
Basic Problems of Learner's Lexicography*

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Abstract: In general, learner's dictionaries suffer from the fact that lexicography has been treated as a subdiscipline of linguistics and not as an independent discipline and that, correspondingly, no serious efforts have been made to develop a general theory of learner's dictionaries within the general theory of lexicography. Such a theory must undoubtedly be developed on the basis of the theory of lexicographic functions. Foreign language learning is a complex process and the very concept of a learner is in no way unambiguous. Dictionaries can be conceived to assist the learner in different aspects of the language-learning process. Accordingly, at least four main functions of a learner's dictionary can be distinguished corresponding to the following user situations: text reception in the foreign language, text production in the foreign language, conscious study of the foreign-language lexis and conscious study of the foreign-language grammar. Learner's dictionaries are, thus, not to be considered a special type of dictionaries, but constitute a more general category including various types of learner's dictionaries according to their functions or combination of functions. The great challenge to learner's lexicography is to conceive and compile dictionaries that assist the learner in as many aspects of the language-learning process as possible.

Keywords: LEXICOGRAPHY, LEARNER'S LEXICOGRAPHY, LEARNER'S DICTIONARIES, GENERAL THEORY OF LEARNER'S LEXICOGRAPHY, LEXICOGRAPHIC FUNCTIONS, COMMUNICATION-ORIENTATED FUNCTIONS, KNOWLEDGE-ORIENTATED FUNCTIONS, FOREIGN-LANGUAGE TEXT RECEPTION, FOREIGN-LANGUAGE TEXT PRODUCTION, ASIMILATIONS OF THE FOREIGN-LANGUAGE SYSTEM, LEARNERS' CHARACTERISTICS, USER NEEDS, USER SITUATIONS, LEXICOGRAPHIC DATA, LEXICOGRAPHIC STRUCTURES

Opsomming: Basiese probleme van die aanleerdersleksikografie. Oor die algemeen ly aanleerderswoordeboeke onder die feit dat die leksikografie as 'n subdiscipline van die linguistiek behandel is en nie as 'n onafhanklike dissipline nie en dat, ooreenkomsdig, geen ernstige pogings aangewend is om 'n algemene teorie van aanleerderswoordeboeke binne die algemene teorie van die leksikografie te ontwikkel nie. So 'n teorie moet ongetwyfeld ontwikkel word met die teorie van leksikografiese funksies as basis. Die aanleer van 'n vreemde taal is 'n komplekse proses en selfs die konsep van 'n aanleerdeur is geensins duidelik nie. Woordeboeke kan bedink word om die aanleerdeur met verskillende aspekte van die taalaanleerproses te help. Gevolglik kan ten minste vier hooffunksies van 'n aanleerderswoordeboek, wat ooreenstem met die volgende gebruikerssituasies, onderskei word: teksresepsie in die vreemde taal, teksproduksie in die vreemde taal, bewuste studie van die leksis van die vreemde taal en bewuste studie van die grammatika van die vreemde taal. Aanleerderswoordeboeke moet dus nie as 'n besondere soort woordeboeke

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beskou word nie, maar vorm 'n meer algemene kategorie wat verskillende soorte aanleerderswoordeboeke volgens hul funksies of kombinasie van funksies insluit. Die groot uitdaging vir die aanleerdersleksikografie is om woordeboeke te bedink en te maak wat die aanleerdeur help met soveel aspekte van die taalaanleerproses as moontlik.

Sleutelwoorde: LEKSIKOGRAFIE, AANLEERDERSLEKSIKOGRAFIE, AANLEERDERSWOORDEBOEKE, ALGEMENE TEORIE VAN AANLEERDERSLEKSIKOGRAFIE, LEKSIKOGRAFIESE FUNKSIES, KOMMUNIKASIEGEORIËNTERDE FUNKSIES, KENNISGEORIËNTERDE FUNKSIES, VREEMDETAALTEKSRESEPSIE, VREEMDETAALTEKSPRODUKSIE, ASSIMILASIE VAN DIE VREEMDETAALSISTEEEM, AANLEERDERSEIENSKAPPE, GEBRUIKERSBEHOEFTES, GEBRUIKERSITUASIES, LEKSIKOGRAFIESE DATA, LEKSIKOGRAFIESE STRUKTURE

1. Introduction

In a world that is becoming ever more internationalised and where intercultural communication is of growing importance for anybody who does not want to be overtaken by this development, there is a growing need for different sorts of dictionaries that can support the necessary communication. Among the basic dictionaries needed are the so-called learner's dictionaries that support or at least are supposed to support the foreign-language learner in the whole process of studying, learning and assimilating a given foreign language. Although the number of learner's dictionaries is not superabundant compared to other types of dictionaries, it is, nevertheless, possible to find various such dictionaries or at least one such dictionary for all of the most important international languages and also for a growing number of languages with a more regional or local importance. However, the big and ever bigger growing interest in learner's dictionaries is first of all reflected in the comprehensive literature covering this special field of lexicography. With a few exceptions, e.g. Shcherba (1940), Zöfgen (1994) and Tarp (1999a), this literature is mainly dealing with special problems of specific dictionaries and suffers from a lack of a theoretical lexicographic approach. The fact is that no general theory of learner's dictionaries has been developed so far and that only very few attempts have been made to remedy this shortcoming. It goes without saying that both the theoretical literature and the lexicographic practice are seriously affected by this regrettable lack of a general theory, although it must be admitted that some of the dictionaries are far better than the corresponding "theoretical" literature. This article therefore calls for the need to develop a general theory of learner's lexicography and indicates some of the ways that can be followed in order to reach this goal. This is all done under the motto that there is nothing as practical as a good theory.

2. The concept of lexicographic theory

As mentioned above, the discussion in this article suggests that lexicographic theory — and especially the theory of learner's dictionaries — must be further developed. The first factor to be dealt with is, however, what is meant by theo-

ry. In fact, there are two competing ways of understanding lexicographic theory, the one contemplative and the other transformative (see Bergenholz and Tarp 2003). The contemplative theory is a result of the observation of actual existing dictionaries and their use. Its relation to practice is limited to the continuous study of still more dictionaries in order to examine if the theory is valid or has to be adjusted. On the contrary, the purpose of the transformative theory of lexicography is not only to gain a good understanding of existing dictionaries and their use, but also, and first of all, to influence the lexicographic practice by means of indications and guidelines for future dictionary conception and making. Its relation to practice is a relation of interaction. It does not only study the finished product but also the human activity of conceiving, planning and making dictionaries, an activity in which it is heavily engaged itself. The contemplative theory has made a number of important contributions to lexicography but it often tends to submerge itself in the definition of a huge number of items and structures that are relevant to a linguistic and not to a lexicographic approach to dictionaries, and which alienates many lexicographers from this theory. Hence, there is little doubt that the desired general theory of learner's dictionaries should be developed as an integrated part of the transformative theory of lexicography.

3. The relation between lexicography and linguistics

A major weakness in the theoretical literature dealing with learner's dictionaries is that the large majority of authors still regard lexicography as a subdiscipline of linguistics. They treat the problems of lexicography from the point of view of linguistics and, consequently, they do not see the need to develop an independent theory of lexicography and even less a theory of learner's lexicography. However, the fact that lexicography is considered an independent discipline with its own subject matter, i.e. dictionaries — and not language as in the case of linguistics — does not mean that there is no relation between lexicography and linguistics. According to the modern theory of dictionary functions (see Bergenholz and Tarp 2002, 2003, 2004a, 2004b and Tarp 2003a), lexicography has a big interdisciplinary vocation and, as such, it treats — or ought to treat — linguistics in the same way as it treats any other discipline, i.e. it utilises the results from these disciplines whenever they are needed in order to conceive high-quality utility products that meet the specific needs of specific groups of users in specific user situations. In order to do this, lexicography studies human activities with the purpose of detecting specific needs that can be satisfied by means of dictionaries. In the case of learner's dictionaries, it studies the language-learning process in order to determine when and how dictionaries can assist this process. This study embraces a thorough analysis of the learner as a potential dictionary user (the lexicographic concept of a learner), of the general circumstances of the language-learning process as such, of the specific user situations where dictionaries can provide assistance and, finally, of the specific complex of user needs that arise for each specific type of

users in each specific type of user situation. On this basis, it is possible to determine the various functions of learner's dictionaries. This is the aim of the following discussion.

