High Frequency Words: the Bête Noire of Lexicographers and Learners Alike

A close look at the verb *make* in five monolingual learners' dictionaries of English

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Abstract
The highly polysemous and phraseological nature of high frequency words makes them a major stumbling block for both lexicographers and learners. This article seeks to investigate the lexicographic treatment of high frequency words through a detailed study of the verb *make* in five recent editions of monolingual learners' dictionaries (CALD 2003, COBUILD 2003, LDOCE 2003, MEDAL 2002 and OALD 2000). After a first section devoted to the nature of high frequency words and the difficulties they pose, sections 2 and 3 respectively focus on the semantic and phraseological treatment of the verb *make* in the five dictionaries. The article is rounded off by a series of suggestions for improvement and a plea for increased learner training in dictionary use.

1. High Frequency Words

High frequency words are very demanding for lexicographers (Moon 1987; Bogaards 1998; Cowie 2001). Although the use of mega corpora has simplified their work by providing them with frequent patterns of use, the 'information overload' (cf. Kilgariff and Rundell 2002) they generate has simultaneously made it considerably more complex. As the meanings of high frequency words tend to be highly contextualized, it is very difficult to decide which uses deserve the status of distinct sense in the dictionary and which should be considered as mere contextual variations. As a result, lexicographical treatment of high frequency words tends to be very diversified. Some dictionaries distinguish a large number of meanings, while others try to limit the number by grouping related meanings. Moon (1987) refers to the two strategies as 'splitting' and 'lumping' respectively.

It has been suggested that high frequency words ought to be omitted or given cursory treatment to allow more space for rarer ones, which are arguably more useful and consulted more often (Geeraerts 1989). However, this is clearly not an option in dictionaries for learners as the many (semi-)opaque uses displayed by high frequency words (e.g. *make it, make good, make do, make light of*) make them difficult to decode, while their restricted collocability (e.g. *make an effort* vs. *take a step* vs. *do sport*; *make the beds* vs. *do the rooms*) poses major encoding difficulties for learners. Indeed several recent studies, based on the analysis of computer learner corpora, have revealed a high error rate, even among advanced learners (Hasselgren 1994, Källkvist 1995 and 1999, Nesselhauf 2003 & forthcoming). There is no doubt therefore that learners would benefit from consulting their monolingual learners' dictionaries when faced with the task of either encoding or decoding these words.

Unfortunately, as pointed out by Bogaards (1998: 555), they tend to look up "words which have familiar forms but which are used in unknown senses (...) far less often than words whose form and meaning are unknown". Paradoxically, the result is that "the entries which require most inventiveness on the part of dictionary makers tend to be ignored by the dictionary users" (ibid.).

In this article, we compare the treatment of high frequency words in five recent monolingual learners' dictionaries through the prism of one such word, the 'heavy-duty' verb (Cowie 1999: 96) *make*. The five dictionaries under scrutiny are the Cambridge Advanced Learner's Dictionary 2003 (first edition, henceforth CALD), the Collins COBUILD Advanced Learner's English Dictionary 2003 (fourth edition, henceforth COBUILD), the Longman Dictionary of Contemporary English 2003 (third edition, henceforth LDOCE), the MacMillan English Dictionary for Advanced Learners of English 2002 (first edition, henceforth MEDAL), and the Oxford Advanced Learner's Dictionary of Current English 2000 (sixth edition, henceforth OALD). Section 2 focuses on the semantics of *make*, while section 3 concentrates on its phraseology.

2. Major semantic subdivisions

As it is unrealistic to examine all the meanings and uses of *make* within the scope of this article, we focus on the core meanings used by lexicographers as semantic structuring principles to help learners locate the meaning or use they are looking for without having to read the whole entry. These core meanings – hereafter referred to as major semantic subdivisions – feature in all five dictionaries, but there are important differences in the access structure used, the number of subdivisions distinguished and the order in which they are presented.

