

Lexically Based Grammar and Corpus

—based on The Bank of English at Birmingham University—

Michihisa Tsukamoto

1. Introduction

Grammar and lexis have been generally treated separately in pedagogic grammar. Grammar has been taught with the emphasis on structure such as the five major sentence patterns, tense, aspect, voice, subjunctive etc. In teaching lexis, the teacher has often taken up the meaning of words and fixed phrases such as *if it were not for ...*, *might as well* etc. Recent language analysis using an electronically-stored corpus has been applied to the study of word functions such as collocation, syntactic feature, pragmatic function. In this paper I argue the effectiveness of corpus for pedagogic grammar, especially for lexically-based grammar which emphasises the function of words. My material is based on The Bank of English¹⁾ (hereafter BOE), which is well known as the data base of *Collins COBUILD Dictionary of English Language*, consisting at present (1997 July) of 320 million words.

Before proceeding to the main subject, I would like to mention the advantages of using a corpus as an approach to establishing a pedagogic grammar.

1. Teachers can retrieve a specific lexical item or pattern with concordance lines by the KWIC (Keyword In Context) system from a vast bank of naturally-occurring language data. Concordance lines provide us with lexical information concerning collocation, grammatical patterns etc. and this approach is effective for grammar teaching. J. Sinclair mentions as follows in the foreword of *Grammar Patterns* (1996), 'During the early research days of Cobuild I became convinced that the meaning of a word was closely related to the choice of which words occurred nearby, and their position.' On the strong interrelationship between words, J.F. Firth (1957) had already written before 'You shall know a word by the company it keeps!' or 'The words under study will be found in 'set' company and find their places in the 'ordered' collocations.' Thus it can

be seen that the origins of lexically based grammar lie with Firth in the fifties.

2. Teachers can present raw data which are used in real, not invented, examples to students. It is possible for them to give highly objective answers to students using real language data. Any invented examples produced could sometimes sound unnatural.
3. Teachers can learn the frequency of vocabulary or usage. That is useful for syllabus design as to what kind of expression students should learn.

2. Collocation

Let us take the example of two adverbs, 'absolutely' and 'quite'. For learners, even if they realise that *absolutely* and *quite* are adverbs, expressing the notion as emphasis, it is difficult to grasp correctly which words collocate with those adverbs. However, they can obtain accurate usage information together with examples from a corpus.

The adjectives, pronouns and adverbs collocated with *absolutely* are basically divided into two meaning groups. One comprises the words which mainly express positive judgement or emotion, or which have the notion distinguished clearly: the other comprises the words which express negative judgement or emotion.

Positive Judgement or Emotion/ Clear Notion	<i>absolutely</i>	right/necessary/clear/certain/essential/ everything/fabulous/sure/brilliant/free/yes/ convinced/marvelous/superb/perfect
Negative Judgement or Emotion	<i>absolutely</i>	no/nothing/not/furious etc.

Looking at 'quite' we see it functions differently, in that it is used for words which have some range of degree and give mainly positive emphasis. Quite is often collocated with 'well, happy, good etc.', which do not collocate with *absolutely*. The collocation of *quite* goes as follows in frequency order.

<i>quite</i>	a lot/a few/different/a bit/well/sure/happy/clear/good/often/right/simply/clearly etc.
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The reference grammar books often say that *quite* has two meanings. One is a strong meaning (=completely), the other one is a weaker meaning (=fairly). (e.g. Ilson & Whitcut 1994) Sometimes the meaning of *quite* overlaps with *absolutely*. However, if we look up *absolutely* and *quite* in BOE, the collocated lexes are quite different.

Next we will let us the adjective *lovely* which is frequently used in everyday British conversation. (cf. Tsukamoto 1996) Some of its applications, although common expressions, do not immediately strike us as being correct or natural. One such example concerns 'lovely man', which is not referred to in any English Japanese dictionary. According to BOE, when *lovely* is used for humans, 75 examples of *lovely man* are found, occurring more often than *lovely lady* (44 examples) and *lovely woman* (29 examples). Furthermore, if we look up the concordance lines of *lovely man*, *lovely lady* and *lovely woman*, we see they are used for both physical beauty and a good personality or character. While, with *lovely man*, most of

the examples used express a good character and talk reminiscently in the past tense.