4. The learner as a potential dictionary user

The functional theory of lexicography is a user-orientated theory and, as such, it considers it highly important to know the characteristics of the dictionary users in question, in this case foreign-language learners. In its study of these characteristics, lexicography has much in common with the branch of linguistics dedicated to the learning process, i.e. foreign-language didactics. However, the learner profile made by lexicography differs in many ways from that made by linguistics, as lexicography is only interested in those learners'/users' characteristics relevant for dictionaries. From the point of view of lexicography (and linguistics), a learner is a person in the process of learning a language not his/her native language. This concept, however, is a very broad one that covers a wide range of non-native speakers trying to learn a particular language. The following variables must, at least, be taken into account in order to make the concept less abstract and produce a more detailed profile of the potential dictionary user:

- (a) Proficiency level
- (b) Adult or child
- (c) Emigrant or other type of learner
- (d) "Joint" or separate culture
- (e) Level of general culture

(a) Language learning is a continuum where quantitative changes are transformed into qualitative changes. It is evident that this overall process can be subdivided into as many phases as necessary for each purpose. Linguistics usually distinguishes between three main levels: beginners, intermediate learners and advanced learners. This reduction of the number of proficiency levels is very convenient, but it is often based on schematic criteria such as the number of hours of instruction that do not contribute to a further understanding of the learner's special problems or needs. Wingate (2002), for example, defines an "intermediate learner" as a foreign-language student who has had more than 450 hours of instruction and an "advanced learner" as a student with more than 800 hours of instruction. Such a mechanical criterion makes it difficult to draw comparisons between Hong Kong learners (who are the subjects of Wingate's study) and learners who follow another educational system. It is, for instance, not the same to be 4 or 40 students in the classroom, to have much or little homework, to follow a study program that is teacher-orientated or one that is case-orientated outside the classroom and without the presence of the teacher, etc. And, apart from this, each and every student is different and develops his/her foreign-language skills in an individual way. Wingate herself illustrates

the problem. From a qualitative analysis based upon a think-aloud study of high verbal and low verbal "intermediate" Chinese students of German using two different types of German explanations — the so-called "new explanations" inspired by the principles of *Collins Cobuild English Dictionary* and the "traditional" explanations in *Langenscheidts Großwörterbuch Deutsch als Fremdsprache* (LGDAF) respectively — she (Wingate 2002: 209–210) concludes:

High verbal ability students are on the threshold of being able to use a monolingual dictionary in the style of the new definitions, which is linguistically not as difficult as the LGDAF, while the weaker students at this proficiency level are not yet ready to use even this more user-friendly type of monolingual dictionary.

The conclusion that Wingate (2002) draws here is that in terms of user needs for explanation of foreign-language words there is actually no fundamental difference between beginners and the majority whom she considers "intermediate" learners. This conclusion might be interesting from the point of view of language didactics that has to recommend a specific type of dictionary for students of a specific proficiency level. But from the point of view of lexicography, it is hardly relevant at all. What is interesting for lexicography are those qualitative changes in the user profile that might modify the user needs and the character of the corresponding lexicographic data. This question still has to be analysed and discussed more profoundly by lexicographers. But at this point, it is already possible to distinguish some nodal points of interest in the curve of the learner's growing proficiency level in the foreign language:

- (i) When the learner starts to think in the foreign language and produce some easy phrases directly in this language;
- (ii) When the learner reaches a level where he/she is able to understand foreign-language explanations based on a reduced vocabulary of, for instance, 2 000–3 000 words;
- (iii) When the learner reaches a level where he/she mainly thinks and produces phrases directly in the foreign language, i.e. without a written or mental outline in the mother tongue; and
- (iv) When the learner reaches a level where he/she is capable of understanding complex explanations in the foreign language.

To each of these nodal points in the language-learning process correspond different — or the possibility of different — lexicographic solutions. When the learner starts to produce phrases directly in the foreign language, it is, for instance, possible (or necessary) to conceive a dictionary based on a list of foreign-language words in order to assist him/her with this kind of text production (see Tarp 2004). When the learner is able to understand foreign-language explanations based on a controlled vocabulary, it is possible to conceive dictionaries using this kind of explanations in order to assist him/her with text reception (see Tarp 2003b), etc. These considerations make it both possible and

necessary to draw a distinction between at least three different levels of language learning: beginners, experienced learners and advanced learners:

- (i) *Beginners* are those who are taking the first steps into the foreign language and trying to assimilate the basic vocabulary and grammar.
- (ii) *Experienced learners* are those who have mastered the basic vocabulary and the most important grammatical rules and are beginning to think and express themselves relatively freely in the foreign language, but sometimes have to pass through their mother tongue in order to produce more complex phrases.
- (iii) *Advanced learners* are those who have acquired a considerable active and passive vocabulary, have assimilated the general grammar of the foreign language and are thinking and expressing themselves freely in this language, although they are still not "native".

There is hardly any doubt that the lexicographic concepts of "experienced learner" and "advanced learner" presuppose a relatively higher proficiency level than the corresponding linguistic concepts of "intermediate learner" and "advanced learner", as the two sets of concepts are interpreted above. Furthermore, future research might modify the lexicographic three-step graduation and even add further in-between levels. But if the aim is to improve learner's dictionaries, this should, as mentioned, always be done in the light of lexicography and not from the point of view of linguistics.

- (b) The proficiency level is by far the most important factor to distinguish between different learner characteristics, but there are also other factors that should be taken into account before conceiving or reviewing a dictionary. One of these is the distinction between learners who are adults and children respectively. A child is, for instance, still in the process of learning his/her mother tongue and reaching the adults' level of general culture and instruction and is supposed to have little experience in dictionary use. The learner's dictionary should be adapted to this reality and this would, among other things, imply that the selected vocabulary could be more reduced, that the definitions and the metalanguage should be easier, that explanations of some words would be needed instead of equivalents, that the lexicographic structures and layout should be simpler, etc.
- (c) Another relevant distinction is between what could be called "normal" learners on the one hand and immigrants and refugees on the other. This distinction is particularly important for countries where the consequences of neo-liberal globalisation during the last decades has resulted in a growing influx of people who have flown from war, political repression, hunger or disagreeable social conditions in general. These people have a variety of backgrounds and are, in principle, not especially interested in learning the language spoken in the country in question, but they have to as it is part of their new life. Learning the new language is part of the integration process which includes learning

about the country's culture and the institutions and laws relevant for them. The authors of learner's dictionaries designed for immigrants and refugees must be aware of their special lexicographic needs which include, among others, the selection and explanation of words referring to the relevant laws, institutions and cultural phenomena. In some countries, e.g. the Scandinavian countries, a whole new branch of learner's dictionaries, the so-called immigrant's dictionaries, has actually developed during the last decades (see, e.g. Bergenholtz and Malmgren 1999). With a few exceptions such as the Swedish *Lexin* (see Gellerstam 1999), most of these dictionaries are noted for their poor lexicographic quality and it is an obvious task for professionally trained lexicographers to intervene in this field in order to assist people who have already suffered enough.