Dictionaries	Menu	Signposts
COBUILD	√	Ø
MEDAL	√	Ø
CALD	Ø	√ upper case/box
OALD	Ø	√ upper case/underlining
LDOCE	Ø	√ upper case/bold/colour highlighting

Table 1: Major semantic subdivisions for the entry *make*: guiding devices

Major semantic subdivisions (MSSs) can be presented as menus, which list the core meanings of highly polysemous words at the top of entries and/or as signposts (also called shortcuts or guidewords) placed at the beginning of definitions within entries. As shown by Table 1, none of the five dictionaries use the two devices conjointly. COBUILD and MEDAL have opted for menus, while CALD, OALD and LDOCE use signposts. Interestingly, a comparison between the previous editions of LDOCE and COBUILD and the current editions shows that the two dictionaries have inverted their strategies: LDOCE has

abandoned the combined use of menus and signposts in favour of signposts alone, while COBUILD has replaced signposts by menus. This would seem to indicate that the respective usefulness of each device has not yet been clearly established. Indeed, while Bogaards' (1998) experimental study highlights the general usefulness of semantic guiding principles, it does not distinguish between menus and signposts. Similarly, Tono (1992 and 1997) devotes independent studies to the two devices and concludes that they have beneficial effects on learners, but does not compare their respective merits either. Our own preference is for signposts that are clearly brought out from the rest of the entry through a combination of eye-catching devices (upper case, bold font and blue highlighting), a practice adopted by LDOCE. Prompted by these landmarks, users should experience little difficulty in jumping from one MSS to the next until they reach their target. At this stage, however, this is simply a hypothesis, which needs to be tested experimentally.

Major semantic subdivisions (MSS)	MEDAL	CALD	LDOCE	OALD	COBUILD
1. Create/produce	1	1	1	1	3
2. Do/say/perform	2	4	2	4	1
3. Cause/cause to be/to appear/to happen	3	2 & 3	4	3	2
4. Force	4	5	5	5	[sub 2]
5. Earn/get money	6	9	8	10	[sub 3]
6. Give a total	7	7	10	9	4[3]
7. Calculate		8	11	11	6
8. Cause to succeed/to be perfect	8	11	14	13	[sub 3]
9. Have the right qualities for	9	6	9	8	4[3]
10. Reach a place/arrive	10		13	12	
11. Achieve sth	11	10	7		5
12. Appoint	[sub 3]	[sub 3]	[mSS 18]	7	[sub 2]
13. Cook	[sub 1]	[sub1]	3	[sub 1]	[sub 3]
14. Mark/hole/etc.	[sub 1]	[sub 2]	6	[sub 3]	-
15. A bed	[Idioms]	-	[cross-ref. sub 1]	2	-
16. Arrange	5	-	-	-	-
17. Represent	-	-	-	6	-
18. Sports score	-	-	12	-	[sub 1]

Table 2: Major semantic subdivisions for the entry *make*: number and rank

As the different meanings of high frequency words are difficult to tease out, one can expect to find differences in the number of major semantic subdivisions distinguished in the five dictionaries. As Table 2 demonstrates, this is indeed the case. The leftmost column in the table lists the 18 core meanings that are allocated the status of MSS in at least one of the five dictionaries (see Appendix 1 for illustrations of these meanings).[1] The other columns show how these meanings are represented in the five dictionaries. If a core meaning is given

MSS status in the dictionary, its rank is indicated.[2] The table draws a clear dividing line between COBUILD, on the one hand, which distinguishes only 5 MSSs, and the other dictionaries, which all distinguish over 10: 11 in MEDAL and CALD, 13 in OALD and 14 in LDOCE. Only three MSSs (1, 2 & 9) have the status of independent meaning in all five dictionaries, while seven (12-18) are only found in one of the five dictionaries.

