

## **Verb Syntax in Monolingual English Learners' Dictionaries: A Study of User-friendliness**

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### **Abstract**

The research reported below investigates the user-friendliness of sources of verb syntax in learners' dictionaries, as measured by the frequency with which the properly identified and useful syntactic information is located in the sources. The sources in the entries compiled for the purpose of the experiment were the ones which feature in the four major pedagogical dictionaries most recent at the time of the study, i.e., OALDCE6, LDOCE3, COBUILD2 and CIDE. 606 subjects, divided into two groups of different proficiency in English, underlined in the manipulated entries the syntactic information which they considered helpful in answering multiple choice questions. The results indicate that examples were in general the most user-friendly source of verb syntax, although pattern illustrations, if present, were consulted more often by the more advanced. Besides, contextual definitions proved more user-friendly than analytical ones. It has also been found that while the use of symbols for functional categories in verb codes as well as the better knowledge of the language boosted the user-friendliness of codes, placing codes in the extra column had an opposite effect.

### **1. Introduction**

*User-friendliness*, a term first used in computer science, is now a buzzword in pedagogical lexicography, where it is associated with easy accessibility of information to the dictionary user (Bogaards & Van der Kloot 2001). Varantola (2002) holds that in order to find out what makes a dictionary user-friendly, "we have to determine whether we are only discussing the way in which dictionaries are used, or are we also attempting to discover how the user benefits from the information available in the dictionary." It seems that in a study which attempts to investigate the user-friendliness of sources of verb syntax in pedagogical dictionaries, the way in which such dictionaries are used by learners to locate syntactic information cannot be divorced from the benefit the information provides. However, once the syntactic information found in a dictionary has helped users achieve their purpose, it can be considered useful, but its source may not be user-friendly. The utility, or usefulness, of the identified syntactic information is seen as a necessary, although not yet sufficient condition for the user-friendliness of the source which furnishes such information. The source should also be referred to very often, or, in other words, it should present the information in a way which would attract users' attention very frequently.

Implicit in the above approach is the need for a three-step investigation to assess the user-friendliness of sources of syntactic information. The study should concern first – the identification of the piece of syntactic information needed for a specific purpose somewhere in the verb entry; second – the utility of the information found; third – the frequency with which the rightly identified and useful syntactic information was located in particular sources of verb syntax in the entry. Differences in the frequency of reference to such sources reflect the differences in their user-friendliness. Therefore, the first two steps make it possible to gradually narrow down the scope of the study and focus the analysis. The crux of the matter is the investigation of the frequency with which various sources of syntactic information were consulted, once the utility of the information they furnish has been proved.

Such a study refers to a virtually unexplored area in pedagogical lexicography. The most closely related experiments concern the utility of syntactic information in learners' dictionaries, and the research is not only recent, but also scarce (cf. Bogaards and Van der Kloot (2001), who compared the usefulness of the information on verb complementation provided in LDOCE3, COBUILD2 and CIDE, and the authors' study (Bogaards & Van der Kloot 2002), where they examined which type of syntactic information on verbs was used most and which one was most useful). The discussion of these and similar issues in the literature on the subject, often limited to theoretical considerations, provides rationale for testing the following hypotheses:

1. Syntactic information is most frequently located in examples,
2. Contextual definitions serve as a source of verb syntax more often than analytical ones,
3. Verb codes in the margin of the verb entry are consulted less frequently than those inside the entry,
4. Symbols for functional categories in verb codes decrease the frequency of reference to encoded syntactic information,
5. Reference to verb codes increases with proficiency.