- (1) She laughed, and the taxi began to move away. He stood in the street and watched it go. He thought, What a *lovely* woman. What *lovely* legs. —British books
- (2) We have nothing against Mrs. Stephens. She is a *lovely* woman, but we don't see why a woman should get paid more than us for doing the same job. —Times
- (3) And then my school days, they were ... they were very happy. We used to have a schoolmaster by the name of Mr. MX. He was a *lovely* man. —British spoken

If we give our attention to the collocation with adjectives, *lovely big* occurs 22 instances, *lovely little* 109 instances, *lovely new* 25 instances, *lovely old* 77 instances. *Lovely* is used with small and old things or old people rather than new things or young people. That is, *lovely* is used with the objects which, or people who, give us a 'comfortable' impression: these objects or people tend to be beautiful, familiar or we have an attachment to them.

As Carter (1987: 54) points out 'it is important, too, to note that collocational ranges are not fixed to the same degree as grammatical patterns', it is difficult for learners to grasp accurately what words are collocated with a certain word. However, the frequency retrieved from a corpus offers us effective information about precise use of words and essential meaning. Furthermore, the collocation taking frequency into consideration is effective for indicating to students what kinds of expressions they should learn first.

There are some cases in which vocabulary, if not learnt in terms of collocation, is useful. For example, the noun *debt*. We can retrieve the following examples from the corpus. As there are some high frequency examples collocated with phrasal verbs, it will be difficult for students to use those expressions if they do not remember them as collocations.

pay off one's *debt* be in *debt* get [go/run] into *debt*
reduce a *debt* write off a *debt*

In *debt*, also, the following collocations used in a social context often occur. Some collocations are strongly connected with social context.

foreign *debt* bad *debt* the national *debt* bank *debt*
government *debt* long-term [short-term] *debt*

Condition is a similar example connected with social context.

living *condition* economic *condition* market *condition* trading *condition*
weather *conditions* medical *condition* critical *condition*

3. Verbal Patterns

On the verbal patterns *A Guide to Patterns and Usage in English* (1954) and *The Advanced Learner's Dictionary of Current English* (1963) are already well-known. The latter classifies verbs into 25 patterns and 80 groups. English-Japanese dictionaries, also, give the classification by verb patterns based on the five major sentence patterns. In the computer-driven corpus it is possible to get further information about the relationship between meaning and pattern, semantic prosody connected with a certain verb (cf. next chapter), each frequency pattern and so on. Let us investigate the pattern of *persuade* by using the concordance lines of the KWIC system. Let us locate 50 examples of lemma *persuade* (that is, all related inflected forms: persuade, persuades, persuading, persuaded) from BOE.

will have found it necessary to persuade Mansell that they can produce a
and the power of the professions to persuade people that they understand the
aren't entirely pure when I try to persuade you that they past year's
achieved it personally, how do we persuade others of the necessity of it? <p>
to millions of gardeners-was to persuade the water companies to adopt a
Mm # Cos people could actually erm persuade <MO1> <ZGY><FO1> you to overstep
government in Vilnius will have to persuade deputies that their concession is
20.11.90). He is now trying to persuade the party's 372 MPs to vote for
Mr Yitzhak Shamir, to try to persuade him to accept the American plan
shares to their borrowers may persuade Cheltenham # Gloucester members to
 <p> GERRY ADAMS can still persuade the IRA to hand over its weapons,
underwater organist. (Could we persuade jazzman Clarence 'Frogma' Henry'
of economic advisers, hoping persuade Germany industrialists, already
fishermen what to do, you have to persuade them; they are brought up to be
some time, but I finally managed to persuade Zorba's owner that she needed to
a little; something I can't seem to persuade anyone else to do. For one thing,
<p> The admiral then sought to persuade Congress that the department
This flawed reasoning attempts to persuade you that just because one event
from the state government and to persuade teachers to accept smaller salary
fierce public-relations campaign to persuade people that its trucks have always
has been in Damascus trying to persuade Syria to stiffen the rules by
man but was convinced he could persuade the jury that he had not followed
than the others. Mr Rao will try to persuade voters that he has been rooting
TV lost its franchise and power to persuade networks to take the cartoons. <p>
for the players and we had to persuade some committee members to mellow.
Enough people have been persuaded of its virtues to provide Mr Sam
and the public can be readily persuaded that it can sometimes make sense
been married before I was finally persuaded to leave family and the familiar
time bubble, and will not be persuaded to hurry. <p> On one occasion, we
But how can more companies be persuaded to take more of it? NARR: This
it may have been that threat which persuaded the hardliners to move now. <H>
on the fast breeder reactor and persuaded three experts from the Atomic
and councillors have yet to be persuaded the Budget is such good news for
persuaded to move, Ukraine must be persuaded to live up to its pledge to give
the oath of loyalty to the King had persuaded an entire regiment of militia to
to assign you here, but we persuaded him that we'd be honoured by the
the previous autumn he was already persuaded that the old norms should be
and Stalin, but Lenin was not persuaded. He was especially upset to learn
Chairwoman Takako Doi—probably persuaded a good number to vote against the
Leonid Kuchma, has only just been persuaded of the merits of market
company complains. It long since persuaded the United States trade
by a November profit warning persuaded at least one institution to sell
prices, and many women are being persuaded to pay for screening which is not