(d) The compilers of a learner's dictionary must also have at least some knowledge about the target group's cultural background and whether this is close to or far from the culture related to the language that is being learned. The eleven official languages in a multilingual country like South Africa correspond, for instance, to different cultures but have, at the same time, many common cultural references. Such a reality must be reflected in learner's dictionaries. If the learner's culture is different from that of the foreign-language community, notes on cultures should be added and explanations written in such a way that they do not presuppose a cultural knowledge which first has to be acquired together with the language learning. One of the many problems of the famous British learner's dictionaries is, for example, that they are compiled for foreign-language learners in general without taking the very different cultural backgrounds of the target users into account. In many ways, the explanations in these dictionaries are very "British". This might not constitute a great problem for users coming from countries culturally and geographically close to Britain, but for learners with a completely different cultural background it sometimes creates insurmountable problems.

(e) A last factor that must be taken into account in order to generate a user profile for a concrete dictionary is the learners' general cultural level. This aspect has, at least, consequences for the lemma selection, the character of the explanations, the possible cultural notes, the metalanguage and symbols and the structures of the dictionary. There is no reason to take a too high cultural level for granted as it will only make the users' access to the relevant data difficult or even impossible. The German learner's dictionary *De Gruyter Wörterbuch Deutsch als Fremdsprache* is an example of a dictionary that uses a condensed and codified metalanguage which presupposes a level of general linguistic knowledge the average learner cannot be expected to possess (see Tarp 2002).

5. General circumstances of foreign-language learning

The user characteristics treated in the previous section are all important in order to construct a reliable user profile for any dictionary. However, apart

from these characteristics, there are also a number of user-related factors that are not user characteristics as such. These factors have to do with the general circumstances in which the language-learning process takes place and are, as such, relevant in order to determine the user needs and the corresponding lexicographic data to be included in the dictionary. These circumstances are:

- (a) Conscious or spontaneous learning
- (b) Learning inside or outside the language area
- (c) Learning being exposed or not exposed to the mother tongue
- (d) Learning with or without contrastive methodology
- (e) Learning related or not related to a specific textbook or didactic system
- (f) Learning related or not related to a particular topic (economy, history, culture etc.)

(a) The distinction between conscious and spontaneous foreign-language learning was originally introduced by Shcherba in order to distinguish between the language-learning situation in Russia before and after the October Revolution in 1917 (see Mikkelsen 1992). Conscious learning is supposed to take place either as an individually planned and conducted study or related to a specific didactic system or text book. Spontaneous learning, on the other hand, takes place without these characteristics and is, as such, supposed to be more unsystematic. For many learners, the two processes might be interwoven with periods of conscious study followed by periods of spontaneous learning. Nevertheless, the characteristics of the two different processes have a number of important consequences for the design of learner's dictionaries. By definition, the only user situations where the spontaneous learner might need the assistance of a dictionary are text reception and text production (in their 007-inspired style, the British call them "decoding" and "encoding"). The conscious learner, on the other hand, might need assistance in other types of user situations as conscious study does not only consist of text production and text reception but also of other processes that are normally not supported by the existing learner's dictionaries and which constitute a big theoretical challenge for lexicography. The spontaneous learner might only consult the dictionary sporadically and cannot be expected to remember complex structures, symbols and abbreviations in the dictionary, whereas the conscious learner who might consult the dictionary several times every day would probably grow familiar with such complexities, and so on.

(b) A second general circumstance of foreign-language learning that has serious consequences for learner's dictionaries is the geographical situation in which the learning takes place, i.e. inside or outside the area where the language in question is spoken. If it takes place outside the area — e.g. studying German in Hong Kong, French in South Africa or English in South America — it is much easier to know and control the vocabulary to which learners are exposed. On the contrary, if it takes place inside the language area, learners

would be exposed to thousands of words every day, on the streets, in shopping centres, restaurants, through television and radio channels, etc. If lexicographers want to satisfy learners' multiple and complex needs in this last case, they would have to select a large number of lemmata, even for dictionaries for text reception at beginner's level, whereas this might not be necessary for learners studying outside the language area.

(c) A third general circumstance of foreign-language learning is related to the previous one, but quite the opposite, as it has to do with exposure to the mother tongue during the learning process. Such an exposure may have a number of negative consequences and can be observed among learners both outside and inside the foreign-language area. The discussion, however, is especially important in multilingual countries like South Africa where language learning frequently takes place in daily contact with the "foreign" language in question, although the learner in most cases will not only use this language but also his/her mother tongue, e.g. in the family, among the friends, etc. This is probably one of the more important explanations of the undesired mixed bilingualism that can be observed. Therefore, an effort should also be made to promote a conscious foreign-language study instead of spontaneous learning. Learner's dictionaries cannot solve these problems, but they can make a contribution in the right direction and support efforts to avoid mixed bilingualism by concentrating on the foreign-language system instead of a bilingual comparison between mother tongue and foreign language. This has, above all, relevance to some strategic decisions to be taken when planning a dictionary (see Gouws 1993, 1996, 2000).

(d) Lexicography is not fanatic or extremist. Lexicographers might have their personal opinions, but the purpose of dictionaries is first of all to assist users however inconveniently these might behave. One of the questions discussed for years among linguists and language teachers is whether language teaching should use the contrastive methodology or not. There are different opinions although the majority are strongly against this methodology. Many lexicographers are obsessed with this discussion and many recommendations are to be found in the theoretical literature. However sympathetic their opinions might be, it is, nevertheless, not the task of lexicography to make such recommendations; it is the task of linguistics and language didactics. The task of lexicography is — or should always be — to study the real language-learning process followed by intended users and to support this process by means of dictionaries. This implies that if the target group uses the contrastive method of language learning, lexicography must assist them nevertheless, following the well-known cliché from many Hollywood films: "Don't take it personal, it's just a job."

(e) Frequently, foreign-language learning is related to a specific textbook or didactic system during a certain period of the overall learning process. If a learner's dictionary is conceived to cover the users' needs during this specific period, then the vocabulary of the dictionary should be adapted to that of the

textbook or didactic system. It could, for example, as has already been done in a number of cases, be placed in the back matter of the textbook.

(f) In countries with a multilingual composition of school children in the class rooms, the learning of a second — "foreign" — language is sometimes combined with the learning of a specific topic, e.g. dialects, history or geography. In such cases, the learner's dictionary might include "informations d'ordre dialectal, historique et géographique" (Mabika Mbokou 2001: 217).

6. User situations

The learning of a foreign language is a complex process. Very schematically, it demands first of all reception of oral and written texts. Then it presupposes assimilation of what Shcherba called the foreign-language system, i.e. its lexis and grammar. And finally, it includes the training of the capacity to produce texts in this language, a process primarily carried out on the basis of the assimilation of the foreign-language system. These three partial processes — text reception, assimilation of the language system and text production — should, however, not be viewed mechanically as three stages where one stage necessarily precedes the others. On the contrary, they are in mutual interaction and in a certain way take place simultaneously, as one process always conditions the others.

During the reception phase, words are picked up and learned incidentally, and similarly, bit by bit, the lexical and grammatical structures of the language. The reception and understanding of still more complex texts presuppose the gradual assimilation of the foreign-language system as such. During the production phase, the acquired vocabulary is activated and confirmed and the same with the acquired general knowledge of the lexical and grammatical structures. Text production presupposes, up to a certain point, knowledge of the foreign-language system, but it can also be a means to assimilate this system if it is based on the consultation of outside sources, e.g. dictionaries. As regards assimilation of the foreign-language system, this is both a result — or by-product — of text reception and text production and a precondition for such a reception and production at a still higher level. The lexical and grammatical structures of the foreign language can, consequently, be assimilated in a natural or "passive" way through the processing (reception and production) of a large number of texts in this language. These structures can, however, also be assimilated in an "active" way through conscious study, as has been mentioned in the previous section.

