Non-equivalence of delexicalised verbs in bilingual dictionaries

Abstract

This paper deals with the treatment of delexicalised verbs in bilingual dictionaries. In particular, it aims to highlight the problems related to translation equivalence in the light of recent multilingual corpora research and how bilingual dictionaries can improve their description of delexicalised verbs on the basis of corpus data. Importantly, attention is drawn to the fact that bilingual lexicography concerned with two typologically different languages, as opposed to mainstream European practice, also poses challenges to researchers of machine translation. Specific reference is made to English-Turkish bilingual dictionaries and recent corpus research on Turkish.

Keywords: delexicalization, delexical verbs, translation equivalence

1. Introduction

Corpus research has shown that the commonest meanings of words are not usually those supplied by introspection and consequently by dictionaries. It has also been demonstrated that

"[t]here is a broad general tendency for frequent words, or frequent senses of words, to have less of a clear, and independent meaning than less frequent words or senses. These meanings of frequent words are difficult to identify and explain; and, with the very frequent words, we are reduced to talking about uses rather than meanings. The tendency can be seen as a progressive delexicalization, or reduction of the distinctive contribution made by that word to the meaning" (emphasis added) (Sinclair 1991:113).

These frequent words without independent meaning commonly operate in the construction of normal texts (Sinclair and Renouf 1988), and it is unhelpful to attempt to analyse them grammatically (Sinclair 1991:113). However, delexicalization has not been studied extensively as a linguistic phenomenon, and limited literature is available on a small number of delexicalized nouns and prepositions (e.g. Sinclair 1989), intensifiers (Partington 1993), and verbs and adjectives (Sinclair and Renouf 1988, Sinclair et al. 1996). The notion of delexicalization is central to the study of collocation where the delexical word acts in conjunction with other words and shares their meaning (Sinclair and Renouf 1988, Partington 1993). Delexicalization has also been neglected in monolingual and bilingual lexicography (Pérez-Hernández 1996), and delexical structures have not been considered in terms of equivalence in bilingual dictionaries. Previously, in an investigation of Serbo-Croatian and English verb+noun collocations, Benson (1989) also pointed out that the contrast between collocations in different languages was striking but not adequately dealt with in bilingual dictionaries. For the purposes of this paper I will discuss only two of these verbs in English, do and make, and two such verbs in Turkish, yapmak and etmek.
2. Delexicalized verbs

Typically, have, take, give, do and make can be listed among the most delexicalized verbs in English (Collins Cobuild English Grammar 1990:147). "The primary function of make, for example, is to carry nouns like decision/s [...] thereby offering the alternative phraseology 'make your own decisions' to 'decide on something' [...] and so on. Which of the two formulations to choose is obviously a strategic matter in text creation, but the delexical option is firmly there" (Sinclair and Renouf 1988).

Another area of research where this common category of verbs has not found a satisfactory explanation is Language Contact. Studies on various languages in contact show that these verbs operate largely in borrowing although their delexical function as such has not been recognised and they have been varyingly called auxiliary verbs (e.g. Backus 1996:236 Turkish, Tamis 1986:169 Greek), semi-auxiliary verbs (e.g. Silva-Corválan 1986 Spanish), compound verbs (Kachru 1978 Hindi), operators (Romaine 1989:131 Panjabi), and so on.

Recent corpus-based monolingual dictionaries of English (e.g. Collins Cobuild English Dictionary 1995) deal with the delexical function of such verbs. For example, the user finds out straight away that "DO is often used instead of a more specific verb" as in do the washing up, do the garden and so on (p. 486) and MAKE "is used with a wide range of nouns" which refer to an action as in make a phone call and so on (p. 1006). However, the bilingual dictionaries examined in this paper have not caught on to this fact yet (see also Perez-Hernández 1996 on Spanish-English dictionaries).

Not surprisingly, standard grammars and dictionaries of Turkish do not have very comprehensive treatments of etmek and yapmak, supposedly the equivalents of do and make, and often refer to etmek as the 'compound verb' or 'auxiliary verb'. It is specified that most loan words from Arabic and Persian operate in Turkish as nouns in noun+etmek construction, regardless of their grammatical class in the original language; and there is hardly any mention of yapmak with reference to its delexical function (or any other verb for that matter). For example, Underhill's grammar (1976:246) touches briefly on this issue:

"Many verbs in Turkish are compounds, formed by a noun indicating an action, followed by the auxiliary verb etmek. The noun is usually, although not always, of Arabic, Persian, or European origin [...]. Thus, with the word telefon 'telephone' we get the verb telefon etmek 'to telephone'; the noun remains invariable, and the verb is conjugated as any other verb".

