Applied Linguistics 22/2: 173–195

The Grammatical and Lexical Patterning of MAKE in Native and Non-native Student Writing

[1]BENGT ALTENBERG AND [2]SYLVIANE GRANGER

[1]Lund University, Sweden,[2]Université Catholique de Louvain, Belgium

This article investigates EFL learner use of high frequency verbs, and in particular use of the verb MAKE, a major representative of this group. The main questions addressed are: do learners tend to over- or underuse these verbs? Are high-frequency verbs error-prone or safe? What part does transfer play in misuse of these verbs? To answer these questions, authentic learner data has been compared with native speaker data using computerized corpora and linguistic software tools to speed up the initial stage of the linguistic analysis. The article focuses on what proves to be the two most distinctive uses of MAKE, viz. the delexical and causative uses. Results show that EFL learners, even at an advanced proficiency level, have great difficulty with a high frequency verb such as MAKE. They also demonstrate that some of these problems are shared by the two groups of learners under consideration (Swedish- and French-speaking learners) while others seem to be L1-related. In the conclusion, the pedagogical implications of the study are discussed and suggestions made for using concordance-based exercises as a way of raising learners' awareness of the complexity of high-frequency verbs.

By focusing on the grammatical and lexical patterning of the verb MAKE in a computerized corpus of EFL writing, we aim to throw some light on the use of high-frequency verbs by EFL learners. As the analysis is computer-aided, we also aim to assess the usefulness of linguistic software tools for this type of study.

1. HIGH-FREQUENCY VERBS IN EFL

All languages seem to have some basic verbs that are used again and again in discourse and consequently turn up early in frequency lists. In English, for example, we are likely to find the following fifteen verbs (lexemes) topping any corpus-based list of high-frequency verbs (disregarding BE and modal auxiliaries), although their rank order may vary according to medium and text type (see Svartvik and Ekedahl 1995):

HAVE	DO	KNOW	THINK	GET
GO	SAY	SEE	COME	MAKE
TAKE	LOOK	GIVE	FIND	USE

High-frequency verbs have several characteristics that make them especially interesting in a cross-linguistic perspective (cf. Viberg 1996):

- they express basic meanings and tend to dominate different semantic fields;
- they have high-frequency equivalents in most languages;
- they are characterized by a high degree of polysemy, caused by two kinds of meaning extension:
  - one universal tendency creating more general, abstract, delexicalized or grammaticalized uses,
  - various language-specific tendencies resulting in specialized meanings, collocations, and idiomatic uses;
- they tend to be problematic for foreign language learners.

The last point is undoubtedly a result of the other characteristics. Despite fundamental semantic similarities across languages, high-frequency verbs have developed many language-specific differences which make them treacherous for foreign language learners.[1] The literature on the use of high-frequency verbs by EFL learners contains two seemingly contradictory observations. Several studies point to an overuse of these verbs by learners. Investigating Norwegian EFL learners Hasselgren (1994) notes that core words are hugely overused by learners who tend to cling on to them like 'lexical teddy bears'. She accounts for this overuse in the following way: 'core words—learnt early, widely usable, and above all safe (*because* they do not show up as errors) are hugely overused, even among learners sufficiently advanced to have been weaned off them' (1994: 250).

Similar findings have been made by Källkvist (1999: 130–34) for Swedish learners. The tendency towards overuse may be reinforced where the learner's mother tongue is a Germanic one, like Norwegian or Swedish, because of L1 transfer. However, the fact that French-speaking learners also overuse high-frequency verbs (see Granger 1996) would seem to indicate that the phenomenon is not entirely L1-related.

However, there also seems to be a tendency pulling in the other direction, i.e. towards underuse. High-frequency verbs, such as MAKE, TAKE, GIVE, PUT, etc. are often used as delexical verbs, i.e. they are used 'with nouns as their object to indicate simply that someone performs an action, not that someone affects or creates something. These verbs have very little meaning when they are used in this way' (*Collins Cobuild English Grammar* 1990: 147). According to Sinclair (1991: 79), 'many learners avoid the common verbs as much as possible, and especially where they make up idiomatic phrases. Instead of using them, they rely on larger, rarer, and clumsier words which make their language sound stilted and awkward'.

Sinclair does not back up his statement with corpus data, neither does he give any explanation for this avoidance. One plausible explanation might be the learners' awareness of the difficulty of these verbs. As pointed out by Allerton (1984: 33), the choice of these verbs is mostly arbitrary: the choice of *take* in *take a step* (rather than *make*, for instance) is semantically unmotivated

and therefore likely to be largely language-specific (compare English *take/ *make a step* and French **prendre/faire un pas*).

The error-proneness of these verbs in learner writing and speech has been highlighted in several recent EFL studies (Lindner 1994; Chi *et al.* 1994; Kanatani *et al.* 1995; Källkvist 1999; Lennon 1996; Howarth 1996). The wide range of mother tongue backgrounds involved in these studies (German, Chinese, Japanese, Swedish) shows that the phenomenon is a universal one, although the error types themselves seem to be partly L1-specific.

In this paper we aim to throw some light on EFL use of high-frequency verbs by focusing on one major representative of this group of verbs, the verb MAKE. The main questions we will investigate are: do learners tend to over- or underuse these verbs? What categories of meaning/use differentiate learner from native use? Are high-frequency verbs error-prone or 'safe' as Hasselgren suggests? What part does transfer play in misuse of these verbs? To answer these questions, we will compare authentic learner data with native speaker data using computerized corpora to speed up the initial stage of the linguistic analysis.

2. DATA AND METHODOLOGY

The computer learner corpus used for the study is made up of two corpus samples from the *International Corpus of Learner English* (ICLE) database. The first contains *c.* 170,000 words of essay writing by advanced French-speaking learners of English (henceforth FR). The second, which is comparable to the first in both size and text type, contains essays written by Swedish learners (henceforth SW). The learners are all 2nd or 3rd year university students of English. By selecting learner corpora matching our own mother tongue backgrounds, we hope to be in a better position to interpret learner errors and assess the importance of L1 transfer.