Text production and text reception (encoding and decoding) have been discussed extensively in theoretical literature on lexicography, although there is still much research to be done in this respect. The study or conscious assimilation of the foreign-language system has, on the contrary, only been treated sporadically, in passing practically, in this literature, e.g. in Hausmann (1977), Mikkelsen (1992) and Tarp (1999a). As already indicated in the previous sec-

tion, this conscious study constitutes a big theoretical challenge for lexicography. It embraces a separate, or to be more precise, two separate user situations not analysed so far, i.e. conscious study of the foreign-language grammatical system and conscious study of the foreign-language lexical system. The decisive question for lexicographic theory and practice is whether dictionaries can assist these two user situations — and if they can, how and to what degree. The hypothesis of this article is that dictionaries actually can provide assistance to learners engaged in such a conscious study. This gives a total of four user situations relevant for learner's lexicography:

- text reception in the foreign language,
- text production in the foreign language,
- conscious study of the foreign-language grammatical system, and
- conscious study of the foreign-language lexical system.

Consequently, in order to prove the above hypothesis, it is necessary to analyse if there are any user needs related to the two user situations that can actually be assisted by means of lexicographic data. This is the aim in the following sections.

7. User needs

User needs in terms of text reception and production have been thoroughly treated by Tarp (2004), and so have the corresponding lexicographic data. It has been clearly demonstrated that dictionaries can to a large extent satisfy the user needs in this respect. This and the following section will consequently concentrate on problems related to the conscious study of the foreign-language system. The first aspect to be noted is that the two component parts of this system, the lexis and the grammar, do not exist independently but are mutually interwoven. The lexis cannot be expressed without the grammar, and the grammar does not exist outside the lexis. However, through the method of abstraction, it is quite possible to isolate each of the two concepts and make them subject to a conscious study and teaching.

As for the assimilation of the lexis, it is not enough to learn the vocabulary and the meaning of its words and their pragmatic and stylistic properties. At least as important are the semantic fields of and the semantic relations between the words. Although few authors emphasise this last aspect, a word has not been learned until its semantic relations to other words have been assimilated as well (see Gouws 1989). It is in mutual confrontation with other words that the true meaning of a word is displayed. And this implies knowledge about semantic fields, synonymy, antonymy, hyperonymy, hyponymy, etc. Hence, in order to perform a conscious study of the lexis of a given language the learner needs information about:

- vocabulary,
- meaning of individual words,
- pragmatic and stylistic properties of individual words, and
- semantic relations between words.

As regards the assimilation of the grammatical system of a given language, the learner first of all needs information about:

- inflectional morphology,
- word formation (affixes, compounds and derivatives),
- syntax, and
- some formal rules of oral and written texts such as pronunciation, orthography, hyphenation and punctuation.

However, for all these categories — with the possible exception of punctuation — it is necessary to distinguish between at least two different levels of knowledge, i.e. the universal (general) and the individual, and sometimes also a further in-between level, the particular, mediating between these two by being universal in relation to the individual and individual in relation to the universal. This at least is the case in the majority of Indo-European languages. With respect to inflectional morphology it is, for example, not sufficient to learn the general principles of the inflection of nouns, verbs and adjectives, it is also necessary to know how these principles are applied at the individual level of each word, i.e. whether the inflectional pattern is regular or irregular and to what extent. The same applies to word formation. In a number of Germanic languages, compounds with nouns can, for instance, be made adding nothing, an "s" or even the medieval "e" to the noun. The general rules can be learnt but even native speakers would often be in doubt. As for syntax, each language has its general principles of word combinations whereas individual words of a language frequently display only part of these combinations and sometimes also some that have not been foreseen at the general level and which are often related to collocations, idioms and proverbs where atavistic forms may be found. And as for the formal rules of oral and written texts, in some languages it may occur that some words are not pronounced, spelled or hyphenated according to the general rules, a phenomenon often related to foreign words co-opted by the language.

It goes without saying that in order to assimilate the foreign-language grammar the learner must not only achieve an abstract knowledge of the system, but first of all, also a concrete knowledge, which is, in effect, the highest form of knowledge.

8. Lexicographic assistance: data and structures (1)

In order to look for lexicographic data that can meet the above-mentioned user needs in terms of a conscious study of the foreign-language lexis and grammar,

the first step must be to study the existing dictionaries and find out whether they already provide data that can, at least partially, satisfy the relevant needs. The next step can then be to generalise these experiences and, on that basis, develop new solutions.

As regards lexicographic data that can assist the *assimilation of the foreign-language lexis*, this refers — as mentioned in the previous section — to data on vocabulary, meaning, pragmatic and stylistic properties of individual words and semantic relations to other words. As for the first type of data, it is obvious that existing dictionaries already provide data on foreign-language vocabulary. However, the main problem in a learner's dictionary is not the vocabulary as such, but to gain access to it as the user cannot be expected to read an alphabetically organised dictionary from one end to the other in order to increase his/her foreign-language vocabulary. Generally, there are two main ways of access: through the mother tongue and through the foreign language in question. The first is normally followed by learners at a beginner's level and, to a lesser degree, at an intermediate proficiency level. This will be their procedure when they have absolutely no other way of accessing the needed word or semantic field in the foreign language. The second way of access is followed by advanced learners and, to a larger and larger extent, by intermediate learners as they improve their foreign-language skills. The precondition for this procedure is that they already have access — through their knowledge of specific words — to the corresponding semantic fields from which they can continue increasing their foreign-language vocabulary. It is obvious that the two ways of access call for different lexicographic solutions. The first requires a bilingual word list or index, which can lead the user to the foreign-language words in question. Bilingual word lists are already available in existing dictionaries. Moreover, Tarp (2004) has presented a detailed proposal for a bilingual index especially conceived for foreign-language learners. It is therefore clear that there already exist lexicographic solutions that permit this first way of access to foreign-language vocabulary. The second way of access requires, on the other hand, solutions that link known foreign-language words with semantically and grammatically related words that may contribute to enrich the learner's foreign-language vocabulary. Several solutions of this sort can be found in existing dictionaries although they may have been developed for other specific purposes:

- (a) References from individual articles to other individual articles where semantically and grammatically related words are treated.
- (b) References from individual articles to special sections where related words are treated in a systematic way. Such sections can be directly attached to individual articles (synopsis articles) or they can be integrated in the dictionary as middle matter or outside matter.
- (c) Systematically arranged dictionaries with an alphabetic index.

There are many examples of type (a) in existing dictionaries, although the majority of these are not learner's dictionaries, and this seems to be the most frequent of the three types.

As for the solutions of type (b), the *Cambridge International Dictionary of English* constitutes an example of a learner's dictionary that uses references to synopsis articles, e.g. from the lemma *button* to the section "Dressing and undressing", which is attached to the lemma *dress*. Here the user finds illustrations and explanations of various nouns and, especially, verbs related to the process of dressing and undressing. Macmillan's *English Dictionary for Advanced Learners* also contains articles with special sections where synonymous words are explained, although there are no references to these sections from other articles in the dictionary.

famous [...]

- 1 if someone or something is famous, a lot of people know their name or have heard about them: *He dreamed of becoming a famous footballer.* [...]
- 2 old-fashioned very good: *a famous victory* [...]