It is difficult to make general assertions on the issue of lumping vs. splitting of meanings in learners' dictionaries. In this, like in so many other things, too much of a good thing is not so good. Excessive splitting, illustrated by MSS 16 ('arrange'), which is only distinguished by MEDAL, is to be avoided as it gives the status of independent meaning to a highly contextualized use, a strategy that might lead learners to make erroneous inferences. On the basis of *I've made an appointment* [our emphasis] *for you with the doctor for tomorrow morning* (MEDAL), they might be led to produce *they *made a meeting between the teachers and the students* or *The conference has been *made for Wednesday.* Similarly, 'make a bed', to which OALD alone gives the status of MSS, is better placed in an idiom section or cross-referenced with the word *bed.* Excessive lumping is not a good thing either, as it leads to overly abstract or broad categories, which lack in clarity (cf. Tono 1997). In this sense, COBUILD's reduction of the highly complex verb *make* to just five core meanings runs the risk of being counter-effective. A category labelled 'link verb uses' is not likely to provide adequate access to the two meanings it subsumes, i.e. 'give a total' (MSS 6) and 'have the right qualities for' (MSS 7). The decision to split or lump should always be weighed against the users' interest. As pointed out by Béjoint (2000: 231), "[a] word might be considered monosemous or quasi-monosemous by semanticists and yet be split up into different meanings in the dictionary on the grounds that this is more useful for whoever will consult the dictionary." For example, a separate subdivision for 'cook' (in LDOCE only) can be seen as desirable as it is largely generalizable (e.g. *make breakfast, dinner, lunch, risotto, pizza, cake, etc.*). Similarly, even though the meanings 'give a total' (cf. MSS 6 in Table 2, as in *12 and 12 make 24,* CALD) and 'calculate' (cf. MSS 7, as in *I make that exactly $50,* OALD) both have to do with counting and/or money, they are in fact quite different semantically and syntactically and separate subdivisions can be regarded as perfectly justified.

A third aspect that can be compared in the five dictionaries is the order in which the different meanings are presented. Table 2 shows that four of the five dictionaries rank the prototypical concrete meaning 'produce' in first position. In COBUILD, however, it is ranked third after the delexical and causative meanings. As pointed out by Sinclair (1991: 112) "the commonest meanings of the commonest words are not the meanings supplied by introspection." For the verb *make*, the first meaning that comes to people's minds is not likely to be the causative or delexical use, but the core meaning, i.e. "the most frequent independent meaning" (ibid: 113), the meaning of 'produce'. Whether and to what extent dictionaries should model their organization on users' mental lexicon is still an open question. It is clear, however, that more work needs to be done into the role of prototypes in foreign language learners' mental lexicon and its potential implications for lexicography, a field that is referred to as 'psycholexicography' (Béjoint 2000: 166). Generally speaking, it is interesting that the order of meanings is far from identical even in dictionaries that claim to have taken frequency of occurrence as their main criterion. This difference is probably

due to differences in corpus composition. The fact that "it is impossible to speak of the frequency of a word in the absolute" (Muller 1975: 5) brings into question the validity of frequency as the main ordering principle. Gilquin's (2003) corpus-based study of causative verbs has shown that the causative use of *make* is highly register-sensitive: it occurs almost three times as frequently in speech as in writing. The causative meaning can therefore be expected to vary in accordance with the proportion of speech vs. writing in the reference corpus used.

3. Collocations and idioms

The verb *make*, like many high frequency verbs, is highly phraseological (e.g. Cowie 1999), i.e. it enters into numerous collocations and idioms. In this section we compare the five dictionaries under scrutiny in terms of the coverage of phraseological uses, their presentation and their success in preventing learner errors.

Basing ourselves on written and spoken corpora, the literature on phraseology and current learners' dictionaries and dictionaries of collocations and idioms, we have compiled a list of 349 phraseological sequences containing *make*. The list includes various types of word combinations, which have been classified into two broad categories: collocations (239) and idioms (110). The collocations are essentially *make* + N sequences where *make* is used as a delexical verb (*make a statement, make a concession, make an offer, make a threat*, etc.). The term idiom is used to cover the more fixed and/or opaque combinations such as *make it, make oneself at home* or *make something of oneself.* Phrasal verbs are excluded from the analysis unless they occur as part of longer word combinations (e. g. *make up for lost time*).