To compare EFL use with native English use, it is necessary to have a native speaker control corpus. For this purpose we used a 170,000 word sample from the *Louvain Corpus of Native English Essays* (LOCNESS) which contains argumentative essays written by native-speaker American students and is therefore fully comparable to the learner corpus. Table 1 gives the exact size of the corpora used.[2]

The learner essays, which are approximately 600 words long, are argumentative and non-technical in character and cover a variety of topics. The learners are EFL (not ESL) learners and their proficiency level is

Table 1: Learner and native-speaker corpora

	SW	FR	LOCNESS
Number of words	169,608	169,19	168,325
Number of essays	296	285	207

advanced. The native-speaker essays are comparable to the learner essays in terms of text type and range of topics but are slightly longer (about 800 words). For more information on the ICLE, see Granger (1998).

One of the major advantages of using computer corpora is that the data can be submitted to text handling software tools, thereby making it possible to automate part of the linguistic analysis. For this study, we have opted for *WordSmith Tools*,[3] a user-friendly and powerful package containing several analytical tools which are useful for phraseological studies. Among those we have mainly made use of are the lemmatizer, the concordancer, and the collocation display (see below). The methodology we have used is a combination of fully automatic analysis and minute manual investigation.

3. OVERALL FREQUENCY OF *MAKE*

As a first step in our analysis, we wanted to check whether EFL learners had a tendency to over- or underuse the verb MAKE in comparison with the native-speaker American students. To compute the frequencies in the three corpora—SW, FR, and LOCNESS—we used *WordSmith Tools*' lemmatizing facility, which enabled us to group all the inflectional forms of the lemma MAKE—*make*, *makes*, *making*, *made*. The advantage of using this facility is that it is then possible to create a concordance of the lemma MAKE rather than having to create concordances for each verbal form. The next step consisted in scrutinizing each concordance line to weed out irrelevant instances (such as compound uses—*a make-believe problem*, *hand-made pasta*). This done, we were able to compute normalized frequencies (occurrences per 100,000 words) of the verbal lemma MAKE in the three corpora.[4] The results are given in Table 2.

Table 2: Frequency of MAKE in NNS and NS student writing

Verb	SW	FR	LOCNESS
MAKE	354.3	234.6*	339.8

The table brings out a clear difference between the French-speaking and the Swedish learners. While the former underuse the verb MAKE, the latter use it a little more than the native-speaker students, though not significantly so. The term 'significantly' here and in the rest of the article is used in its statistical sense. All frequency differences across the samples were tested by means of the chi-square test, with 1 per cent as the critical level of statistical significance ($p < 0.01$). Statistically significant differences between each learner group and the native speaker control corpus (LOCNESS) are marked by an asterisk in the tables.[5] Detailed chi-square values are given in Appendix 1.

While this stage in the analysis yields some interesting quantitative results, a qualitative approach is necessary to explain them. A high-frequency verb

such as MAKE expresses a variety of meanings and enters into a whole range of structures and it is these differences in usage between learners and native speakers and between the two categories of learners that are of particular interest.

4. USES OF *MAKE*: MEANINGS AND PATTERNS

4.1 Eight major categories of use

The verb MAKE has many different meanings and uses which we grouped into eight major categories. Table 3 lists the categories and illustrates each of them with one or more typical examples.

Table 3: Major uses of the verb MAKE

1. Produce sth (result of creation)	*make furniture, make a hole, make a law*
2. Delexical uses	*make a distinction/a decision/a reform*
3. Causative uses	*make sb believe sth, make sth possible*
4. Earn (money)	*make a fortune, a living*
5. Link verb uses	*she will make a good teacher*
6. Make it (idiomatic)	*if we run, we should make it*
7. Phrasal/prepositional uses	*make out, make up, make out of*
8. Other conventional uses	*make good, make one's way*

We assigned every instance of MAKE in the three corpora to one of the eight categories of use. This task was greatly facilitated by *WordSmith Tools*' powerful concordance sorting facility, which allows up to three levels of left- and right-sorting. The sorting order we opted for (1st right, 2nd right and 3rd right) resulted in clusterings of similar types of sequences such as *make a difference*, *make it possible*, *make sure that*, which speeded up the subsequent categorization.

The results of the classification are given in Table 4. On the whole, the rank order of the main uses of MAKE is similar in the three corpora. Category 3—the causative category—is most common, followed by Category 2—the delexical category. The other categories are much less common and their rank orders vary somewhat across the corpora.

However, if instead of looking at rank orders, one considers the absolute frequencies of the different uses in the three corpora, striking differences are revealed. The delexical category—category 2—is used significantly less by the two groups of learners than by the natives. Another striking difference concerns category 3, which is significantly more frequent in SW than in FR and LOCNESS. In fact, there are nearly twice as many occurrences of causative structures in SW as in FR. Among the other categories, one can also

Table 4: Uses of MAKE *by EFL and NS students*

Category	SW	FR	LOCNESS
1. Produce	59*	19	27
2. Delexical	134*	134*	187
3. Causative	327*	174*	236
4. Money	25*	9*	56
5. Link uses	1	10	7
6. *Make it*	—	1	6
7. Phrasal	25	29	22
8. Other	30	21	26
Total	601	397*	567

note an overuse of category 1 (Produce) in SW and an underuse of category 4 (Money) in both SW and FR.

In the following sections, we will concentrate on the two most frequent categories—delexical and causative uses—which display striking differences across the corpora.

4.2 Delexical uses

The learner corpus data confirms Sinclair's underuse hypothesis: both the Swedish and French-speaking learners underuse delexical structures. This shows that the two observations noted in Section 1 are not really paradoxical. Learners may at the same time overuse a high-frequency verb and underuse its delexical structures.

To go a bit deeper into the use of this structure by native and non-native students, we examined all the collocates that occurred at least twice in each corpus. They are listed in decreasing order of frequency in Table 5.

One of the striking differences between the native speaker corpus and the two learner corpora lies in the frequency of 'speech' or 'verbal communication' collocates, i.e. words like *argument*, *claim*, *point*, *statement*, *case*, *comment*, *observation*, *reference* (printed in bold in the table). According to *Collins Cobuild English Grammar* (1990: 150–1), the verb MAKE is often used with nouns expressing speech actions, many of which have related reporting verbs (*to make a remark—to remark that*). The number of speech collocates (tokens) in the three corpora is given in Table 6.

The table shows that almost a third of the native speaker tokens belong to the category of speech nouns, while only 9–13 per cent of the learner instances do.