Other ways of saying famous

- well-known** fairly famous: *a well-known local reporter*
- legendary** very famous and greatly admired: *Laurel and Hardy, the legendary comedy duo*
- eminent** famous, and respected for their achievements, for example in science or academic work: *Professor Graham is an eminent brain surgeon*
- notorious** famous for being a bad person or a criminal: *a notorious murderer / drugs baron / gang leader*
- celebrity** someone who is famous and often talked about, especially an entertainer or sports player: *a magazine that shows photos of celebrities' homes*
- star** a popular actor, musician, entertainer, or sports player who is very famous and successful: *a movie / football star*

Example 1: Dictionary article and attached section from Macmillan (2002)

This dictionary article provides a good example of an article that makes it possible for the user who accesses the lemma *famous* to increase his/her English vocabulary through a conscious study of the attached section. The usefulness of the dictionary is, however, limited by the fact that it only includes a few articles of this sort and that no references are given to these enlarged articles. The *Oxford Advanced Learner's Dictionary* and the *Longman Dictionary of Contemporary English* constitute examples of learner's dictionaries where the user may find references from individual articles to special sections incorporated in the central word list as middle matter whereas the Swedish Lexin and the *De Gruyter Wörterbuch Deutsch als Fremdsprache* incorporate the same kind of sections in the

back matter. In the first three of these dictionaries, illustrations are used to support the systematic presentation of the semantic fields.

As for solutions of type (c), the only learner's dictionary of such a type known to the author of this article is the famous *Longman Lexicon of Contemporary English*. This dictionary contains a large number of semantic fields structured in a systematic way and a monolingual index giving access to these fields. One example of such a semantic field is «K107» that covers words related to winning, losing, etc. in terms of sport:

K107 verbs: winning and losing, etc
[ALSO → C280-82]

- win** 1 [...] to be the best or first in (a contest): *He won the race. Who won? 2 [...] a* to gain (esp a prize): *He won a prize/cup/shield/a hundred pounds. b* to gain (the stated place) in a contest: *He won first place in the competition. 3 [...] to gain by effort or ability: I can't win his friendship, though I've tried. By her hard work she won a place for herself on the school team.*
- beat** [...] (esp in sports, games) to do better than (another): *He beat her at tennis. She beat him (in) running to the end of the road. (fig) This problem beats me.*
- lose** [...] not to win: *He lost the race. Did he win or lose?*
- defeat** [...] to beat; win a victory over (a person or group): *Our team defeated theirs.*
- stump** [...] to be too difficult for: *I don't know the answer to that question; I'm stumped.*
- tie** [...] to be equal to an opponent or his or her result in a competition: *He/They tied for second place in the game.*
- draw** [...] to end (a game etc) without either side winning: *They drew (the game) 5 points to 5 (= 5 all). We've had several drawn matches this year.*
- result in** [...] to have as a result; cause: *The game resulted in a win for our side.*

Example 2: Semantic field from Longman (1981)

The structure and presentation of this semantic field are similar to those of the field shown in example 1. Both enable the user to access and assimilate semantically related words. However, as Macmillan's *English Dictionary for Advanced Learners* only includes a few fields of this type whereas Longman covers a total of 15 000 systematically organised words, the usefulness of the latter is, consequently, far greater in terms of lexicographic assistance for increasing the vocabulary.

Word meaning and pragmatic and stylistic properties of individual words

constitute the second and third type of data needed to assist the assimilation of the foreign-language lexis. In this respect, it is evident that existing learner's dictionaries written for the purpose of text reception or text production already furnish this sort of data. An example of this is *Collins Cobuild New Student's Dictionary*:

consider [...] [1] VERB If you **consider** a person or thing to be something, this is your opinion of them.
I consider him a coward... Others consider the move premature... He considers that this is the worst recession this century. [2] VERB If you **consider** something, you think about it carefully. *You do have to consider the feelings of those around you. [...]*

USAGE Note that when you are using the verb **consider** with a **that** clause in order to state a negative opinion or belief, you normally make **consider** negative, rather than the verb in the **that** clause. For instance, it is more usual to say '*I don't consider that you kept your promise*' than '*I consider that you didn't keep your promise*'. The same pattern applies to other verbs with a similar meaning, such as believe, suppose, and think. *He didn't believe she could do it ... I don't suppose he ever saw it... I don't think he saw me.*

Example 3: Dictionary article and corresponding note on usage from Co-build (2002)

Although a detailed research might show that these data or their presentation have to be somewhat modified in order to fully assist the user with the assimilation of the foreign-language lexis, at a general level it is nevertheless a fact that lexicographic practice has already found solutions providing for the above components of this particular function.

The fourth kind of data needed to assist the assimilation of the foreign-language lexis are those conceived to expose the semantic relations between words. However, as the above discussion of the procedure to increase the foreign-language vocabulary indicated, ways of access following the semantic relations between words, various methods to expose such relations have already been shown. What should be added here is that learner's dictionaries, at least for advanced learners, should not only provide synonyms, antonyms, etc. to single words but also to collocations, idioms and proverbs as Jónsson (1999) has pointed out. Jónsson himself has proposed a solution for this problem that includes an index leading the user to a systematic presentation of "phrases" (see Jónsson 2003) — a solution resembling the solution given in example 2.

To summarise: The above discussion has proven that dictionaries are perfectly capable of assisting the learner with the assimilation of the foreign-lan-

guage lexis. It has also been shown that if this was the only function of the dictionary, the best solution would probably be a systematically organised dictionary like the *Longman Lexicon of Contemporary English*. However, the discussion also indicated other solutions that could—at least partially—provide for this function if it, for one reason or other, had to be combined with other lexicographic functions. This article is not the place to go into details regarding this problem, but it should be noted that once the data are made available, the point at issue is an appropriate data distribution structure and a corresponding system of references that can guide the user to the relevant data. Although a long search path is not as user-friendly as a short one, it is nevertheless a way to solve a complex problem and provide assistance to the user in question.

9. Lexicographic assistance: data and structures (2)

The lexicographic data needed in order to assist the user with the *assimilation of the foreign-language grammar* embrace—as mentioned in section 7—data on inflectional morphology, word formation, syntax and formal rules of oral and written texts. However, the question immediately arises why it is altogether necessary to discuss the assimilation of the foreign-language grammar in relation to learner's dictionaries. There are already tools, e.g. grammars, especially conceived to assist or, at least partially assist, the learner in this respect. The answer has to do with the schism actually existing between grammars and dictionaries (see for instance Bergenholz and Mugdan 1985). Grammars first of all deal with the universal grammatical rules of a given language and although they normally provide a number of individual examples in order to illustrate the general system, they are nevertheless not able to deal with all individual expressions of a universal rule. The problem is especially great when the general pattern does not apply completely at the individual level of each word, for instance in the case of regular and irregular inflectional morphology. Dictionaries, on the other hand, have the capacity, at least theoretically, to deal with all individual expressions, i.e. words and their grammatical properties. However, until now they have not been able to establish the desired bridge to the universal system combining the data included in the dictionary articles with the data located in the grammar or, to put it differently, combining the information retrieved from the dictionary articles with the information retrieved from the grammar. Bergenholz (1984) was very much aware of this problem and suggested the conception of special grammars to be incorporated as independent component parts in dictionaries—a solution that can be found in various dictionaries (see also Mugdan 1989b). In many of these dictionaries, however, the result is only partial or formal as the schism between the universal and the individual frequently has been reproduced at the level of each dictionary. The solution to this problem is not only the conception of an advanced system of references but also the incorporation of data that can mediate between the two extremes.

Inflectional morphology is perhaps the most interesting area in this respect because a number of dictionaries have already conceived lexicographic solutions in terms of text production or text reception, which can also provide assistance to the assimilation of the foreign-language grammar. In general, inflectional paradigms of languages such as English, Afrikaans or Danish do not constitute a big lexicographic challenge. There are few inflected forms of nouns, verbs and adjectives and, in practice, all the forms, or at least all irregular forms, can easily be presented in individual dictionary articles without creating a too complex structure. This presentation can then be combined with a presentation of the general inflectional patterns in a special dictionary grammar as has already been done in several dictionaries. Although a number of learner's dictionaries for these languages have still not come up with a convincing solution — as Gouws and Tarp (2004) have shown for Afrikaans — it is far more interesting and relevant to discuss the problems related to languages such as German, Dutch, Russian, Icelandic, Italian, Portuguese, Spanish, etc., which all have a considerable number of inflected forms and where other lexicographic solutions must be found (see Mugdan 1989a).