and the trustees will have been persuaded that a picture by the fashionable which are recognisable. <p> A mate persuades Icarus to run (unsuccessfully) Sir Alastair says the chances of persuading existing shareholders to part aid. Much of this will focus on persuading the international community to in articulating need, and persuading others, then they will acquire Lio's De Castitate, he set about persuading Pope John to set up a small in a few hundred atmospheres.) But persuading the electrons to break free of

'From the concordance lines '*persuade* + NOUN (usually person) + to', '*persuade* + NOUN (usually person) + that' are typical patterns of this verb. There are a few examples of '*persuade* + NOUN + of' and '*persuade* + NOUN'. In English-Japanese Dictionaries, the order of patterns is very different depending on the dictionary. One of the dictionaries refers to '*persuade* + NOUN + into' as a first pattern. These examples are only 23 instances out of the lemma: persuade 17005 instances. According to informants, they have a slightly archaic impression from this expression. Useful for students is the following usage description in *The Favorite English Japanese Dictionary*. 'If the persuasion is not accepted, we should say "I tried to persuade him to buy a new car, but he didn't [wouldn't]." (* I persuaded him to buy a new car, but he didn't [wouldn't].)' We can confirm '*tried to persuade*' is the most common pattern.

all prisons. <p> The ICRC tried to persuade the Slorc to reconsider its state of the art kit as they can persuade us to buy for them, but questions plot as a kind-hearted effort to persuade his uncle to take a rest. But the wickedly nerdish voice-over may not persuade me to buy the car but is a prime Mick Porter might have been able to persuade his girlfriend not to prostitute of this particular exercise is to persuade you to tarry and spend. But if officials had to go there to persuade the villagers to leave, but alarm signal. It might be hard to persuade the biotechnologists to accept China and the Soviet Union, will persuade North Korean officials to perhaps the secretary-general could persuade Saddam to leave Kuwait. But there talks, a concept Baker will have to persuade the Israeles to accept, but it may dispatched an official to Jordan to persuade them to resume trading, but Saddam five days in Baghdad attempting to persuade Iragi officials to extend the to carry on. Army officers tried to persuade everyone to leave this area. But her. He tried to restrain her, to persuade her to stay, but finally, when she always hoping that his flight would persuade the Dragoons to abandon their She went to Washington. I tried to persuade her to wait around, but Agnew was came in. He tried once more to persuade me to stay, but his heart wasn't You may find it difficult to persuade her to discuss them, but this from the fridge that wives were to persuade husbands to buy them. But the very at Vigo Bay in 1702 did help persuade Portugal and Savoy to join the Gow. I spent some tjme trying to persuade him not to go but he insisted on yesterday revealed: 'I tried to persuade Ron to sign Collymore. <p> But he admitted: 'I still hope I can persuade Mark to stay with us but there is launched a phone campaign to try to persuade drivers to work normally, but tough tour in France, might have persuaded another man to change, but not tough tour in France, might have persuaded another man to change, but not television to the Internet, has persuaded many companies to establish the straining sinews: they almost persuaded me to like football, <p> But a A halftime lead of 28-6 could have persuaded Valleys to ease off, but Diehards years ago, I never would have been persuaded to do this. But then I look at and a feeble attempt at wit that persuaded my husband to do the work, but I had not been paid. <p> Costa was to stay but Pinto refused to of argument, half of them were persuaded to travel but about fifty others