However, learners do not only underuse delexical structures, they also

Table 5: Main collocates of delexical MAKE *in SW, FR, and LOCNESS*

Swedish		FR		LOCNESS	
effort(s)	13	progress	16	decision	31
mistake(s)	10	use	11	mistake	16
change(s)	9	effort(s)	10	choice	10
choice(s)	8	difference	9	**argument**	9
sacrifices	7	choice(s)	8	**claim**	9
decision(s)	6	mistake(s)	7	**point**	8
impression	6	distinction	6	**statement**	8
progress	5	decision(s)	6	**case**	5
comparison	3	step	6	error	5
improvements	3	discoveries	6	effort	4
promises	3	sacrifices	4	**assumption**	3
statement(s)	3	poll	4	attempt	3
achievement(s)	2	**point**	3	contribution	3
agreements	2	comparison(s)	2	discovery	3
alterations	2	contribution	2	impact	3
attempt(s)	2	attempt	2	judgement	3
deals	2	contacts	2	advance(s)	3
discoveries	2	statement	2	appointment	2
generalization(s)	2	impression	2	attack	2
investment	2			calculation	2
notes	2			call	2
Research(s)	2			change	2
trip(s)	2			**comment**	2
				improvement	2
				love	2
				observation	2
				reference	2

misuse them. In fact, it is this category that accounts for the majority of learner errors with MAKE in the corpus. The following examples illustrate some typical errors in SW and FR.

[1] We have to *make* a **balance** between material comfort and pleasure (FR) (correct form: *strike/find*)

Table 6: Number of 'speech' collocates of delexical MAKE

SW		FR		LOCNESS	
n	%	n	%	n	%
18*	13	12*	9	55	30

[2] If I *made* a **poll** among the Belgian population . . . (FR)
(correct form: *carry out/conduct*)
[3] When man *makes* a **step**, he wants to go further . . . (FR)
(correct form: *take*)
[4] The idea rose of *making* an **end** to them . . . (FR)
(correct form: *put*)
[5] we started using nature as a source of profit without considering the serious **harm** we were *making* (SW)
(correct form: *do*)
[6] we've got to . . . use and develop technology and *make* scientific **research** (SW)
(correct form: *do*)
[7] Sweden has to fulfil the **requirements** *made* by EU (SW)
(correct form: *lay down*)

All these examples illustrate cases where the verb MAKE should be replaced by another verb.

The errors are partly interlingual and partly intralingual. Examples [2] and [3] have corresponding structures with FAIRE in French, but examples [1] and [4] do not. Similarly, examples [5] and [6] reflect corresponding structures with GÖRA in Swedish, while [7] does not. In addition, both [5] and [6] illustrate the difficult choice between MAKE and DO facing EFL learners.

The following examples illustrate other types of error involving delexical structures:

[8] . . . to attract the audience mainly in order to *make* **benefits** . . . (FR)
(correct form: *make profits*)
[9] . . . spacecraft which really *makes* **impression** on our Johnny . . . (FR)
(correct form: *make an impression*)
[10] Because there is so little communication over the border, so few living in the south that *make* **visits** to the north . . . (SW)
(correct form: *visit/explore the north*)

In [8] it is the noun collocate which is incorrect. In [9] the article is missing. Both structures are directly transferred from French [*faire des bénéfices* and *faire impression sur*]. In [10] the Swedish learner has not understood the fine difference in meaning between the delexical construction *make/pay a visit* and the simple verb *visit*.

4.3 Causative uses

While the delexical use of MAKE creates similar problems for the Swedish and French-speaking learners, with underuse and collocational misuse as a result, the causative use of MAKE brings out a clear difference between the two learner groups.

Grammatically, causative MAKE is a complex-transitive verb involving three types of object + complement construction: adjective structures (*make something possible*), verb structures (*make somebody realize something*) and noun structures (*make somebody a star*). The distribution of these types in the three corpora is given in Table 7.

Table 7: Causative uses of MAKE

Complement	SW	FR	LOCNESS
adjective	179*	98(*)	130
verb	125*	67	80
noun	23	10*	26
Total	327*	174*	236

The figures point to clear differences in the use of these types by the Swedish and French-speaking learners. While the Swedish learners show a significant overuse of adjective and verb structures, the French-speaking learners reveal a consistent underuse of causative MAKE, especially noun and adjective structures. As the noun complement structures are comparatively infrequent in the material, we will concentrate our analysis on the first two types of structure.

Adjective structures

The Swedish learners' overuse of causative MAKE with adjective complements can partly be explained as a result of positive transfer from the corresponding Swedish construction with GÖRA (cf. Eng *make* X *happy* = Sw *göra* X *lycklig*). However, it can also be seen as an effect of overgeneralization of the target pattern. Indeed, the parallelism between the two languages in this respect is so obvious, and the English construction so easy to use, that it is natural to suspect that the Swedish learners are enticed to employ the semantically 'decomposed' MAKE + sb/sth + Adj pattern even in cases where a native writer would prefer a more 'synthetic' causative verb alternative. This learner strategy is supported by the fact that there are very few clear Swedish errors in this category but a number of rather clumsy constructions. This is illustrated in the following examples, where causative verb constructions were put forward by native speaker informants as more natural alternatives.

[11] The use of the plastic wrap not only increases the garbage mountain, it also *makes* the air **polluted** . . . (*pollutes the air*)
[12] . . . technology will never *make* imagination and dreams **unnecessary** . . . (*replace*)
[13] I love the way the differences between men and women are blurred, or even *made* **non-existing** (*eliminated*)

It seems then that the Swedish overuse of MAKE + Adj constructions is a combined effect of interlingual and intralingual forces: both languages have a dominant pattern with equivalent high-frequency verbs (MAKE/GÖRA), but they also have alternative constructions with single causative verbs that are often lexically specific and consequently more difficult for learners. The importance of such alternatives is clearly borne out in translations where Swedish GÖRA + adj is rendered by synthetic English verbs in nearly a quarter of the cases (for example, *göra möjlig* 'make possible' → *enable*, *allow*, *let*, *permit*; *göra förvånad* 'make surprised' → *surprise*, *astonish*; *göra generad* 'make embarrassed' → *embarrass*; *göra ren* 'make clean' → *clean*) (see Altenberg, forthcoming). Learners who are unfamiliar with such alternatives are likely to overuse the dominant target pattern and treat it as a lexico-grammatical 'teddy bear', especially if it is easy to transfer from their native language.

Another indication of this strategy is the Swedish learners' fondness for the constructions *make it (im)possible (for sb) to* and *make it easy/easier (for sb) to*. Both have exact equivalents in Swedish and both can be replaced by causative verb constructions in English (for example, *enable sb to*, *prevent sb from*, *facilitate sth*). These patterns are greatly overused in SW and can almost be said to have the status of prefabricated structures.