Spanish verbs, which have up to 58 relevant forms to be treated, can be taken as an example. A recently published dictionary, Spansk–dansk erhvervsordbog, which is no learner's dictionary, has provided a solution that, nevertheless, could be used as a paradigm for Spanish learner's dictionaries. In a separate dictionary grammar, it provides the three regular inflectional patterns of Spanish verbs, a list of 16 slightly irregular inflectional patterns common to a large number of verbs and, finally, a list of completely irregular verbs. In the list with irregular inflectional patterns and the one with completely irregular verbs, only the irregular tenses are exposed, whereas the user's guide instructs the user to consult one of the three regular inflectional patterns for assistance when he/she has any problems with the remaining tenses. Moreover, all the regular and irregular inflectional patterns are illustrated by means of concrete words and, in this way, a relation is established between the universal and the individual, although only for a very limited number of words. In the individual dictionary articles, on the other hand, the verbs are treated in three different ways. As regards the regular verbs there is no data whatsoever on the inflectional pattern and, according to the instructions in the user's guide, this should be interpreted as an implicit reference to the regular inflectional paradigm presented in the back matter as part of the dictionary grammar. In the articles with completely irregular verbs, an explicit reference is provided to the list of irregular verbs in the dictionary grammar. And in the articles with verbs belonging to one of the 16 groups of irregular inflectional patterns common to a number of verbs, a "minirule" is provided:

complacer VB [c → zc foran a, o] [...]

Example 4: Dictionary article from Spansk–dansk erhvervsordbog (2003)

The minirule [c → zc foran a, o] indicates that *c* becomes *zc* before *a* and *o*. If the user does not know how to interpret this rule, it is at the same time a reference

to the dictionary grammar where he/she can find the following explanation and presentation of the inflectional pattern to which the verb *complacer* belongs:

| §15. [c → zc foran a, o] | | |
|--|-------------------|------------------|
| i verber på -acer, -ecer, -ocer og -ucir ændres c til zc foran a og o eksempel: conocer | | |
| <i>Præsens</i> | <i>Præsens</i> | <i>Imperativ</i> |
| <i>indikativ</i> | <i>konjunktiv</i> | |
| 1. conozco | 1. conozca | |
| 2. conocea | 2. conozcas | 2. conoce |
| 3. conoce | 3. conozca | 3. conoza |
| 1. conocemos | 1. conozcamos | 1. conozcamos |
| 2. conocéis | 2. conozcáis | 2. conoced |
| 3. conocen | 3. conozcan | 3. conoza |

Example 5: Excerpt from the dictionary grammar in Spansk–dansk erhvervsordbog (2003)

In this paragraph, it is explained that the minirule [c → zc foran a, o] is valid for verbs terminating in *-acer*, *-ecer*, *-ocer* and *-ucir*, and it is also explained how this rule should be interpreted. The verb *conocer* is then used to illustrate the tenses and persons where this pattern is applicable. For the remaining tenses, an implicit reference is once more given to the list of regular verbs. In this way, the minirule mediates between the individual verb and the partially irregular inflectional pattern whereas the latter mediates between the minirule and the universal pattern for the inflection of Spanish verbs. With the above data and structures it is quite possible to use a dictionary in order to enhance one's knowledge of the foreign-language grammar in terms of inflection.

Word formation, which is the second component in the assimilation of the foreign-language grammar, embraces affixes, compounds and derivatives. The problem with regard to this varies from language to language and has been discussed in detail by Bergenholz (2000), among others. In a language like Afrikaans, the use of diminutives is very frequent and this has also been reflected in some learner's dictionaries, e.g. *Basiswoordeboek van Afrikaans*:

oester (oesters; oestertjie) nw. 'n Oester is 'n eetbare skulpdier met een plat en een hol skulp. [...]

Example 6: Dictionary article from Basiswoordeboek (1994)

In this article as in many others in Basiswoordeboek, the diminutive form *oestertjie* is provided immediately after the lemma. This is important in order to assist the user in understanding the lemma and expose the different ways it can be used. However, nowhere in the dictionary, neither in the word list nor in the outside matter, the user will find any introduction to the use of affixes and diminutives in Afrikaans and even less to the general meaning of the diminu-

tive *-tje*. Therefore and because of the lack of mediations, the dictionary does not help the user to move from the individual to the universal, i.e. from the individual word to the universal system, and the conclusion is, accordingly, that a dictionary like Basiswoordeboek cannot in this respect be used to assist the assimilation of the language.

The Madagascan–German Rakibolana Malagasy–Alema provides another type of solution. This dictionary includes a Madagascan and a German grammar, written in both languages, and here the user will find, among much other information, a short introduction to the general use of affixes in Madagascan. At the same time, the most important affixes are selected as independent lemmata in the word list and then explained:

hatra *ppk.* Präfix, das an Lokaladverbien angefügt wird; es drückt den Endpunkt einer örtlichen Strecke aus, z.B. *Handeha hatrery aho* bis dahin/dorthin *Tovona Atavone ny mpamaritra milaza toerana ilazana faritra tratarina*.

Example 7: Dictionary article from Rakibolana Malagasy–Alema (1991)

In complicated cases, the explanation is even enhanced with a reference to the dictionary grammar, as is the case with the verbal morpheme *-a*:

-a Verbalmorphem, das einem Wortstamm beigefügt wird, es dient 1) zur Bildung der agissiven Verben, z.B. *a-daboka* → § 1.5.4; 2) zur Bildung der instrumentalen Verben, z.B. *a-haratra* → § 1.5.6.

Example 8: Dictionary article from Rakibolana Malagasy–Alema (1991)

Another dictionary, Duden (1985), which has the subtitle "Wortbildung und Wortschatz" (Word Formation and Vocabulary) and is presented as a "Lernwörterbuch" (learning dictionary), includes a section in the front matter where the user can find a list of all the affixes and affixoids treated and explained in the lemma list. In all these ways, the user gets an easy overview of the affixes and affixoids and a general introduction to their meaning and use in German.

The above method can also be used to treat compounds from both the universal and the individual point of view. Many dictionaries already contain and treat compounds in various ways. In order to solve the problems relevant to this article, a possibility would be to conceive a special dictionary grammar where the universal rules of compound words are explained and then, in all the relevant articles, concrete examples, minirules and even references to the grammar are provided as in the following proposal for a Danish dictionary:

barn SUB (et; -et, børn, børnene) *child* [...]
 -barn (§ 76.1) adoptivbarn, enebarn, spædbarn
 barn- (§ 76.2) barndom, barnløs
 barns- (§ 76.3) barnsben

barne- (§ 76.4) barnebarn, barnedåb, barnegråd,
barnevogn
børne- (§ 76.5) børnehave, børnehjem, børnesang

Example 9: Proposal for the treatment of compounds in a dictionary article

First the minirules are provided (*-barn*, *barn-*, *barns-*, *barne-* and *børne-*), then the references to the relevant paragraphs in the dictionary grammar and, finally, the individual examples of how to apply the minirule. The choice could, of course, have been made that references should only be provided in more complicated cases, i.e. *barne-* and *børne-*. Nevertheless, the above proposal once more establishes a relation between the individual and the universal through a number of mediations, thus showing that dictionaries can also be designed to assimilate the foreign-language grammar in terms of forming compounds.