	Collocations	Idioms
MEDAL	73.5%	93.5%
CALD	70.5%	90%
LDOCE	79.5%	99%
OALD	82%	96%
COBUILD	62%	68%
Average	73.9%	89.4%
Average collocations + idioms	81.6%	

Table 3: Coverage of collocations and idioms

Table 3 gives the coverage of the collocations and idioms in our list in the five dictionaries whether they are recorded in example sentences, in subentries or in separate 'phrases' sections. As the percentages in the table reveal, the overall coverage of collocations and idioms is rather good (81.6%) with collocations faring less well than idioms (collocations: 73.9% vs. idioms: 89.4%). This difference in coverage can be seen to reflect the fact that, while idioms make up a rather well-established closed set of word combinations, the list of collocations, and more especially those involving delexical high-frequency verbs, is far more open-ended if not infinite. In view of this open-endedness, an

average coverage of over 70% for collocations is truly remarkable. It is important to point out that, as a rule, the *make* + N collocations are recorded under the noun. That said, an average 22% of the selected collocations are included under both the noun and the verb *make* in at least one of the dictionaries. Some collocations have even been recorded in this way in four (e.g. *make a phone call*, *make a decision*) or in all five dictionaries (e.g. *make a mistake*).

The inclusion of collocations is in keeping both with the recent opening of phraseology to less opaque and/or fixed word combinations and with the current trend towards more production-oriented learners' dictionaries. In this respect, COBUILD's somewhat lower coverage is particularly surprising considering its traditional marked focus on collocations and contextualised uses of words.

While coverage is undeniably important, the actual presentation of collocations and idioms is arguably even more so as it directly affects 'findability' and ease of access. It is not because a certain collocation or idiom is included in a dictionary that learners will automatically notice it. An examination of the manner in which the 349 expressions selected are recorded in the dictionaries reveals that three major approaches can be distinguished in all five dictionaries: (1) word combinations are included in the main body of the entry and they are highlighted (bold type, colour); (2) word combinations are included in the definition (essentially in COBUILD) and/or in examples but are not highlighted; (3) word combinations are included in a separate 'phrases' section or as a separate numbered subentry. While the five dictionaries almost invariably adopt the third approach when recording idioms (in well over 95% of the cases overall), practice diverges considerably when it comes to presenting collocations.

	MEDAL	CALD	LDOCE	OALD	COBUILD
Main body of the entry - highlighted	136 (77.3%)	133 (78.7%)	176 (92.6%)	97 (49%)	7 (4.7%)
Main body of the entry - no highlighting	33 (18.7%)	25 (14.8%)	7 (3.7%)	95 (48%)	128 (85.3%)
Separate phrase section or numbered subentry	7 (4)	11 (6.5%)	7 (3.7%)	6 (3%)	15 (10%)
Total	176	169	190	198	150

Table 4: Collocations with make in the five dictionaries

Table 4 shows that three dictionaries, namely MEDAL, CALD and LDOCE, have a similar tendency: a large majority of the collocations are highlighted in the body of the entry. This tendency is particularly striking in LDOCE (over 90% of the cases). OALD includes the same number of highlighted and non-highlighted collocations, while COBUILD only rarely resorts to highlighting. In addition, both LDOCE and MEDAL provide their users with 'collocation boxes' and 'words frequently used with boxes', which give extra prominence to the word combinations.

Numerous studies have shown that learners, even at an advanced level of proficiency, tend to lack collocational awareness. Learners therefore need all the help they can get when

it comes to noticing collocations, especially in the case of long entries. It is doubtful whether merely recording these sequences in a rather low–key manner (in examples and in definitions without any form of highlighting) is sufficient. As Herbst (1996: 336) rightly points out, "[w]hile it is undoubtedly better to include collocations in example sentences than to leave them out altogether, the value for the learner is much greater if the special character of these combinations is pointed out by giving them typographical prominence of some sort." The use of bold type, colour or special collocation boxes is definitely a step in the right direction.