## **2. Method**

### **2.1. Materials**

A pretest and a test were used in the experiment. Both of them were structured around 15 English verbs, i.e., *anoint*, *chafe*, *chivvy*, *ensconce*, *gyrate*, *haemorrhage*, *hobnob*, *implore*, *jolt*, *josh*, *moonlight*, *subpoena*, *tailgate*, *trounce* and *yank*, which seemed likely to be unfamiliar to many advanced learners of the language. The aim of the one-page pretest, where the verbs were simply listed one under another, was to elicit the subjects' knowledge of syntactic properties of the verbs and eliminate its influence on the outcome of the study. The test consisted of 15 multiple choice questions with the verbs, accompanied by a pertinent dictionary entry below each one. The sentences used in the multiple choice task were extracted from various corpora of English. The parts of the sentences which were removed, and which constitute the only correct alternatives, reflect syntactic properties of the verbs. Three distractors added to each of them illustrated the unacceptable manipulation of the transitivity of the verbs or their complementation patterns. The entries for the verbs were not copied from any published pedagogical dictionaries but were compiled for the purpose of the investigation and covered only the senses in which the verbs occurred in the task. Based on OALDCE6, LDOCE3, COBUILD2 and CIDE, the monolingual English learners' dictionaries most recent and readily available at the time of the research, the entries reflected the state of the art in the presentation of verb syntax in pedagogical lexicography at the beginning of 2002. Accordingly, the sources of verb syntax in the entries included:

1. definitions:

- a. contextual, used consistently in COBUILD2,
- b. analytical, featuring in all the remaining dictionaries,
- 2. examples,
- 3. codes, divided on the basis of the symbols they incorporated into:
  - a. formal, modeled on those in OALDCE6 and COBUILD2,
  - b. functional-formal, similar to those in CIDE, referred to as functional in what follows,
- 4. pattern illustrations, featuring prominently in LDOCE3.

Examples were the same in all entries for a verb irrespective of either the form or the place of the other sources, which were manipulated as shown in figure 1.

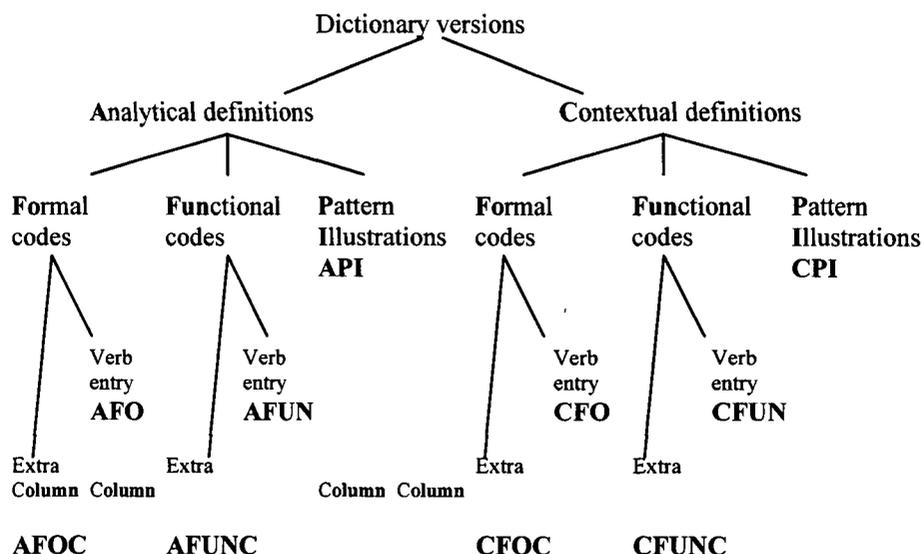


Figure 1. Dictionary versions used in the experiment

As can be seen from figure 1, 10 dictionary versions, denoted by the acronyms in capital letters, reflect the changes introduced to the microstructure. Irrespective of whether analytical or contextual definitions were used, either the form of codes describing complementation patterns of the verbs was manipulated, or the codes were replaced by pattern illustrations. In the former case, regardless of whether the codes were formal or functional, they were either interspersed among examples inside the entry or positioned in the extra column.

In the test the same 15 multiple choice questions were accompanied by one dictionary only. Each subject dealt with one test, and thus with one 15-entry dictionary. In the appendix are presented the multiple choice question and 3 of the 10 entries for the verb *noint* to exemplify the final product.

## 2.2. Subjects

606 subjects took part in the study; all were native speakers of Polish. 325 of them were Poznań high school students, henceforth the HSS, in the third and fourth grades. The other 281 subjects were students of English at Adam Mickiewicz University in Poznań in each of

the five years of study. The level of the HSS, at most upper intermediate, was not on a par with that of the university subjects, hereafter US, who were at least advanced learners of English.