in the way in which she has persuaded the 'contra' rebels to West Germany's Chancellor Kohl who persuaded the Soviet leader to finally said he hoped the Iraqis could be persuaded to leave Kuwait peacefully, but prime minister, President Gorbachev persuaded the Supreme Soviet to accept a prime minister, President Gorbachev persuaded the Supreme Soviet to accept a union, it is vital that Russia be persuaded to sign, but Boris Yeltsin has list of wines a Frenchman might be persuaded to drink - but Greece has not yet Fedorov, the finance minister, persuaded him to reverse this. But Mr if Unionists can, someday, be persuaded to accept it, but, meanwhile, one, Orissa, might even be persuaded to think of privatisation. But regulation as the public can be persuaded to support. But it is emotionally Jimmy, a former rally driver, persuaded McRae to forfeit victory, but the they had left me alone I might have persuaded myself to give up. But now I don't shares and Northcliffe eventually persuaded WP to return. <p> But that row, of grovelling and belligerence I persuaded him to take no action. But that he says # When we moved here Rosie persuaded me to try some colour, but I was

However, *attempt to persuade*, *be to persuade*, *have to persuade*, *can be persuaded*, *might be persuaded* are also used in the context which means 'something is planned or realization may be possible, but may not be accepted.' The corpus discloses the main usage of a certain word and the detailed usage.

The patterns of *persuade* can be described as follows conforming to real use.

1. <persuade + NOUN / PRONOUN (usually person) + to infinitive>

It would be a good idea to *persuade* a friend to install it on their machine.

—Independent

<try to persuade ... but ...>

I vaguely tried to *persuade* him to come in but he refused.

—British magazines

<persuade + NOUN / PRONOUN + into NOUN/-ing> (a bit archaic)

Helena had managed to *persuade* him into an interview.

—British books

And I didn't think it was a good idea but she *persuaded* me into doing it.

—British spoken

<persuade + NOUN / PRONOUN (usually person)>

Mothers are often heard telling their children to 'eat your greens', but mine never had to *persuade* me.

—British magazines

2. <persuade + NOUN / PRONOUN (usually person) + that-clause>

Nancy *persuaded* the girl that she was not to blame.

—British books

<persuaded + NOUN (usually person) + of + NOUN>

I had to *persuade* him of his real worth.

—Guardian

4. Semantic Prosody

When we look at concordance lines, a certain word can sometimes co-occur with other words which have the same semantic consistency. This connective relation is called 'semantic prosody'. (Louw 1993) For example, the phrasal verb *set in* collocates with the subject that refers to an unpleasant state of affairs such as *rot*, *decay*, *malice*, *despair*, *ill-will* etc.

(Sinclair 1991). The following citations of the verb *undergo* are a random selection from the multi-word concordance.