Similarly, we find such explanations as the following in The Concise Oxford Turkish-English/English-Turkish Dictionary (p. 98):

"ETMEK is the verb most commonly used to make a composite verb, chiefly with Arabic nouns, eg zannetmek, to think; sarfetmek, to spend; when the noun is of two syllables, the noun and the verb are usually written separately, eg hizmet etmek, to serve; telefon etmek, to telephone".

In these entries, differences between spoken and written texts of Turkish are not dealt with, either. This is largely due to the fact that a systematic study of their frequency counts has been lacking (Kurtbóke 1998). The only comparative study of spoken and written Turkish corpora goes back to research (Pierce 1961, 1963) conducted between 1957-60 in Turkey. In Pierce's
corpus of 140,000 words of spoken Turkish, yapmak ranked 14th (1,264 occurrences) among the most frequent 20 items, and in his 100,000-word written corpus etmek was the 3rd (1,944 occurrences) and yapmak was the 10th (650 occurrences).

2.1. Translation Equivalence

Translation equivalence has always been an intriguing issue for compilers as well as the user of dictionaries:

"Traditionally, bilingual dictionaries do not include a specific explanation of the reasons why a word is translated in one way rather than another [...] there is usually just a list of words in the target language that constitute possible translation equivalents under certain circumstances, and very little information about when to use which" (Sinclair et al 1996:177).

In fact, the most commonly used English-Turkish/Turkish-English dictionaries do exactly that. For example, in The Oxford English-Turkish Dictionary, we have a list of a number of possible equivalents without any reference as to which equivalent is used when and the user is expected to work it out without contextual information:

"DO Yapmak, etmek: kilmak, bitirmek; başarmak; tanzim etm; düzeltmek; (mesafe) kat etmek; bir rolü oynamak; (arg.) aldatmak, kafese koymak; elverişli olm., uygun gelmek, yakışmak. be done - yapılmak; tamamlanmak; (et) kafi pişirilmek; bitkin bir hale gelmek; (arg.) aldanmak" (p. 151).

MAKE Yapmak, etmek, kilmak; yaratmak, imal etm.; husule getirmek; teşkil etm.; kazanmak" (p. 327).

The Oxford Turkish-English Dictionary likewise, provides the following equivalents for do and make:

"YAPMAK Do; make; create, give rise to; build; construct; constitute; arrange; repair; apply; set to rights; make ready" (p. 501).

"ETMEK Do; make; cost; be worth; fetch (a price): (+neg.adv.) live, exist, manage: (-i), reach, find: (-den), do without; deprive of: (-e), do to; make; (child.) relieve o.s. As aux v it is used with adjectives and nouns, combining with monosyllables (BERBAT ETM., ZANNET-MEK)" (p. 169-170).

These entries both in The Oxford English-Turkish and The Oxford Turkish-English dictionaries include a number of idiomatic uses later on in the same column which will not be considered here. However, the selection of these idiomatic expressions seems to have been based on the lexicographers' intuition rather than on other criteria. This is not surprising as the major bilingual English-Turkish dictionaries rely on their previous editions which were not based on large corpora (Kurtböke 1996).
The missing information in the entries above is the frequent noun phrases which co-occur with these verbs and carry most of the meaning. Although it is not always predictable whether a user will go to the noun or to the delexical verb in the dictionary to find such structures (see for example Atkins and Varantola 1997), consistency in their treatment is important. The user may not be aware that some verbs may be nominalized and used in a delexical structure with a similar meaning (Sinclair et al 1990:147, see also Kurtböke 1997). For example, in The Oxford English-Turkish Dictionary the delexical structure make+a+decision, which is the alternative to the verb decide, is not included with the noun (decision) or the verbs involved (decide, make). Similarly, a Turkish user cannot retrieve the make a decision option by looking up the Turkish equivalent of decision (karar) or decide (karar vermek).

Pairs like to decide and make a decision in English, however, do not always have an equivalent pair in Turkish. Although there is a superficial similarity, the Turkish pair kararlaştırmak and karar vermek function differently as the independent verb form (kararlaştırmak) in Turkish encapsulates noun+reciprocal suffix+causative suffix and acquires a different meaning (to arrange to...which involves the participation of at least two people in the decision). In The Oxford English-Turkish Dictionary, both kararlaştırmak and karar vermek are given as the equivalents of decide but the distinction in their meaning (due to the suffixation in the independent verb) is not clear.