In sharp contrast to the Swedish learners' overuse of the causative MAKE + adjective construction, there is a striking underuse of the construction by French learners, for which there are two likely explanations. The first is that MAKE does not in this case correspond to its prototypical equivalent *faire* but to another causative verb, *rendre* (*make possible* = *rendre*/**faire possible*) and the second is that the *rendre* + adjective construction seems to be less dominant than its English counterpart with MAKE. In fact bilingual data indicate that MAKE + adj is only likely to be translated by *rendre* + adj in *c.* 20 per cent of the cases, other alternatives being to use synthetic verbs (*make clean*: *assainir*; *make stronger*: *renforcer*) or verb + noun patterns (*make accessible*: *faciliter l'accès*; *make more transparent*: *accroître la transparence*).

While the high degree of congruence between the English and the Swedish causative + adjective structures accounts for Swedish learners' overuse of this construction, the much more blurred correspondence between the English and French structures helps explain French learners' underuse.

Verb structures

As to causative MAKE with a verb complement, a semantic analysis of the verb used after MAKE proves enlightening. The verbs can be subcategorized into three main semantic categories: relational (*seem*, *appear*, *become*), mental (*think*, *realize*, *understand*) and actional (*work*, *pay*, *change*). The distribution of these categories in the three corpora is given in Table 8.

Table 8: Causative MAKE with verb complements: semantic types of verb

Types	SW		FR		LOCNESS	
	n	%	n	%	n	%
Relational	4*	3	5*	7	25	31
Mental	65*	52	31	46	28	35
Actional	56*	45	31	46	27	34
Total	125*	100	67	100	80	100

The table indicates both similarities and differences between the learner groups in comparison with the native writers. While the three verb categories are about equally common in the native students' writing, both learner groups show a significant underuse of relational verbs. Thus, while a third of the verb structures in the native corpus involve relational verbs, only 3–7 per cent of the learner structures do. Examples such as the following are conspicuously missing in the learner corpora:

[14] . . . they are lying to their consumers by *making* their product **seem** more intriguing.
[15] This turnabout is an effort to *make* animal research **appear** to be more ethical to animal rights activists.

On the other hand, the learner groups differ clearly in their use of mental and actional verbs. While the French-speaking learners use these categories to the same extent as the native writers, the Swedish learners significantly overuse them. Their treatment of these categories is strongly reminiscent of their use of the adjective structures illustrated above: the learners give the impression of painstakingly trying to convey their meanings using the process of semantic primitives as building blocks instead of using single verbs or more appropriate causative verbs. The following examples illustrate what seems to be an almost mechanical use of the MAKE + verb pattern in cases where a single causative verb would be more appropriate. They all reflect a corresponding Swedish structure with the causative verb FÅ, which can be used with practically any kind of verb complement:

to make its inhabitants open their eyes (→ *to open its inhabitants' eyes*)
make people come closer to each other (→ *bring people closer*)
the differences are made to vanish (→ *are eliminated*)
pressure from the outside to make us change (→ *change us*)
the larger part of the population of the earth are made to do with less (→ *are forced to do with less/have to do with less*)

Although the French-speaking learners do not significantly overuse these categories, their treatment of MAKE with actional and mental verbs often seems mechanical and clumsy, and many of the examples give the impression of the same 'decompositional' strategy as used by the Swedes. The following examples from FR illustrate this phenomenon:

earn money and make the family live (→ *and support the family*)
this makes your fears diminish (→ *this reduces/allays your fears*)
each movement makes him suffer (→ *causes him to suffer*)
music can make you earn a lot of money (→ *can help you to earn a lot of money*)

Nearly all the French structures are directly translatable into a French causative structure with FAIRE, which can be used with the full range of actional verbs.

The frequent use of this type of structure by learners may be partly teaching-induced. Most grammar courses focus on the verb MAKE in the section on causative structures. Little is said about the other causative verbs: CAUSE, HELP, ALLOW, ENABLE, HAVE, GET, etc. It is very difficult to find a good description of the usage differences between these verbs.

To conclude, the Swedish and French-speaking learners' use of causative MAKE presents a rather complex picture. Unlike delexical MAKE, the causative uses of MAKE bring out several striking differences between the two learner groups. We have tried to explain the learners' performance as the result of several factors—interlingual, intralingual, and inadequate teaching. Broadly speaking, we have suggested that cases where both learner groups deviate significantly from the native writers may reflect intralingual difficulties, while cases where only one of the learner groups deviates from the native writers may indicate interlingual problems, with positive or negative transfer from L1 as a result. However, with learner data limited to only two national groups and in the absence of good contrastive descriptions of causative constructions in the languages involved, these explanations can only be very tentative. This is especially obvious in cases where alternative 'synthetic' single-verb constructions compete with the dominant 'analytic' pattern, in L1 as well as in L2. Hence, one important conclusion to be drawn from this part of the study is that there is a need for a wider range of learner data and detailed corpus-based contrastive studies to supplement the learner data examined here (see Granger 1998).

5. *WORDSMITH TOOLS*' COLLOCATE DISPLAY

Our analysis of the collocability of MAKE has been largely manual. This approach was possible—though time-consuming—because our corpora were quite small. A manual collocate analysis of larger learner corpora would be impracticable. In this section we will compare the results of our manual study with results based on *WordSmith Tools*' Collocate Display. This tool displays the words adjacent to a search word within a collocation 'horizon' (or span) which can go up to 25 words on either side. The default is 5 to the left and 5 to the right. Table 9 gives part of the collocate display for MAKE in the French learner corpus, with the default setting of five words in either direction. The collocates of MAKE are listed in frequency order in the second column, preceded by their rank number and with the search word MAKE itself at the top of the list. The third column gives the total number of times the collocate co-occurred with MAKE in the corpus. The following columns (6–16) give a breakdown of the total frequency: first, the sum of all occurrences to the left and right of MAKE (columns 4–5), then the frequencies for each position to the left and to the right of MAKE—from L5–L1 (5th–1st position to the left) to R1–R5 (1st–5th position to the right). The centre position, representing the search word MAKE itself, is indicated by a star.

The tool is fast and very user-friendly and is therefore a good starting-point for identifying collocates in computer corpora. However, it has some limitations that researchers ought to be aware of.