Rundell (1999) lists prevention of error as one of the major new developments in pedagogical lexicography. Lexicographers and other ELT specialists are increasingly making use of computer learner corpora to identify learner problems and to include preventive data in pedagogical materials. In dictionaries, this type of information can be included explicitly in the form of 'warning notes' or 'common learner error' sections, or implicitly by using a variety of devices, among which the inclusion and highlighting of problematic collocations.[4] With a view to assessing the preventive power of the five dictionaries, we have extracted from the *International Corpus of Learner English* (Granger et al 2002) fifteen authentic errors, which illustrate learners' difficulty in selecting the appropriate delexical verb. All the examples involve the verb *make*, either as the erroneous form (examples 1-11 in Table 5) or as the correct target form (examples 12-15).

1	When man ***makes** (takes) a step, he wants to go further.
2	We have to ***make** (find/strike) a balance between material comfort...
3	If I ***made** (carried out/did) a poll among the Belgian population...
4	Tests on animals are also ***made** (carried out) to improve new cosmetics.
5	Some scientists decided to ***make** (carry out) some research on tobacco.
6	They would not be able to ***make** (form) a pressure group.
7	It is as well to take advantage of it, to ***make** (do) sport.....
8	It is more serious than just ***making** (having) fun.
9	The two pools which ***make** (are/form) part of the complex.
10	Some six months ago I ***made** (had) an experience which really astonished me.
11	I ***made** (did) my homework in a hurry and went outside.
12	This is the mistake most people ***do** (make).
13	Women ***do** (make) all sorts of sacrifices.
14	So many efforts are ***done** (made) to bring about solutions...
15	Sdiller, one of the greatest German writers who ever lived, ***gave** (made) once a statement which I can follow without hesitation.

Table 5: 15 authentic errors involving the verb *make*

Table 6 shows that the coverage in four of the five dictionaries is excellent (around 90%). As regards accessibility, there is a clear dividing line between CALD, LDOCE and MEDAL, on the one hand, and OALD and COBUILD, on the other. The first three systematically include the V + N collocations under the noun and frequently double the chances of access by including them under the verb too, while OALD and COBUILD rarely use duplication, opting for either the noun or the verb. The latter option, which is used for

examples 2, 4, 6 and 9 (OALD) and 2 and 6 (COBUILD), is hardly justifiable as the verb is precisely the element of the collocation that learners are looking for. If one does not know what verb to use with *group*, one is unlikely to look up the verb *form*. In two cases in MEDAL *(research* and *statement)*, the learner is given extra help in the form of a collocation box, which lists the verbs that frequently collocate with the noun.

	CALD	LDOCE	MEDAL	OALD	COBUILD
@ N	9	7	8	9	7
@ N & @ V	5	6	6	1	1
@ V	0	0	0	4	2
Total	14	13	14	14	10

Table 6: Treatment of 15 errors involving make in the five dictionaries

Although a systematic comparison between the paper and electronic versions of the five dictionaries falls beyond the scope of this article, it is interesting to examine whether learners would be better equipped to cope with delexical uses if they used the electronic rather than the paper version. While in OALD, the electronic version is hardly different from the paper version, in the other cases the CD contains a range of innovative features that are likely to help learners locate the information they are looking for (e.g. full text search, advanced search with Boolean operators, collocation boxes, additional examples). For delexical uses, the dictionary that clearly stands out for the amount and quality of information provided is LDOCE. For 12 of the 15 underlined nouns in Table 5, LDOCE provides a 'phrase bank', which contains a list of collocating verbs hyperlinked to an 'examples bank'. In 10 cases, a collocation and examples bank is also included in the entry for the verb. The subdivision of collocations by grammatical category (verbs, nouns, adjectives, adverbs) greatly facilitates ease of access, while the hyperlinked examples provide precious information on other features of the target word (number, article usage, prepositions, etc.).

4. Conclusion

Our aim in writing this article was not to provide a comprehensive overview of the strengths and weaknesses of the five monolingual learners' dictionaries, but rather to uncover some of the practices they resort to in their treatment of high frequency words with a view to drawing some lessons for an improved treatment of long entries in this type of dictionary.