2.3. Procedures

The research was conducted in classrooms during regular class-time. 5 minutes were allotted for the pretest and 35 for the test. First, the pretest sheets, coded and arranged in file in the same way as the tests, were distributed.<sup>1</sup> The subjects were asked to explain either in Polish or in English the meaning or meanings of the 15 verbs listed in the pretest sheet, and provide at least one example in English to illustrate as many grammatical constructions as possible in which each of the verbs could occur. The answers had no bearing on the subjects' participation in the next stage of the experiment, initiated by the distribution of the tests immediately after the completion of the tasks in the pretest and the collection of the sheets. In the test, the subjects were requested to perform the multiple choice task. They were also asked to refer for help to the pertinent dictionary entry below each sentence and to underline carefully the piece(s) of grammatical information they found useful. However, for fear of encouraging the subjects to draw on specific entry components, no examples of how to perform the tasks were given.

3. Results

3.1. Localization of Verb Syntax in Entries – An Overview

Whenever the analysis of the information from the pretest indicated that a given subject could have coped with a particular multiple choice question without recourse to the relevant dictionary entry, the information obtained from the subject in the respective question and entry was excepted from further study. The data discussed below concern the cases of dictionary consultation where the syntactic information identified in the supplied entries resulted in correct answers to the multiple choice questions. Such data are thus suitable for analysis in the last, crucial stage of the investigation.<sup>2</sup> Individual sources of verb syntax where the useful information was located are examined regardless of the actual combinations in which they were underlined. For each source the data are aggregated over the 15 entries in a dictionary. Figure 2 shows percentages reflecting the frequency of the HSS' and the US' reference to definitions, examples and codes in the eight dictionaries without pattern illustrations.<sup>3</sup>

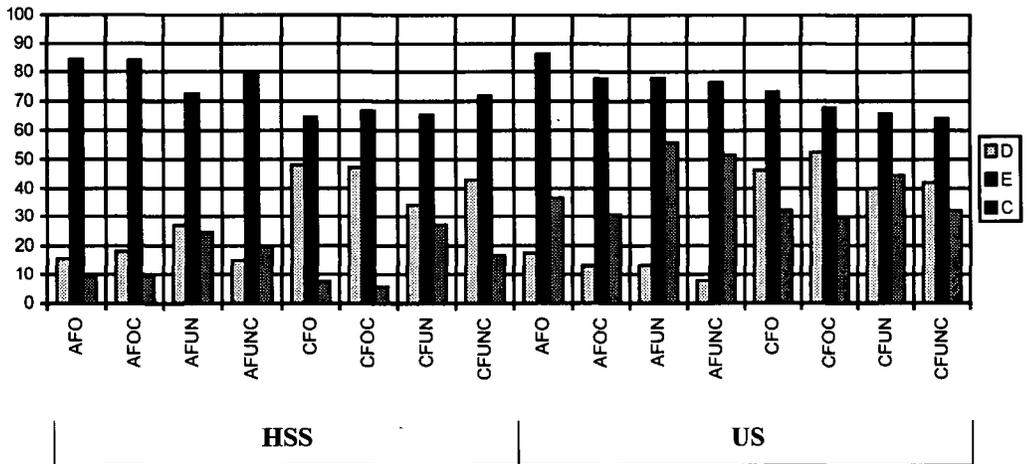


Figure 2. Frequency of reference to definitions, examples and codes in eight dictionaries in both samples

Figure 2 shows that in both samples reference to examples predominated in each dictionary. Codes, with the exception of AFUN, were the least helpful to the HSS. In the more

proficient group, by contrast, it is codes that proved to be the next most important to examples in all dictionaries but CFO, CFOC and CFUNC, where definitions took precedence over codes. Data which concern API and CPI are given in figure 3 below.