the Nottinghamshire batsman, will undergo surgery later this month for a
 <p> Hamilton snr forced his son to undergo rehabilitation at a clinic in the
 the study also shows that women who undergo the treatment have a slightly
 that Overseas Project participants undergo fairly extensive preparation in
 some opportunity for exercise. They undergo bouts of depression but are in
 one's embarrassment when forced to undergo a museum security search and
 Before drugs are licensed they must undergo stringent tests to determine their
 more awful things that these kids do undergo. And one of the terrifying things
 state. What humans tend to do is to undergo a stimulus or stress which
 due to the fact that men do not undergo hormonal changes of such acuness
 and abandonment that so many mystics undergo, prompting some to speak of dark
 yakuza, these social rejects must undergo an apprenticeship that usually
 his country 65 times must need, to undergo the day-to-day process of
 shape, they at least haven't had to undergo the rigid training regimes of the
 of the oldest people in the world to undergo a total hip replacement - marking
 theme song # <p> Segment # 9: NATO Undergoes Transformation <p> EDWARDS: This
 many is that fresh plutonium slowly undergoes radioactive decay, making it
 and with an image that is undergoing a transformation - Janis Ian
 has regained consciousness after undergoing surgery to relieve pressure to
 Lofty Gothic church, recently undergoing restoration with competition
 with blandness in the '80s, is now undergoing a renaissance. Admittedly he no
 countries, he says, are already undergoing a kind of perestroika. MURPHY: I
 think thin. <p> While England were undergoing a vigorous, rigorous training
 <p> Aerogel pellets are now undergoing trials in windows and
 this xountry is —is really going— undergoing an economic restructuring, which
 of women would find themselves undergoing unnecessary surgery on the basis
 mad at her hair. Like me, she was undergoing a trying period, years long; she,
 Psychotherapy Research Project undergoing traditional cognitive-behavioral
 announced that passengers who are undergoing a sex change would be allowed to
 engineering skill and currently undergoing a & pound; 1.5 million improvement
 have had a reconciliation and are undergoing counselling to save their 13-year
 of-the-art shoes, Camper has itself undergone a facelift. The red-and-white
 which was built in the 1960s, had undergone an extensive renovation recently.
 Aston Villa defender has recently undergone a hernia operation but it's an op
 policy under Mr Shevardnadze has undergone a sea change, pulling back forces
 one of the oldest patients to have undergone the operation. <p> A bulletin
 both morality and rationality have undergone a fundamental transformation. The
 convincing signs of having undergone the prolonged agonies of
 life. One study of women who had undergone hysterectomy and removal of their
 that many American companies have undergone. Japanese banks have yet to admit
 industries. <p> Having successfully undergone open heart surgery in middle age,
 a good enough reason." <p> Fry has undergone therapy in America and has been
 cancer. <p> The 62-year-old star underwent surgery last week at Cedars Sinai
 effort to improve his mobility, he underwent back surgery at Massachusetts
 yesterday. The injured man, who underwent surgery on an arm yesterday, and
 <p> A 35-year-old man who underwent a baboon liver transplant a month
 The tall slim blonde, Karen, who underwent the liposuction and
 for all the social suffering he underwent in the interior, came to admire
 One died there, and the other underwent emergency surgery, a nursing
 of Aylesbury CID, said: 'This woman underwent an appalling ordeal. <p> He

From the concordance lines, we can classify *undergo* into three lexical sets. The first set includes the 'medical' semantic field: *operation*, *surgery* etc. The second one includes the words expressing 'change': *revolution*, *renovation*, *change* etc. And in the third one, colloquates include 'trial' and 'hardship': *agony* etc.

In connection with semantic prosody, a verb or noun sometimes collocates with an adverb or adjective of degree or character with high frequency. Take the examples of the verbs *argue*, *consist*, *connect*, *criticise* and the nouns *desire*, *contact*.

verb + adverb:	argue	strongly/forcefully/endlessly/ passionately/plausibly/fiercely	that ...
	consist	mainly/largely/mostly/only	of ...
adverb + verb:		well/closely/directly/intimately/loosely	connect
		sharply/strongly/severely/harshly	criticise
adjective + noun:		strong/burning/overwhelming/intense	desire
		close/direct/regular/personal	contact
adverb + noun:	... have	some/much/little/no	contact with

Most of the examples of *consist*, *desire*, *consist*, *criticise* collocate with an adverb or adjective that emphasises their meanings, while *consist* and *contact* collocate with an adverb expressing degree which ranges from are extreme to the other. It will be useful for learners to know semantic prosodies like these and thus be able to communicate delicate emotional nuances.

5. Usage

In this section, let us examine *die of* and *die from*, *cannot help -ing* and *cannot help but do*, noun *desire*, comparing the corpus data with the descriptions of an English-Japanese Dictionary, an English-English Dictionary, and a grammar reference book.