Similarly, in The Oxford Turkish-English Dictionary the equivalent for karar vermek is given as decide. In the Turkish corpus, on the other hand, we observe that not all occurrences of karar vermek translate as decide but it also means come to the conclusion that... as in 8 below. Interestingly, 16 out of 45 occurrences have a nominalization+dative suffix form immediately to the left of karar +vermek as in 1-8:

1. hangisi olduğuna karar vermeden önce kullanulan bir
2. Katılmaya karar verirken şahsi ilgilerini takip
3. kılmayı mı ıstediğiniz karar vermeniz gerekcektir Eğer
4. hakkı olduğuna karar verileri programdan
5. için hükümletin atıaya karar verdigi adımların özetini aşağda
6. bir daire kiralamaya karar vermiş son beş yıldır kendisi
7. yolun hangisi olduğuna karar verir Sağlık Hizmetleri Şikayet
8. sakatlığı olmadığını karar verdi ve başvurununu reddetti

While in English the verb decide is simply followed by the infinitive marker to as a base for the following verb (e.g. he decided to leave), the equivalent Turkish construction uses a nominalized verb followed by a dative case marker. This information is clearly important for the purposes of machine translation although it is hardly dealt with in manual lexicography.

Let us now turn to delexical do+noun pattern. Corpus evidence shows that the nouns damage (154) and harm (162) collocate frequently with do. As in the case of decide and make a decision, there are pairs to damage and do damage, to harm and do harm. But with their Turkish equivalent zarar, which is an Arabic loan, the choices are limited as it cannot function as a verb on its own. In The Oxford English-Turkish Dictionary the equivalent of to damage and to harm is given as zarar vermek. Interestingly, this information helps us discover yet another delexicalised verb in Turkish, vermek. This illustrates the fact that
standard dictionary and grammar book information on *etmek* (as an auxiliary which chiefly co-occurs with Arabic nouns) should be reconsidered; apparently there are others which have the same function. In the Oxford Turkish-English bilingual dictionary *give* is the equivalent of *vermek*, which, in turn, is another delexicalised verb in English. This, then, points to the fact that their collocates do not run parallel in English and Turkish and further investigation is necessary to establish the equivalents.

Corpus evidence shows that *zarar+vermek* pattern is often preceded by the dative suffix in Turkish (10-13). This is again a significant construction which is not dealt with in manual lexicography but of interest for machine translation processes:

<table>
<thead>
<tr>
<th>No.</th>
<th>Example</th>
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</thead>
<tbody>
<tr>
<td>9.</td>
<td>ve psikolojik yönden zarar verir</td>
</tr>
<tr>
<td>10.</td>
<td>İnsanların kendileri zarar vermek istediğini inancında</td>
</tr>
<tr>
<td>11.</td>
<td>ya da başkalarıza zarar verme riski olduğunu durumunda</td>
</tr>
<tr>
<td>12.</td>
<td>gazeteleri topluma zarar vermeye yönelik yayılmandan</td>
</tr>
<tr>
<td>13.</td>
<td>ters düşücecek onlar zarar verecek sözler söylemek</td>
</tr>
<tr>
<td>14.</td>
<td>vatannına yarar ya da zarar verebilecek bir konumda olması</td>
</tr>
</tbody>
</table>

Again, in the Turkish-English volume the user cannot find the delexical construction *do... damage/harm* by looking up the noun *zarar* or the verb *vermek*.

Let us now examine *yapmak* and *etmek*, the Turkish equivalents of *do* and *make*. Concordance lines from the Turkish corpus of *yapmak* show that a considerable number of the preceding nouns end in the suffix -lîk/lük/îk/luk^2 and acquire the meaning of *work as a...*, *play the role of...* as in the examples 15-30. Such strong *suffix+verb* co-selection supports the view that traditional categories of grammar should be treated with caution when the machine translation process involves at least one agglutinative language, as the suffix carries or shares the semantic load with the noun:

<table>
<thead>
<tr>
<th>No.</th>
<th>Example</th>
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<tbody>
<tr>
<td>15.</td>
<td>bu işe önderlik yaptı</td>
</tr>
<tr>
<td>16.</td>
<td>olan ekibe önderlik yapmak</td>
</tr>
<tr>
<td>17.</td>
<td>takdimcilik yapacak</td>
</tr>
<tr>
<td>18.</td>
<td>önünde takdimcilik yapma</td>
</tr>
<tr>
<td>19.</td>
<td>konularda dansmanlık yapmakla</td>
</tr>
<tr>
<td>20.</td>
<td>konusunda dansmanlık yapmaktr</td>
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<tr>
<td>21.</td>
<td>konulardında dansmanlık yapmaktan</td>
</tr>
<tr>
<td>22.</td>
<td>yıldan beri Video'culuk yapmaktaşdir</td>
</tr>
<tr>
<td>23.</td>
<td>çocuklara özel hocalık yapmak</td>
</tr>
<tr>
<td>24.</td>
<td>ve büyükbabalık yaparak</td>
</tr>
<tr>
<td>25.</td>
<td>Avustralya'da ezacılık yapabilmek</td>
</tr>
<tr>
<td>26.</td>
<td>kaydolmadan ezacılık yapmak</td>
</tr>
<tr>
<td>27.</td>
<td>buyana yıl Başkanlık yapana</td>
</tr>
<tr>
<td>28.</td>
<td>meclisinde Başkanlık yapmştir</td>
</tr>
<tr>
<td>29.</td>
<td>incelemeyle Başkanlık yapmaktadır</td>
</tr>
<tr>
<td>30.</td>
<td>bize tứcümanlık yapıyor</td>
</tr>
</tbody>
</table>