To present the numerous meanings of the verb *make*, all five dictionaries adopt semantic structuring principles, opting for either menus or signposts. In the absence of any experimental study, it is difficult to judge which method provides the more adequate help in accessing information. It is suggested, however, that signposts located within entries, which have the advantage of respecting users' linear reading process, might be the more natural and hence more efficient option, provided that they are made sufficiently conspicuous. Over and above this presentational issue, our study shows that the number of major semantic distinctions differs markedly between dictionaries. Both excessive splitting and lumping are to be avoided as the former may lead learners to make false inferences, while the latter leads

to the creation of opaque categories, which are not likely to help learners locate the desired information.

With regard to phraseology, the coverage of collocations and idioms in the five dictionaries is rather good. The lower scores achieved by collocations is perfectly understandable in view of the near-countless delexical uses of a verb like *make*. There is, however, still room for improvement when it comes to the presentation of collocations both in terms of optimal placement and prominence, especially in long entries. In this regard, electronic dictionaries, which provide new ways of linking and highlighting information without the issue of space, constitute a promising new resource.

The observation that learners tend not to look up high frequency words in their dictionaries (Bogaards 1998; Béjoint 2000), rather than lead lexicographers to shorten the entries for high-frequency words to make space for rarer words, has prompted them to find new and more effective ways of presenting the information. As shown in this article, the battery of devices used is truly impressive. However, the battle will only be won if dictionary users actually use them. To this end, it is incumbent upon foreign language teachers to raise learners' awareness in two major respects. First, learners need be made more conscious of the highly polysemous and phraseological nature of high frequency words so that they start to feel the need to consult their dictionaries for these words, which is currently not the case (as shown by Béjoint 2000: 14). Secondly, they need to be introduced to the new 'riches' contained in their dictionaries and in the case of the electronic versions, the various keys to access the information. Then and only then will lexicographers' worthy efforts be rewarded.

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Notes

1. MSSs grouping idioms or phrasal verbs are not included.
2. Ranks only reflect the numbering used in the dictionary in MEDAL and COBUILD. In LDOCE, all senses, whether they be major (MSS) or minor (mSS) subdivisions, are numbered successively, while in CALD and OALD the senses are not numbered.
3. This category, which groups MSSs 6 and 9, is labelled 'link verb uses' in COBUILD.
4. For more information on the contribution of learner corpora to monolingual learners' dictionaries, see De Cock & Granger forthcoming.

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Appendix 1: Illustrations of the major semantic subdivisions for the entry *make*

Meanings	Examples
1. Create/produce	*They make compost out of all kinds of waste* (COBUILD) *She has made several movies* (OALD)
2. Do/say/perform	*We must make a decision by tomorrow* (CALD) *It's time we made a start* (OALD)
3. Cause/cause to be/to appear/ to happen	*The wind is making my eyes water* (CALD) *The company accounts have not yet been made public* (CALD) *She always makes me laugh* (OALD)
4. Force	*You can't make him go if he doesn't want to* (CALD)
5. Earn/get money	*We need to think of ways to make money* (OALD)
6. Give a total	*Four and two make eight* (sic!) (MEDAL)
7. Calculate	*I make that $150 altogether* (LDOCE)
8. Cause to succeed/to be perfect	*Those little bows round the neck really make that dress* (CALD)
9. Have the right qualities for	*It will make a good book* (COBUILD)
10. Reach a place/arrive	*At this rate we won't make York before midnight* (MEDAL)
11. Achieve sth	*We've made our target of 10,000 sales this month* (MEDAL)
12. Appoint	*She made him her assistant* (OALD)
13. Cook	*John was making breakfast in the kitchen* (LDOCE)
14. Mark/hole/etc.	*Make a hole in the paper* (LDOCE)
15. A bed	No example
16. Arrange	*I've made an appointment for you with the doctor for tomorrow morning* (MEDAL)
17. Represent	*You have made my nose too big* (OALD)
18. Sports score	*Surrey had made 92 by lunchtime* (LDOCE)