The difference of usage between *die of* and *die from* has often been explained that *die of* A is used when the cause is disease, hunger or old age. Whereas *die from* A is used when the cause is injury or carelessness. Although some usage dictionaries note that this distinction is not kept strictly, almost all English-Japanese Dictionaries and reference grammar books published in Japan follow the above distinction included in the latest dictionaries (e.g. Super Anchor, College Lighthouse, Royal English Grammar p. 636). The following citations are occurrences of *die of* and *die from* taken from the BBC corpus in BOE at random.

are often disfigured and sometimes die of their injuries. One approach is
is worried by the number of people who die of head injuries which could be
whilst most cocaine users will never die of a heart attack, there is no way
not yet exist. How many people must die of AIDS before governments respond-
severely malnourished and beginning to die of starvation. Children come to his
Elizabeth Blunt, is in Monrovia: die of starvation" <h> DESK BOND KAMPALA
malnourished and beginning to die of starvation. The American team is
and many children are beginning to die of starvation. Those trying to co-
Lanka say that people are beginning to die of starvation as the government's
whose sons or widowed daughters die of AIDS in their twenties or
so if he wasn't poisoned what did he die of? WHEATER: Well, the medical
whose sons or widowed daughters die of AIDS in their twenties or

is no single cause of death. Some die of starvation, others of 82,000 people under the age of 75 die of coronary heart disease each year. so if he wasn't poisoned, what did he die of? WHEATER: Well, the medical camp was one of the first people to die of the cholera which has now broken of millions of human beings who could die of hunger, as an indirect result of of pneumonia and eight thousand will die of measles. For every child killed 82,000 people under the age of 75 die of coronary heart disease each year. would have died anyway. when they did die of their wounds, the Iraqi forces would have died anyway. when they did die of their wounds, the Iraqi forces of AIDS". About three million people die of TB every year, 1.8 million in not otherwise have died from TB will die of it, but that it will then be that forty-thousand children a day die from preventable diseases. President that forty-thousand children a day die from preventable diseases. <h> CHINA that forty-thousand children a day die from easily preventable diseases. terms before more haemophiliacs die from AIDS. This report from Tim forms of asthma and two-thousand die from it each year. Doctors believe inadequate sanitation and drugs. Many die from preventable diseases. The main day, who are starving and who will die from illness because there is no it into those without it. People die from AIDS, Acquired immune One in seventeen Hungarians die from environmentally-induced causes. 2 million dollars on arms, 57 people die from hunger-related illnesses. The up to two-million more people will die from cancer after that because of and a half million more people will die from cancer in centuries to come, beaten, shackled and starved. Many die from lung complaints, such as TB, cent of children under the age of five die from malaria every year in the of all children in the Gambia still die from severe malaria. And over all, are that about a million children die from malaria in subsaharan Africa. develop very severe malaria and often die from it, whereas the majority of that young children who are likely to die from very severe malaria less often about the age of twelve. They usually die from respiratory or cardiac failure mainly children and young adults, die from meningitis, inflammation of the them-kill them with sticks till they die" from leader writers and concerned during the past year. If it isn't to die from over-exposure, we urgently need people were malnourished and could die from an attack of measles.<p>

Here, we found a lot of examples of disease. In current English, *die of* and *die from* can be mutually converted, therefore it seems that we had better not emphasise the difference of usage.

Cannot help doing and *cannot help but do* are both treated as the expression of the same meaning as 'cannot prevent or avoid something'. Some English-Japanese dictionaries and reference grammar books (e.g. *Genius*, *Proceed*, *Royal English Grammar* p. 391) describe *cannot help but do* as Colloquial American English. The reason why the above books give an impression that this expression is not used in British English seems to be influenced by the following description in the usage book. Formerly *cannot help but do* was not accepted as standard usage. 'There is a longstanding traditional objection to *cannot help but* (*He could not help but smile*), which is believed to form a double negative, but the combination has been widely used by reputable writers for most of this century.' (*Longman Guide to English Usage* 1993) In the recent EFL dictionaries using a corpus, *COBUILD* (1995), *LDOCE* (1995), *CIDE* (1995) contain a description of *cannot* [*can't*] *help but do*. But *OALD* (1995) does not contain *cannot help but do*. Furthermore, Swan (1995: 116) says, '*can't help but* is especially common in American English.' However, *The Oxford School A-Z of English* (1995: 48) stands on the side of acceptance as follows, 'In the past this has not

been accepted as standard, but now the objections to it seem to have faded away.' From the above description we shall reach the conclusion that in British English *cannot help but* is becoming a standard expression now, but some grammarians still feel resistance to that expression.