The frequent co-occurrence of this suffix with *yapmak* shows that this tendency is significant and should be included in the treatment of the delexical structure of *yapmak*. This type of information does not appear in the dictionaries consulted here.
The last verb under examination is *etmek*. A Turkish noun which is not of Arabic origin and collocates frequently with *etmek* is *göç* (migration), meaning *migrate*. According to the dictionary, *göç* is also used as an independent verb (*göçmek*) with the same meaning although it has no instances in the Turkish corpus and that the delexical form is much more common:

| 32. | adına Avustralya'ya | göç edecek | olanlara mesleksel |
| 33. | Avustralya'ya      | göç edebilme | bu ülkede çalışma ya da |
| 34. | kanunsuz olarak    | göç edenlere | kanuni müsaadeleri almaları |
| 35. | ailelerinden       | göç edenlerin | beraberce denemesi ve |
| 36. | Avustralya'ya      | göç ederek | gelmiş ve yıldan beri |
| 37. | Amerika'ya         | göç eden | göçmenleri çok geçmeden |
| 38. | gibi Avustralya'ya | göç eden | Türklerin resmi yoldan ilk |

An English-speaking user with limited knowledge of Turkish can easily be misled by such information as it is not clear whether *göçmek* and *göç etmek* are interchangeable and equally common or not in Turkish. In fact, the corpus evidence shows that *göçmek* is not common at all.

The last point I want to make is that there are delexical structures which are restricted with respect to the form of the following noun. That is, the noun is mainly used in the plural form as for example in *do+repairs*. Interestingly, the Turkish equivalent of the singular form *tamir* (repair) is used with *etmek* but the plural form *tamirat* (repairs) attracts *yapmak* and there is also a difference in meaning. This is again important information about usage which is not available to the user in the dictionary.

3. Conclusion

The most commonly used bilingual dictionaries today, such as *The Oxford English-Turkish/Turkish-English Dictionary*, still rely on the previous editions (Kurtböke 1996) which were certainly not based on large corpora. However, recent developments in the areas of multilingual lexicography and translation show that contextual information is essential in the identification of translation equivalents, which can only be accessed through large corpora. One of the intriguing areas identified as a result of ongoing research projects on translation equivalence (Sinclair et al 1996) is *delexicalization*. Initial experiments on a limited number of language pairs (e.g. Spanish-English) lead to the observation that delexical verbs, which do not perform the action but share the semantic load with the following noun phrase, are common across languages. Consequently, a detailed study of their co-occurrence tendencies in large corpora is essential for the new generation of bilingual dictionaries and machine translation. In this paper, the equivalence of English and Turkish delexical verbs is explored as an area awaiting further investigation in multilingual lexicography and translation projects.
4. Notes

1. The corpora used are the Bank of English, Cobuild, Birmingham and the Ozturk Corpus, a collection of 1000 newspaper texts, compiled as part of a large-scale study of Turkish-English language contact in Australia.

2. Due to the differences in the word order, Turkish constructions appear in the reverse order. That is noun+verb as opposed to verb+noun construction in English. Naturally in passive constructions the word order will be the opposite.

3. The choice of the vowel (i, ı, û or u) will be constrained by the preceding syllable, in accordance with the vowel harmony rule.

4. The other noun+lik or adjective+lik forms found in the corpus in the company of yapmak are: değişiklik, göçmenlik, temizlik, hazırlık, yaramazlık, fenalık, pazarlık, federatılık, ayırıcılık, yenilik, azgınlık, yolculuk, yolcu, yolculuk.

5. This is in spite of the fact that Ozturk Corpus has been built in the context of immigration (Turkish in Australia), and göç and its various forms rank among the most frequent words.

6. I would like to thank Jeremy Clear, Liz Potter at Cobuild and Phillip King at EISU, University of Birmingham for their comments and suggestions.

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