

(6) The source word is polysemous and for each of its senses the target language has one word on only one meaning.

But meaning discrimination is required in the following two cases :

(7) The source word has one meaning for which the target language has a polysemous word.

(8) The source word is polysemous and for each of its senses the target language has two or more polysemous words.

The language in which meaning discrimination is written should be the language of the speakers for whom the dictionary is intended.

To put these principles in a formula form, one can say :

1 in a dictionary for production :

$S^* = (s)T; (s) T$

$S^* = (st)T^*; (st)T$

2 in a dictionary for comprehension :

$S = (t) T^*$

$S^* = (ts)T^*; (ts)T^*$

In these formulas :

S = the source word.

s = the source language meaning discrimination presented in the source language.

T = the target word

t = the target language meaning discrimination presented in the target language.

* = polysemous

st = meaning discrimination common to the source and target words presented in the source language.

ts = meaning discrimination common to the source and target words presented in the target language.

To present meaning discrimination in a bilingual dictionary, there are several devices and the lexicographer should select the appropriate one(s) in each case. The most important ones are the following :

(a) punctuation : traditionally dictionaries separate synonyms or near synonyms by commas, and different meanings by semicolons. This method is of no help at all if it is used by itself where meaning discrimination is required.

(b) definitions : older dictionaries give long formal definitions to discriminate meanings of a polysemous word; nowadays these definitions are shortened. e.g. spring (a season of the year).

(c) synonyms : they can provide briefer meaning discriminations than definitions.

(d) illustrative examples : illustrative phrases or sentences may serve as another device of meaning discrimination. e.g.

source ... (a) source (d'une fleuve) ... (b) source, (origine) ...
The custom has its source in another country, usage a eu son
origine dans un autre pays ...

But illustrative examples as meaning discrimination is space consuming.
(e) parts of speech can sometimes discriminate the meanings of a polysemous entry word.

(f) context words or phrases : any word or phrase which gives only enough of the context in which a polysemous word is usually used may serve as a meaning discrimination.

For example : (i) the subject or type of subject, and the object or type of object, may discriminate the meanings of a verb; (ii) the noun or type of noun may serve as a context word to discriminate the adjective which qualifies it; (iii) the adjective or type of adjective may serve as a context word to discriminate the noun, and so on.

ABSTRACTSome Remarks on Sibawaihi's Contribution
to Phonetics

Muhammad Hasan Bakalla
Arabic Language Institute/College of Arts
University of Riyadh

مستخلص البحث

يهدف هذا البحث الى إبراز مساهمة العرب المسلمين الأوائل في الدراسات الصوتية، وبخاصة الصوتيات في كتاب سيبويه (القرن الثاني الهجري / الثامن الميلادي) . ويعد باب الإدغام (في نهاية الجزء الثاني من الكتاب) باباً في علم الأصوات العربية .

يدرس سيبويه في هذا الباب ، الأصوات العربية في الفصحى مشيراً الى بعض الأصوات في اللهجات العربية دون تحديد لماكنها أو قبائلها . ويصف فيه الأصوات بحسب مخرجها ومدارجها ويدل هذا البحث على ان سيبويه قد قام بتحليل الأصوات على أساس « الصفات المشتركة المميزة » لها DISTINCTIVE FEATURES ANALYSIS ويعتبر بهذا سابقاً بعدة قرون لمدرسة رومان يعقوبسن وتلامذته التي تنادى في العصر الحاضر باستخدام هذا النوع من التحليل الذي أصبح مبنياً على دراسات آلية في مختبر الصوتيات وأبحاث رياضية وفسيولوجية وفيزيائية وغيرها، ويناقش هذا البحث بعض الطرائق المنهجية التي استخدمها سيبويه في دراسته الصوتية ضمن اطار البحث اللغوي العام الذي حظى به كتابه الخالد الذي يستحق دراسات اعمق وادق لاجلاء أصالته وفوائده المتعددة في حقل الدراسات اللغوية العربية بخاصة والدراسات اللسانية العامة بعامة .

This paper aims to show the contribution of the Arabs and Muslims to the study of sounds (phonetics), and particularly the Arabic sounds in al-Kitāb of Sibawaihi. The Chapter on "al-Idgham" (Assimilation of Sounds) may be regarded as a chapter on the sounds of Arabic. Here, Sibawaihi studies mainly the sounds of Classical Arabic. He also refers to some 15 sounds of colloquial Arabic without a clear reference to the dialects in which they occur.

Sibawaihi describes the sounds according to their "place of articulation", and also in terms of their "manner of articulation." The paper attempts to advance the idea that Sibawaihi had anticipated the modern linguistic approach to the study of sounds according to "distinctive feature analysis" as developed by Roman Jakobson's school.

The paper also discusses some of the other phonetic issues dealt with by Sibawaihi and the phonetic methodology adopted by him, which are not only useful in Arabic phonetics but also to scholars and students of general phonetics.