As regards derivatives, this problem has been thoroughly discussed by Bergenholz (2000) who also makes a number of suggestions that can be adapted to the purpose of this article. First of all, the problematic of derivatives should be briefly treated in the dictionary grammar, as is, for instance, done in Rakibolana Malagasy–Alema (1991). Then all the derivatives — or at least all the relevant ones — should be selected as independent lemmata with a system of explicit or implicit references between them (or between the most important of them):

exclude VERB [...] → excluding PREP; exclusion
NOUN; exclusive ADJ; exclusivity NOUN
excluding PREP [...] → exclude VERB
exclusion NOUN [...] → exclude VERB
exclusive ADJ [...] → exclude VERB; exclusivity NOUN
exclusivity NOUN [...] → exclude VERB; exclusive
NOUN

Example 10: Proposal for the treatment of derivatives in dictionary articles

It is obvious that explicit references could also be made to the corresponding paragraphs in the dictionary grammar, if this were considered necessary. Nevertheless, the above proposal shows that dictionaries can also provide for the assimilation of the grammar of derivatives. It should moreover be noted that the above data — just as the data on affixes and compounds — also support the assimilation of the foreign-language vocabulary and thereby indicate that it may be possible to integrate the two functions.

Syntax, together with inflectional morphology, undoubtedly constitute the most important and complex part of the grammar of a given language. If one for instance consults the Big Five English learner's dictionaries — Oxford (2000), Cambridge (1996), Longman (1995), Cobuild (2001, 2002) and Macmillan (2002) — it emerges that different methods have been used in order to expose the syntactic properties of individual words. This is hardly surprising as British lexicography is not based on functional theory and decisions taken by the edi-

tors frequently are more influenced by linguistics than well-defined user needs. Three examples will show the variations:

suggest *obj* [SHOW/EXPRESS] [...] [T] to communicate or show (an idea or feeling) without stating it directly or giving proof. *Recent polls seem to suggest that the government's popularity is at an all time low.* [+ that clause] • *Evidence suggests that exposure to lead may cause mental damage in children before they show any adverse physical symptoms.* [+ that clause] • *She's applied for a lot of jobs recently, which suggest that she's not altogether happy with her present situation.* [+ that clause] • *She made one or two remarks which suggested that the company was in financial trouble.* [+ that clause] • *Now, I'm not suggesting that you were flirting with Adrian, but you were certainly paying a lot of attention to him.* [+ that clause] • *Are you suggesting (that) I look fat in these trousers?* [+ (that) clause] • *Something about his manner suggested a lack of interest in what he were doing.*

Example 11: Dictionary article from Cambridge (1996)

suggest [...] **verb** 1 ~ sth (to sb) to put forward an idea or a plan for other people to think about [SYN] PROPOSE. [VN] *May I suggest a white wine with this dish, Sir? A solution immediately suggested itself to me* (= I immediately thought of a solution). [v (that)] *I suggest (that) we go out to eat.* [V -ing] *I suggested going in my car.* [VN that] **It has been suggested** that bright children take their exams early. (BrE also) *It has been suggested that bright children should take their exams early.* 2 ~ sb/sth (for sth)/~ sb/sth (as sth) to tell sb about a suitable person, thing, method, etc. for a particular job or purpose [SYN] RECOMMEND: [VN] *Who would you suggest for the job? She suggested Paris as a good place for the conference. Can you suggest a good dictionary?* help You cannot 'suggest somebody something'. *Can you suggest me a good dictionary?* [v wh-] *Can you suggest how I might contact him?* 3 ~ sth (to sb) to put an idea into sb's mind, to make sb think that sth is true: [v (that)] *All the evidence suggests (that) he stole the money.* [VN] *The symptoms suggest a minor heart attack. What do these results suggest to you?* 4 to state sth indirectly [SYN] IMPLY: [v (that)] *Are you suggesting (that) I'm lazy?* [VN] *I would never suggest such a thing.*

Example 12: Dictionary article from Oxford (2000)

suggest [...] verb [T]

1 to offer an idea or a plan for someone to consider:

The report suggested various ways in which the service could be improved. • + (that) *I suggest we have dinner first, and then watch the film.* • + what/why/where etc *Can anyone suggest what we should do to increase sales?* • **suggest doing sth** *If there is a mechanical problem, we suggest contacting the manufacturer directly.*

2 to tell someone about something that may be useful or suitable for a particular purpose: RECOMMEND: *Can you suggest an inexpensive restaurant?* • *The doctor suggested rest as an alternative to surgery.*

3 to say that something is likely to exist or be true: IMPLY: *The cause of the problem, as Hutton suggests, is the leadership's refusal to accept any form of criticism.* • + (that) *Are you seriously suggesting that she did this on purpose?* • *I'm not suggesting that giving up smoking will be easy.* 3a. to make you think that something is likely to exist or be true: *As the name suggests, the Carlton Beach Hotel is situated near the sea.* • *Evidence suggests a link between asthma and pollution.* • + (that) *Recent research suggests that the drug may be beneficial to people with muscular disorders.*

4 formal to remind you of something: *The architecture suggested a chapel.*

Example 13: Dictionary article from MacMillan (2002)

None of the above dictionaries are conceived to assist the user in the assimilation of the foreign-language syntax, but it is evident that they all provide some kind of help in this respect as they all combine the individual examples with small notes that have the character of minirules. Cambridge (1996) provides the minirule after the text example(s), probably because it gives priority to text reception, but this solution nevertheless paves the way for some sort of incidental assimilation of the minirule. Oxford (2000) and Macmillan (2002) provide the minirules before the text examples, probably because they give priority to text production (Oxford even provides them just after the definition number). This solution sets the scene for a more systematic introduction to the syntactic properties of *suggest*. However, as the dictionaries are not conceived for this purpose the microstructure chosen makes the syntactic overview rather complicated. It is not a problem as such that the articles are structured according to the various meanings and senses, but it is clearly a problem that access to the minirules is rather difficult. Oxford is probably the most informative of the three dictionaries but its highly codified items (*sb, sth, wh-*) put strong limitations on its user-friendliness. A proposal for a solution based on the article from Oxford could be as follows:

suggest [...] *verb*

1 to put forward an idea or a plan for other people to think about

⇒ *propose*.

suggest something: May I suggest a white wine with this dish, Sir?

suggest something to somebody: A solution immediately suggested itself to me.

suggest + (that) clause: I suggest (that) we go out to eat.

suggest + -ing phrase: I suggested going in my car.

suggest + (that) clause: It has been suggested that bright children should take their exams early.

2 to tell somebody about a suitable person, thing, method, etc. for a particular job or purpose

⇒ *recommend*

suggest something: Can you suggest a good dictionary?

suggest somebody for something: Who would you suggest for the job?

suggest something as something: She suggested Paris as a good place for the conference.

suggest + how clause: Can you suggest how I might contact him?

3 to put an idea into somebody's mind, to make somebody think that something is true:

suggest + (that) clause: All the evidence suggests (that) he stole the money.

suggest something: The symptoms suggest a minor heart attack.

4 to state something indirectly

⇒ *imply*

suggest + (that) clause: Are you suggesting (that) I'm lazy?

suggest something: I would never suggest such a thing.

Example 14: Proposal for the treatment of syntax in a dictionary article (based on Oxford 2000)

It is obvious that this proposal may be modified in various ways (e.g. in terms of layout) but it provides, nevertheless, an example of how the syntactic properties of a word can be accentuated and made easily accessible without destroying the semantic presentation of the word. The latter also shows that the lexicographic assistance to assimilation of the syntax can be combined with the assistance to text reception, and as the syntactic minirules, at the same time, are essential for text production, this function can also easily be performed by the same dictionary (see Tarp 2004). Moreover, if the lexicographer wants to improve the assistance given to the assimilation of the syntax, the data provided in the individual articles should be combined with a more universal presenta-

tion in a dictionary grammar. The only English learner's dictionary mentioned above that includes a dictionary grammar is Cobuild (2001) and although this 222-page grammar is well structured and easy to understand, it is not integrated with the lemma list and the access in terms of concrete problems of the above mentioned types is also rather difficult.