First of all, it is not possible to use the collocate display with lemmatized entries. As we really wanted to use the tool, we found a way of going round this difficulty, not very scientific perhaps, but it works![6] We used the 'search and replace' tool in *MS Word* to replace all instances of *makes/making/made* by *make* and then ran the collocate display on the new text file.

Other difficulties arise from the fact that (a) the Collocate Display only identifies word forms as collocates, not lemmas (cf. Table 9: the plural form *efforts* is separate from the singular form *effort*); (b) it does not separate homographs (cf. Table 9: *order* could be a verb, a noun, or part of the complex conjunction *in order to*); (c) it displays potential collocates, i.e. words which occur frequently in the span of MAKE, not all of which are 'constructional' collocates of MAKE (cf. the function words and the topic-dependent noun *Europe* in Table 9). This is easy to demonstrate. In Table 10 some items selected from the LOCNESS collocate display are contrasted with their constructional (i.e. object) uses in the corpus. Column 2 shows the *WordSmith Tools* Collocate Display figures, column 3 shows the frequencies of the constructional collocates of MAKE identified in a manual analysis of the corpus. The differences between these are sometimes considerable. For instance, a fully automatic collocate search brings up many more instances of *argument* than a manual analysis because it does not differentiate between cases such as [16] where *argument* is a constructional collocate of MAKE and [17] where it is not.

Table 9: WordSmith Tools' Collocate Display for MAKE

N	Word	Total	Left	Right	L5	L4	L3	L2	L1	*	R1	R2	R3	R4	R5
1	MAKE	425	6	7	0	1	5	0	0	412	0	0	5	1	1
2	THE	205	82	123	17	30	18	16	1	0	44	13	14	31	21
3	AND	97	50	47	8	11	9	8	14	0	1	5	15	11	15
4	THAT	82	48	34	10	12	11	10	5	0	1	7	15	8	3
5	THEM	57	12	45	4	0	2	6	0	0	28	0	2	10	5
6	PEOPLE	47	18	29	3	3	3	4	5	0	17	6	2	2	2
19	EUROPE	23	23	11	12	4	3	1	3	0	2	2	1	5	2
34	ORDER	14	8	6	0	0	0	8	0	0	0	2	2	1	1
48	EFFORTS	10	7	3	1	1	2	1	2	0	0	2	1	0	0

Table 10: Automatic vs manual collocate analysis of MAKE *(LOCNESS)*

Collocate	Automatic	Manual
argument	5	9
point	12	8
statement(s)	12	8
profit	6	7
attempt	5	3

[16] Yet, to **make** an even stronger *argument*, these proponents for adoptive parents should state why this is a bad court decision and find other examples.
[17] The goal in this type of *argument* is to **make** the public aware of the truths of nuclear power.

However, these difficulties do not detract from the general usefulness of the tool. On the basis of contrasted collocate displays such as those shown in Table 11, which lists the 50 most frequent collocates in the three corpora, it is possible to find some of the relevant collocate differences between the three corpora.[7] The collocate *possible*, for instance, occurs much more frequently in both learner corpora than in the NS data. *Decision(s)*, on the other hand, occurs much more frequently in the NS corpus (44 times) and is used both in the singular and plural, whereas in the French learner list only the singular features (5 occurrences) and in the Swedish learner list both singular and plural forms are completely absent.

However, as the collocates are not ordered in any systematic way except by frequency, the analyst will find it very difficult to see the wood for the trees. Also, as rightly pointed out by Stubbs (1995: 249), the 'occurrence of any single word form may be quite low, and will be missed in a simple list of descending frequencies. What is significant is the summed frequency of semantically related items; and this can be spotted only by a human being.' Using a computer-aided yet largely manual approach, we were able to classify the occurrences of MAKE into grammatical and semantic categories. This in turn enabled us to make some generalizations about the collocates which are potentially very useful for teaching purposes, such as—for delexical structures—the frequency of speech noun collocates and—for causative structures—the frequency of relational verb collocates and the restrictions on actional verb collocates. This description in terms of 'semantic prosody'[8] would be much harder to achieve with a fully automated method.[9]

Table 11: Top 50 collocates of MAKE *in decreasing order of frequency*

SW		FR		LOCNESS	
people	43	people	47	people	42
possible	**28**	Europe	23	money	39
immigrants	25	progress	21	**decision**	**23**
easier	21	**possible**	**20**	life	20
money	20	think	16	mistake	16
world	20	world	14	easier	16
society	19	order	14	argument	15
way	17	use	13	better	15
feel	16	new	12	seem	14
think	16	difference	12	students	13
Swedish	16	like	11	society	13
life	16	money	11	other	12
want	15	television	10	feel	12
technology	14	efforts	10	point	12
effort	13	dream	10	right	11
new	13	aware	9	**decisions**	11
change	13	European	9	lives	11
dreams	13	easier	9	year	11
time	13	life	9	good	11
like	11	man	9	others	10
try	11	other	8	work	10
mistake	10	good	8	difference	10
things	10	fiction	8	family	9
man	10	mistake	8	world	9
aware	10	profit	8	like	9
different	9	believe	8	claim	9
changes	9	clear	8	women	8
thing	9	important	7	important	8
part	9	choice	7	use	8
living	9	try	7	think	7
important	9	work	7	person	7
use	8	countries	7	states	7
better	8	imagination	7	**possible**	**7**
good	8	country	7	statement	7
realize	8	discoveries	6	computers	7
order	8	men	6	drug	7

SW		FR		LOCNESS	
place	7	live	6	day	7
sure	7	understand	6	television	7
reader	7	women	6	available	7
able	7	unification	5	case	7
difference	7	united	5	aware	7
film	7	programmes	5	want	7
lives	7	draw	5	strong	7
love	7	**decision**	**5**	effort	7
example	7	community	5	system	6
impression	6	part	5	things	6
Sweden	6	mind	5	take	6
hard	6	situation	5	choices	6
country	6	keep	5	different	6
friends	6	children	5	marijuana	6

6. CONCLUSION

Second language acquisition (SLA) research makes use of a variety of data types. Ellis (1994: 670) classifies them into the following categories: natural language use data, elicited language use data, metalingual judgements, and self-report data. Recent SLA studies have clearly favoured the last three data types to the detriment of natural language use data. While more experimental data offers the obvious advantage of allowing greater control over the variables that influence performance, it also has a series of disadvantages, the most serious of which is the unnaturalness of learner productions due to the artificiality of the experimental situation. Learner corpus data gives SLA researchers an ideal way of redressing the balance. It constitutes a new type of performance data which, unlike the decontextualized catalogues of errors from the Error Analysis era, offers a valuable view of learners' interlanguage (both errors and non-errors).