If we look up *cannot help doing* and *cannot help but do* in the British English corpus from BOE, 358 instances of *cannot[can't] help but do* occur, compared with 797 instances of *cannot[can't] help doing*. Thus we can conclude that *cannot[can't] help but do* is comparatively common in British English. In addition, 107 instances of *cannot[can't] but do*, which is a recognised as a formal expression, occur.

When we look at the components of *cannot[can't] help but do* in the British English corpus, we find that they can often be seen in formal materials such as journals. The frequency order is as follows: *Guardian, Independent, British Books, Times, Economist...* Whereas the frequency order of the contracted form of *can't help but do* is *British Magazines, Today, Independent, Guardian, British spoken...* Although *can't help but do*, if anything, can be found in informal materials, *cannot[can't] help but do* is generally found in formal materials in British English. Therefore it is difficult to conclude that it is a colloquial expression as it is in American English.

It is interesting that in the Corpus the subjects of *cannot help doing* are 'I' (49 instances), 'one' (41 instances), 'you' (21 instances), 'we' (10 instances). The subjects of *can't help doing* are 'I' (266 instances), 'you' (166 instances), 'one' (50 instances), 'we' (17 instances). While the subjects of *cannot help but do* are 'one' (26 instances), 'you' (21 instances), 'we' (9 instances). The subjects of *can't help but do* are 'you' (97 instances), 'I' (59 instances), 'one' (19 instances), 'we' (6 instances). So the observation here would be that many examples of *cannot[can't] help doing* occur with the subject 'I', while *cannot[can't] help but do* occurs with the general 'one' or 'you'.

From the above, *cannot[can't] help doing* is used when there is a focus on the consciousness of the speaker. The speaker is in a state of not being in control. In contrast, *cannot[can't] help but do* is used in general and psychologically neutral remarks. This expression is felt to be a little formal.

Let us now consider the noun *desire*. Most of the English-Japanese dictionaries give the <desire for NOUN> pattern first, then the <desire to infinitive>, and then the <desire that clause> pattern. For example, the description in the *Genius English Japanese Dictionary* is as follows,

He has no[not much, a (great)] ~ for recognition. = ... to be recognized. = ... that he («mainly BrE» should) be recognized.

Since most examples from the English-Japanese dictionaries are *have no desire for*, I have looked up 'have@ + no + desire + for' in BOE²⁾; that pattern occurs 40 instances. However, 'have@ + no + desire + to + VB' occurs in 421 instances. The <desire to infinitive> pattern is more normal than the <desire for NOUN>. In addition, these are only 3 instances of 'have

@ + no + desire + that'. We need to consider the real usage when referring to the frequency list.

An electronically-stored corpus available for manipulation of the data is very useful for us to get to know the usage of language. Concordance lines and the frequency list give us explicit information. However, there are some points we have to pay attention to when using a corpus. We can draw a conclusion definitely if any pattern shows high frequency or clear difference in statistics. However, when we consider low frequency usage, it is difficult to make a judgement. Even if some examples are exceptional, the computer picks out those examples because the corpus consists of naturally-collected language data. As already mentioned in the section concerning *cannot help but do*, a corpus shows us real language usage in detail, but it is difficult to make a judgement about how widespread a particular usage has to be before it is accepted as standard. In school grammar, where we should reach an agreement between prescription and language use. The final judgement is entrusted to language teachers. It is important not to stray from prescription, giving priority to language use. Therefore, the following reference by J. Aarts (1991) will become an apt remark for the language teachers using a corpus.

We can say that if we want a formal grammar to be more than just a tool to produce an analysed corpus and want it also to contain a description of language use, we start from an intuition-based grammar consisting of a set of well-established rules, and confront this grammar with the material contained in a corpus.