Nevertheless, in the end the above analysis of the English Big Five shows that all the necessary ingredients — individual words, minirules, individual text examples and dictionary grammars — are already available in learner's dictionaries and that it is only a question of designing appropriate lexicographic structures and access (search) paths in order to conceive a learner's dictionary that can assist the user in the assimilation of the syntactic system of the language being learned.

The last problem to be discussed in this section has to do with some formal rules of oral and written texts such as pronunciation, orthography, hyphenation and punctuation. These formal rules can easily be exposed in a separate dictionary grammar. However, in many languages not all of these rules are strictly applied at the individual level of each word and sometimes there are also different options where the user may need some guidance.

As regards pronunciation, the dictionary grammar can fully expose the general rules of pronunciation of a given language. But in some languages, like English and Danish, there will frequently be various hypothetical ways of pronouncing a concrete word and the learner would therefore never know the pronunciation if it is not explicitly given. Furthermore, in most languages some individual words (e.g. proper names and foreign words recently co-opted in the language) will differ from the general pronunciation pattern. If the learner's dictionary is conceived for the assimilation of the spoken language, indications of pronunciation should therefore be given at the individual level of all the words in question. This is particularly relevant if the dictionary is an electronic one with sound as the written indications of pronunciation are often extremely difficult to interpret.

As regards orthography, it is evident that the general rules can be explained in the dictionary grammar and that each dictionary article automatically reflects how these rules are applied at the individual level of each word, also if they for one reason or other break the universal rules.

This also applies to hyphenation, which frequently is very difficult to explain and assimilate at the general level, for which reason it is recommended that all learner's dictionaries dealing with written language should indicate the hyphenation related to each and every word.

Punctuation is a slightly different topic. In this case, the general rules should first of all be explained in the dictionary grammar as punctuation is a phenomenon related to the phrase and text level and is difficult to treat at word level. However, in a few cases such as some conjunctions and insertions — *however, nevertheless, in effect*, etc. — it could be useful for the assimilation of the general punctuation rules to include a note in this regard on the use of commas.

To summarise: The discussion in this section has proven that dictionaries are quite capable of assisting the learner with the assimilation of the foreign-language grammar. In line with Mugdan (1989a, 1989b), it has also been shown that the best solution is to integrate a dictionary grammar, which explains the universal grammatical rules of the language in question, with the articles in the word list where the individual expressions of these rules can be exposed and where so-called minirules can play the role of the particular mediating between the individual and the universal. The concrete proposals put forward in this section suggest a solution to the abyss that actually exists between the language system described in grammars and the grammatical properties of the individual words treated in dictionaries.

The analysis in this and the previous section also showed that a number of dictionaries already, at least up to a certain point, assist the learner in the assimilation of the foreign-language lexis and grammar. It showed that the majority of the lexicographic data needed to assist the conscious study of the foreign-language system are already available in existing dictionaries and that the main challenge is to conceive an appropriate data distribution structure and a corresponding system of explicit and implicit references together with easy access and search paths (see Tarp 1995, 1999b and Lauridsen 1998). In this respect, the two sections also indicated that the discussion about dictionary structures necessarily has to be based on the respective lexicographic functions and not taken in isolation from the real user needs. It goes without saying that the proposals put forward have to be elaborated and adapted to each language, user group and type of learner's dictionary.

10. Functions of learner's dictionaries

From the discussions in this article it appears that learner's dictionaries can have a variety of different lexicographic functions. They can be designed to assist three different types of users (beginners, intermediate and advanced learners) in four different types of user situations, of which two — text reception and text production — are communication-orientated and the other two — assimilation of the foreign-language lexis and grammar — are knowledge-orientated. This gives a total of 12 basic lexicographic functions of learner's dictionaries:

- communication-orientated functions
 - (a) to assist learners at beginner's level with L₂ text production
 - (b) to assist intermediate learners with L₂ text production
 - (c) to assist advanced learners with L₂ text production
 - (d) to assist learners at beginner's level with L₂ text reception
 - (e) to assist intermediate learners with L₂ text reception
 - (f) to assist advanced learners with L₂ text reception

— knowledge-orientated functions

- (g) to assist learners at beginner's level with the assimilation of L₂ grammar
- (h) to assist intermediate learners with the assimilation of L₂ grammar
- (i) to assist advanced learners with the assimilation of L₂ grammar
- (j) to assist learners at beginner's level with the assimilation of L₂ lexis
- (k) to assist intermediate learners with the assimilation of L₂ lexis
- (l) to assist advanced learners with the assimilation of L₂ lexis

As mentioned in the previous sections, when a dictionary is conceived and planned these functions must be described in further detail according to the specific foreign language, the specific user profile, the specific circumstances of foreign-language learning and the specific user needs that may be expected in each user situation. If the dictionary in question is going to have more than one function, the lexicographer must also make decisions regarding the principles of combination and the possible priorities in case of conflicting solutions. All this is a topic for future research.

The discussion in this article also suggests that the very concept of a learner's dictionary has to be redefined. A learner's dictionary does not refer to just one type of dictionaries, but to a whole branch of dictionary types. It is a superordinate concept that embraces a whole range of dictionaries with different functions and combinations of functions. This should be reflected in the whole process of dictionary planning and making, in dictionary reviewing and also in the presentation of each dictionary so as to enable the potential user to choose the dictionary that exactly fits his/her specific needs.

11. How to use a learner's dictionary

Hausmann (1977) made a distinction between a "learning dictionary" (Lernwörterbuch) and a "consultation dictionary" (Konsultationswörterbuch). According to this typology, either the learning dictionary is to be studied from beginning to end (primary learning dictionary) or its individual articles are to be studied in this way (secondary learning dictionary), whereas the consultation dictionary is to be used for consultations related to text reception and text production. Hausmann himself notes that learning dictionaries of the above type are rare. He only puts forward a very reduced proposal as to how they could be conceived and he apparently considers learning dictionaries and consultation dictionaries to be exclusive to each other.

It is difficult to imagine a learner who would study the foreign language word by word and/or semantic field by semantic field. Such a method is contrary to all present knowledge about language learning. Although language learning could and in many cases should be a conscious process, this does not mean the learner has to study the dictionary in the above-mentioned way. It is

well known that back in the 19th century when comparative linguistics dominated and little progress had been made concerning language-didactic methods, many foreign-language students studied and learned the foreign language by means of a bilingual dictionary. The result, however, was an extreme degree of mixed bilingualism. Whether a learner's dictionary is bilingual or monolingual, alphabetic or systematic, no learner is recommended to learn the foreign language word by word or semantic field by semantic field. So the learner's dictionary should be used as a reference work and conceived accordingly. But this does not exclude that it could be used and conceived to be used in order to support a conscious study of the language system.

A learner engaged in a conscious study of a foreign language will many times consult the learner's dictionary for assistance to solve problems related to text reception or text production. Once the learner has found the lemma in question, he/she will frequently become interested in knowing more about the word and will then proceed to a conscious study of other parts of the same dictionary article or even other articles within the same semantic field. The consultation process begins with one purpose — for assistance in terms of communication — and is then transformed into a conscious study with another purpose — for knowledge about the foreign language in question. The two different ways of using a learner's dictionary are therefore not exclusive to each other. In this way, the traditional opposition between the dictionary as a consultation tool and as a learning tool, has also been dissolved. Instead, lexicographic theory should distinguish between monofunctional and multifunctional dictionary use.

12. Conclusion

This article has concentrated on some basic problems of learner's lexicography. It has laid the foundation of a new theory of learner's dictionaries and has indicated some ways through which this theory can be further developed. The main challenge now is to transform the present knowledge into practical dictionary concepts for guiding the production of a new generation of learner's dictionaries that, hopefully, will meet the learner's needs even better than the existing ones.

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