In addition, the fact that learner corpus data is in machine-readable form makes it possible to analyse much more data than before. For the first time ever, it is now possible to conduct large-scale comparative analyses of the interlanguage of different learner populations and native speaker groups and thus uncover their distinguishing features.

This is exactly what this study has aimed to do with regard to the use of a high-frequency verb like MAKE. Results show that EFL learners, even at an advanced proficiency level, have great difficulty with a high-frequency verb such as MAKE. Delexical uses prove to be particularly treacherous, but even

causative structures, which might at first appear pretty 'safe', turn out to cause problems as well.

These results have interesting pedagogical implications because although high-frequency verbs are encountered very early in instructional programmes, once they have been taught, they tend to be neglected. This is particularly unfortunate because these verbs are extremely complex and learners are at a risk of having only a very crude knowledge of their grammatical and lexical patterning. We can only agree with Lennon's (1996: 23) suggestion that 'teaching at the advanced level should aim not only to increase the word store but also to flesh out the incomplete or 'skeleton' entries which even advanced learners may have for high-frequency verbs.' In view of the influence of transfer on the learners' use of these verbs, we also agree with Lennon that learners would benefit from 'consciousness raising as to areas in which lexico-semantic divisions do not correspond in L1 and L2' (Lennon 1996: 35).

Concordance-based exercises extracted from native corpora are a useful resource for raising advanced learners' awareness of the structural and collocational complexity of high-frequency verbs. For instance, learners could be asked to scan the concordance lines reproduced in Appendix 2 to draw up a list of the major collocates of delexical MAKE. This awareness exercise would then be followed by a consolidation exercise in which learners are asked to fill in the blanks in corpus excerpts from which common collocates of MAKE (*decision*, *mistake*, *claim*, *argument*, *effort*, etc.) have been removed. Such exercises would increase the learners' 'depth of processing' and hence hopefully their degree of retention of the collocates.

(Revised version received July 2000)

ACKNOWLEDGEMENTS

We would like to thank Martin Bygate and two anonymous reviewers for their insightful comments on an earlier version of the article.

APPENDIX 1: CHI-SQUARE VALUES

All frequency differences across the samples have been tested by means of the chi-square test, with 1 per cent ($p < 0.01$) as the critical level of significance. Absolute frequencies of MAKE were related to the total number of words in each sample. Non-significant values are enclosed within parentheses.

Table 2A

	SW vs LOCNESS	FR vs LOCNESS	SW vs FR
MAKE	(0.74)	30.77	41.07

Table 4A

	SW vs LOCNESS	FR vs LOCNESS	SW vs FR
Causative MAKE	14.03	9.68	46.28
Delexical MAKE	9.14	9.01	(0.004)
Produce MAKE	11.66	(1.43)	20.40
Money MAKE	12.09	34.21	7.48

Table 6A

	SW vs LOCNESS	FR vs LOCNESS	SW vs FR
Speech collocates	19.03	27.91	(1.18)

Table 7A

Causative MAKE	SW vs LOCNESS	FR vs LOCNESS	SW vs FR
adjective	7.39	(4.65)*	23.46
verb	9.53	(1.21)	17.36
noun	(0.20)	7.19	5.08

*Significant at the 5% level ($p < 0.005$)

Table 8A

Semantic type	SW vs LOCNESS	FR vs LOCNESS	SW vs FR
relational	15.36	13.43	(0.11)
mental	14.43	(1.03)	11.95
actional	9.91	(0.25)	7.12