6. Idiomatic Expression and Corpus

In the conventional English grammar book, idiomatic expressions such as *It is not until ... that—*, *There is no -ing* have been taken up as important items. In this section it is argued that a corpus is also effective in the teaching of idiomatic expressions. This is illustrated by *It is + ADJECTIVE + to Infinitive*. The following are typical adjectives of this expression in BOE.

It is *hard/difficult/important/easy/possible/impossible* to Infinitive
better/likely/necessary/best/nice/good etc.

The adjectives can be divided into the following groups.

Difficulty: *hard, difficult, easy* etc.

Importance: *important, essential, vital* etc.

Possibility: *possible, impossible, likely, unlikely, able* etc.

Good and Bad impression: *better, best, nice, good, interesting, fair, great, advisable, wise, useful, reasonable, illegal, wonderful, dangerous* etc.

Right and Wrong: *right, wrong, true* etc.

Furthermore, similar meaning groups connect with the same type of verbs.

It is $\left\{ \begin{array}{l} \text{hard} \\ \text{difficult} \\ \text{easy} \end{array} \right\}$ to *see/imagine/believe/get/find/say* etc.

(*Easy* further collocates with *forget* in high frequency but the other adjectives do not.)

It is $\left\{ \begin{array}{l} \text{important} \\ \text{essential} \\ \text{vital} \end{array} \right\}$ to *keep/have/understand/get/remember* etc.

It is $\left\{ \begin{array}{l} \text{nice} \\ \text{good} \\ \text{great} \end{array} \right\}$ to *see/get/have/hear/talk* etc.

It is interesting that we can find a strong relationship between structure and lexical set, and further there are another collocational relation between adjectives and verbs. We had mentioned only structure before and not lexis. The recognition of lexico-syntactic patterning (G. Francis 1994) will be useful for learners when they use idiomatic expressions.

7. Conclusion

In this paper we have considered the effectiveness of a corpus concentrating on the basic words which are taught in school grammar and also compared dictionary definitions and examples of usages with BOE corpus data. A corpus is effective in determining the function of lexis and we can derive from it a 'corpus-driven lexically based grammar'. A corpus offers detailed data of collocation, verb patterns and ambiguous usage, which are useful for students to 'use English naturally'. Lexically based grammar will compensate for that part which traditional grammar does not cover. However, when language teachers refer to a vast amount of data, they need to consider what kind of usage information is essential for their students. Furthermore, it is important for language teachers to keep a watch on different usages, depending on corpora of British English and American English, spoken and written, journal and novel, the latest usage and disappearing usage.

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Notes

- 1) The Bank of English contains a wide range of different types of written and spoken English.

Written and spoken modes/broadly general, rather than technical, language/current usage, from 1960, and preferably very recent/'naturally occurring' text, not drama/prose, including fiction and excluding poetry/adult language, 16 years or over/'standard' English, no regional dialects/predominantly British English, with some American and other varieties (Renouf 1987)

- 2) A word form with “@” appeared matches all forms of the lemma. For example, the verb *to give* has the forms *give, gives, given, gave, giving* and *to give*.

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論文要旨

従来、学校文法において grammar と lexis はそれぞれ個別に扱われてきた。Grammar は 5 文型に代表される構文、tense, aspect, voice, subjunctive, などの文の構造 (structure) に重点をおきながら指導が行なわれてきた。一方、語彙の指導では語彙の意味や if it were not for..., might as well など慣用表現を中心に取り上げることが多かった。本稿では、近年特に EFL 辞書編纂の分野でめざましい成果をあげた、コーパスが pedagogic grammar, 特に語の機能を重視するアプローチである lexically based grammar に有効であることを The Bank of English の資料にもとづいて考察する。具体的考察対象としたのは次のようなものである。学習者にわかりにくいと思われる absolutely と quite のコロケーションの使い分け、イギリスの日常会話で多用される形容詞 lovely

のコロケーション，動詞型，ある語が特定の意味のまとまりをもついくつかの語と共起する semantic prosody と呼ばれる連結関係，die of と die from, cannot help doing と cannot help but do の語法，It is+形容詞+that... 構文などに関してコーパスをもとに考察するとともに，データを処理する際に教師として注意すべき点についても論じた。