APPENDIX 2: CONCORDANCE OF DELEXICAL *MAKE*

1 ɜ expensive to buy, to install and to use. Whether you are **making *a call*** from the cellular phone or receiving a call, it costs a lot of money. Although mc
2 ıe use of hard facts. It is quite hard for any author to even **make *a case*** supporting the teaching of new age ideas when there really is no exact definitic
3 the responsibility of the white student as the black one to **make *a change,*** separating the two from each other will not solve anything. Only in integrati
4 y on minorities and this provides us with an opportunity to **make *a change.*** The graphic nature of the works show us how society exists outside of our
5 ɜnd Robert H. MacNaughton say that, . Still other authors **make *a claim*** against the use of corporal punishment, but never say what corporal punishm
6 ɜtion about censorship in protection with the children they **make *a claim*** that children come first. Due to their views, a proponent might rebuttal that sta
7 ce (such as the Exchange Theory), then sociologists can **make *a connection*** with these theories and water pollution. The reason behind this is that v
8 ollars and cents inwhich they were not even given time to **make *a counter*** offer. Some try to blame the city of Cleveland for their loss by saying they t
9 at should be considered by each and every individual. To **make *a decision*** this important to our lives, we must first decide what human life means to
10 lassroom. Teachers should be appreciated because they **make *a difference*** in almost every child's life. I know that my favorite teacher from high sch
11 ıist. The desire to be set apart is not to be isolated, but to **make *a difference.*** It is a form of escape that is unattainable by the inexperienced characte
12 ɜrial wealth or spontaneous gratification, but a freedom to **make *a difference.*** Elie Wiesel pointed out that his autobiographical work Night was written
13 er knows exactly what is being fought, the reader cannot **make *a firm*** decision to heed or to disregard the pleas of opponents to corporal punishment
14 ɔral punishment? Until the opponents come together and **make *a firm,*** decisive argument, many more school-age children can be subjected to the padd
15 ıgonizing ailment. Patients faced with euthanasia have to **make *a hard*** decision of whether or not to end his or her pain with death or to try to deal with
16 ɔoth" is how our justice system should work. If somebody **makes *a horrible*** mistake of murdering someone else, then is it moral for the government to
17 no decrease in the use of marijuana. In fact marijuana is **making *a huge*** comeback, especially for high school and college students. The costs are g
18 ıts still live at home. The rules don't give you a chance to **make *a mistake*** so that you can learn from it. Resident halls are where your biggest rules a
19 ɤerything they need. There is no need for prayer. Voltaire **makes *a mockery*** of the monarchy by describing a scene of Candide at a table with six det
20 parents seem to rely on legality and morality. They could **make *a much*** more effective argument had they based their claim on examples rather than
21 ıe influences are the same. People dress certain ways to **make *a point,*** others dress in a way that has no particular meaning, that person just likes th
22 : the little boy he too was apprehended. I told this story to **make *a point.*** Now, if these two guys had just robbed the convenient store and got caught,
23 ɜsented by the opponents to the subject. In an attempt to **make *a strong*** case, the supporters of television executions have failed to give sufficient re
24 ɜness of the quote. Not only is the author responsible for **making *a strong*** claim, he must also supply reasons that support his claim. Methvin supplie
25 ue fighting until its use is totally abandoned. If they fail to **make *a stronger*** case, their fight will never be won, or will not be soon coming. So, were yc
26 workers becomes more equal, they will not be judged as **making *a valuable*** "contribution to the society they live in."
27 its genetic knowledge. This short history would therefore **make *a very*** strong case against furthering genetic research by showing a consequence th
28 ıs lead to stereotypes and subtle prejudice. A parent may **make *a very*** subtle comment which reflects his prejudice beleifs; and overheard by the child
29 ɜn argument to be considered a strong argument, it must **make *an arguable*** claim and all of the evidence that the author presents must support the c
30 ve fallen short of a strong argument. It is common, when **making *an argument,*** to take a stand on a position and then defend that position unteeterin
31 ɔased itself on questions over value and consequence to **make *an attempt*** at determining if integration will improve or harm the education of children
32 ɔut never say what corporal punishment is. How can one **make *an effective*** argument without establishing what, exactly, one is fighting against? Witt
33 think that clothes are important and feel that they should **make *an effort*** to be "attractive and neat" (316). Someone who dresses "neatly and attractiv
34 e, it shows the inconsistency of our court system. Yet, to **make *an even*** stronger argument, these proponents for adoptive parents should state why t
35 much more convincing and acceptable. An easy claim to **make, *and one*** that frequently appears in arguments for the use of prayer in public school,
36 ot apply the same definition, several of the authors fail to **make *any attempt*** at defining. In his article "Classroom management and discipline alterna:
37 ɜ the most coveted difference between the sexes without **making *any kind*** of commitment, women disrespect men by calling them dogs because the,
38 develop from this consistent turmoil. For the homeless to **make *any permanent*** advances is virtually impossible in this unending cycle of chaos. Und
39 : to prove their statements. All the statements that people **make *are good*** statements that, with some thought, can be rationalized. The opponents sim
40 tic of a person and people need to know that. sometimes **make *bad mistakes*** when they find someone who's attractive, intelligent, and has a job. Th
41 thout regarding our wish(es). It is not an easy decision to **make. *But, it*** is our choice to make: this is our life, our death that we are talking about. There
42 ple of rhetorical site. Closely analyzing an audience, and **making *certain assumptions*** will help a writer in conveying their message more effectively
43 cars are driving down the street, children are playing and **making *constant trips*** back and forth to ths convenient store and generally, this in not a go
44 cularly vulnerable as young people being ,pressured into **making *decisions as*** to what they want to do the rest of their lives. Sometimes they already
45 ɔuter. What many people do not realize is that computers **make *errors all*** the time. Granted, it is the person who "told" the computer what to do that tr
46 ɔrrectly (another perhaps impossible computation), never **make *errors. This*** supposed reliability has left many workers out of work. The effects of this
47 & our advancing medical technology & medicine we can **make *even more*** discoveries as to how to prevent this killer. Without a doubt, one of the mc
48 hen it was more accepted there was no reason to hide it, **make *excuses for*** it, or try to justify it. Today, people have a hardert time just being openly p
49 ı should not be considered Nazis just for letting a woman **make *her own*** decision. The decision of abortion should be left entirely up to the woman. W
50 existence. By eliminating free practice of euthanasia (by **making *higher restrictions*** on euthanasia), the risk of violent and destructive euthanasia p
51 ɜsue is anything but selfish. The Ethnic-American writers **make *important contributions*** not only to their own race but just as importantly, to the hum
52 iority, but the choices that the individuals are expected to **make. *In Ralph's*** Story" and "The Problem That Has No Name" both the male and female c
53 e, be subject to whatever decision the woman decides to **make *in regard*** to her own body. In this proof biological aspects are once again consulted. A
54 etween the members of a platoon. The point that Pattullo **makes *is very*** sound. He reasons that without a feeling of comfort between the members of
55 evil since it is a mear piece of paper or coins and can not **make *judgements and*** decisions. It is the person whose judgements, decisions, and action
56 ld never be the way I expected it. At eighteen I needed to **make *life altering*** decisions with my mate on what our options were. We felt the right decisic
57 ır society towards a criminal's violent act. Humans do not **make *logical decisions*** when their thoughts are based upon rage. Individuals act on impuls
58 dy of subject matter. Voltaire attacks all of these. Voltaire **makes *many attacks*** on religion and state. He picks on everywhere Candide goes except E
59 h school diploma should state that you are old enough to **make *mature decisions.*** You can say that some kids that are eighteen and over do not hav
60 did not get pregnant being that she was so old, but we all **make *mistakes and*** she made a terrible one. If she was able to carry the child she should b
61 t to ask for information from professionals; 9. The right to **make *mistakes; 10.*** The right to choose not to assert yourself (Bloom, 24). These are the b
62 ɜad a long history of depression that led to her inability to **make *rational choices.*** If she had been thinking rationally as a mother she would have giv
63 longer have to spend hours trying to type their paper w/o **making *spelling errors,*** now they can focus their time on the writing and leave spelling erro
64 ; Zaitchik should examine his own conflict-free life before **making *such bold*** statements in the future. For as I believe, ethnic American literature, in
65 persuaded. In the case that the patient is incompetent to **make *that decision,*** the family should be allowed to intervene and persuade the doctors or
66 that the individual is not mentally or emotionally stable to **make *that decision.*** So, who is to decide whether a life is worth living? Who can project wh
67 ı a mistake in their past lives does not mean that they will **make *that mistake*** in the future. The past is past. Let it be. Nobody is perfect. Perhaps, we
68 r, I assumed that Parks and Weiss are knowledgeable in **making *that statement*** about grief. In no part of their essay do Ingram and Ellis give credı

NOTES

1 The deceptive cross-linguistic similarity of high-frequency verbs is also revealed in translations. This can be illustrated by a comparison of three common verb pairs in English and Swedish whose members are usually regarded as translation equivalents: the cognates GO/GÅ and GIVE/GE, and the prototypical 'creation' verbs MAKE/GÖRA. An examination of their 'mutual translatability'—i.e. the tendency of the members of each pair to be translated into each other—in the English–Swedish Parallel Corpus (see Aijmer *et al*. 1996), shows that they correspond in only about a third of the cases:

English ←→	Swedish	
GO	GÅ	35%
GIVE	GE	32%
MAKE	GÖRA	30%

In other words, although the members of each pair are generally regarded as cross-linguistic equivalents, they are in fact rendered by other verbs in the majority of cases in translations between the languages. (The figures for the first two pairs are from Viberg (1996: 161); the figures for MAKE/GÖRA represent their 'delexical' uses—see section 4.2.)

2 It could be argued that the corpora used are too small to produce stable results in frequency terms. It is true that each essay contains a limited number of occurrences of the variable under investigation, viz. MAKE. It should be borne in mind, however, that our focus of interest is not on the individual variation between the learners but on their behaviour as groups and on the differences between the total frequencies of MAKE, and certain uses of MAKE, across the groups (SW vs FR vs LOCNESS). Within that perspective, corpora of *c.* 300 essays of 500+ words should be large enough to give a reliable picture of the uses of MAKE in each student population.

3 For a review of the software, see Berber Sardinha (1996).

4 For the sake of comparison we also computed the frequencies of MAKE in three larger native standard corpora: the 1 million word LOB and Brown corpora and the 200 million word British National Corpus (BNC). The normalized frequencies (occurrences per 1,000 words) of MAKE in these corpora were 247 (LOB), 221 (Brown), and 213 (BNC), i.e. much lower than in LOCNESS. This difference is probably due to the fact that MAKE is a style-sensitive verb and that stylistic differences are ironed out in so-called balanced corpora such as LOB, Brown, and BNC, which contain a variety of genres. Although LOCNESS may not be an ideal standard of comparison in every respect, it was chosen as control corpus for this study because it ensures full comparability in terms of text type.

5 When the level of statistical significance is 5 per cent ($p < 0.05$), the asterisk is enclosed in parentheses.

6 We would like to thank Fanny Meunier who provided us with this brilliant idea.

7 Function words have been excluded from the lists.

8 The term 'semantic prosody' refers to the tendency for words to collocate with other words from a definable semantic set. Stubbs (1995), for instance, shows that the lemma CAUSE is overwhelmingly used with negative events such as problems, trouble, damage, death, pain, and disease.

9 In fact *WordSmith Tools* comes with a warning against using computer tools to replace the human researcher: 'The computer is an awful device for recognizing patterns. It is good at addition, sorting, etc. It has a memory but it does not know or understand anything . . . Nevertheless, the computer is a good device for helping *humans* to spot patterns and trends. That is why it is important to see computer tools such as WordSmith Tools in their true light. A tool helps you to do your job, it doesn't do your job for you' (Scott 1997: 7).

REFERENCES

Aijmer, K., B. Altenberg, and **M. Johansson.** 1996. 'Text-based contrastive studies in English. Presentation of a project' in K. Aijmer, B. Altenberg, and M. Johansson

(eds): *Languages in Contrast*. Lund University Press: Lund, pp. 73–85.

Allerton, D. J. 1984. 'Three (or four) levels of cooccurrence restriction.' *Lingua* 63, 17–40.

Altenberg, B. (forthcoming) 'Advanced Swedish learners' use of causative *make*. A contrastive background study' to appear in S. Granger, J. Hung, and S. Petch-Tyson (eds): *Computer Learner Corpora, Second Language Acquisition and Foreign Language Teaching*.

Berber Sardinha, A. P. 1996. 'Review: WordSmith Tools.' *Computers and Texts* 12.

Chi, A. M. L., K. Wong, and **M. Wong.** 1994. 'Collocational problems amongst ESL learners: a corpus-based study' in L. Flowerdew and A. Tong (eds): *Entering Text*. The Hong Kong University of Science and Technology: Hong Kong, pp. 157–65.

Collins Cobuild English Grammar. 1990. Collins: London and Glasgow.

Ellis, R. 1994. *The Study of Second Language Acquisition*. Oxford University Press: Oxford.

Granger, S. 1996. 'Romance words in English: From history to pedagogy' in J. Svartvik (ed.): *Words. Proceedings of an International Symposium*. Almqvist and Wiksell International: Stockholm, pp. 105–21.

Granger, S. 1998. 'The computerized learner corpus: a versatile new source of data for SLA research' in S. Granger (ed.): *Learner English on Computer*. Addison Wesley Longman: London and New York, pp. 3–18.

Hasselgren, A. 1994. 'Lexical teddy bears and advanced learners: a study into the ways Norwegian students cope with English vocabulary.' *International Journal of Applied Linguistics* 4: 237–60.

Howarth, P. 1996. *Phraseology in English Academic Writing.* Max Niemeyer Verlag: Tübingen.

Källkvist, M. 1999. *Form-Class and Task-Type Effects in Learner English. A Study of Advanced Swedish Learners*. Lund University Press: Lund.

Kanatani, K., K. Itoh, T. Noda, Y. Tono, and **K. Oikawa.** 1995. 'Teacher correction and lexical errors in EFL compositions.' Department of English Education, Tokyo Gakugei University: Tokyo.

Lennon, P. 1996. 'Getting 'easy' verbs wrong at the advanced level.' *IRAL* 34/1: 23–36.

Lindner, C. 1994. 'Unnaturalness in advanced learners' English: A corpus-based feasibility study.' Unpublished MA Dissertation, Albert-Ludwigs-Universität Freiburg.

Scott, M. 1997. *WordSmith Tools Manual*. Version 0.2. Oxford University Press. *http: // liv.ac.uk/~ms2928/wordsmit.htm*

Sinclair, J. 1991. *Corpus, Concordance, Collocation*. Oxford University Press: Oxford.

Stubbs, M. 1995. 'Collocations and semantic profiles. On the cause of the trouble in quantitative studies.' *Functions of Language* 2/1: 23–55.

Svartvik, J. and **O. Ekedahl.** 1995. 'Verbs in private and public speaking' in B. Aarts and C. Meyer (eds): *The Verb in Contemporary English. Theory and Description*. Cambridge University Press: Cambridge, pp. 273–89.

Viberg, Å. 1996. 'Cross-linguistic lexicology. The case of English *go* and Swedish *gå*' in K. Aijmer, B. Altenberg and M. Johansson (eds): *Languages in Contrast*. Lund University Press: Lund, pp. 151–82.

WordSmith Tools. 1996. Oxford University Press: Oxford.