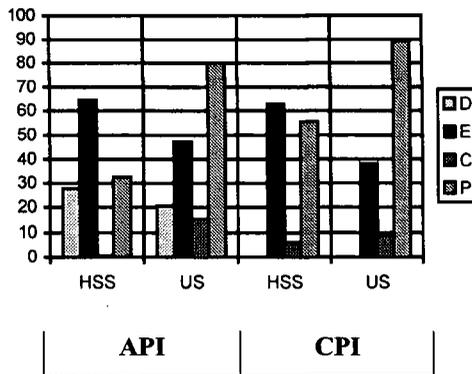


Figure 3. Frequency of reference to the sources of syntactic information in API and CPI

The above figure makes it clear that as far as API is concerned, examples were much preferred to the other sources of verb syntax in the less advanced sample. Pattern illustrations came off second best, but reference to codes was negligible in this group. The US, by contrast, drew overwhelmingly on pattern illustrations, and examples proved to be only the next best to them. Still, like in the group of the HSS, codes were the least important source of verb syntax.

Obviously, the HSS demonstrated an unwavering preference for examples also in CPI, where pattern illustrations proved second best, and codes were the least helpful to the subjects. Conversely, the choices the US made in the dictionary under discussion centered around pattern illustrations. The frequency of the US' reference to examples was also high, while codes were underlined about four times less often.

### 3.2. Definitions

In both samples it has been confirmed that contextual definitions were underlined much more frequently than analytical ones ( $Z_{obs}$ : AFO-CFO = -8,653 [-8,159], AFOC-CFOC = -7,573 [-11,460], AFUN-CFUN = -1,857 [-7,862], AFUNC-CFUNC = -7,476 [-10,769];  $Z_{crit}$  = -1,645,  $p < .05$ , one-tailed).<sup>4</sup>

### 3.3. Codes

**3.3.1. Place of codes.** The results of the Z test show that it is only when the dictionary featured contextual definitions and functional codes that the shift of the codes from the entry to the extra column significantly decreased the frequency of their consultation by the HSS as well as by the US. In no other dictionaries did such positioning of codes play a statistically important role in this respect ( $Z_{obs}$ : AFO-AFOC = 0,162 [1,442], AFUN-AFUNC = 1,488 [1,122], CFO-CFOC = 0,864 [0,843], CFUN-CFUNC = 2,964 [3,393];  $Z_{crit}$  = 1,645,  $p < .05$ , one-tailed).

**3.3.2. Form of codes.** The observed negative values of  $Z$ , large though they are, cannot be taken to support the positive directional hypothesis that formal codes were consulted more frequently than functional ones in either sample ( $Z_{\text{obs}}$ : AFO-AFUN = -4,835 [-4,986], AFOC-AFUNC = -3,562 [-5,762], CFO-CFUN = -6,339 [-3,299], CFOC-CFUNC = -4,251 [-0,775];  $Z_{\text{crit}} = 1,645$ ,  $p < .05$ , one-tailed). Nonetheless, more often than not, the values imply the truth of the negative directional hypothesis, for which  $Z_{\text{crit}} = -1,645$ ,  $p < .05$ . In fact, they indicate that the form of codes did not have a statistically significant bearing only on the US' reliance on encoded syntactic information when the codes were in the margin of the verb entry with a contextual definition. Otherwise, the results provide sufficient evidence to conclude that in both samples formal codes were indeed referred to significantly less often than functional ones and that all the differences were significant even at  $p < .0005$  ( $Z_{\text{crit}} = -3,291$ , one-tailed), which should be seen as a cogent argument against clinging to the original hypothesis and passing over the observed differences in silence.

**3.3.3. Proficiency level.** In the light of the  $Z$  test, in all dictionaries but CPI the higher degree of proficiency gave a tremendous boost to the consultation of codes ( $Z_{\text{obs}}$  HSS-US: AFO = -8,046, AFOC = -6,781, AFUN = -7,862, AFUNC = -8,621, API = -6,250, CFO = -7,950, CFOC = -7,869, CFUN = -4,444, CFUNC = -4,528, CPI = -1,181;  $Z_{\text{crit}} = -1,645$ ,  $p < .05$ , one-tailed).

#### 4. Discussion and Conclusions

The experiment has brought to light some regular patterns in the process of locating verb syntax in entries. It has been found that, as predicted, examples were in general the most user-friendly source of verb syntax, although in the more advanced group they proved to be the next best to pattern illustrations (cf. similar findings concerning the sources of syntactic information used most by the subjects in the experiment carried out by Bogaards and Van der Kloot (2002)). Besides, the hypothesis that syntactic information was located considerably more often in contextual definitions than in analytical ones has been confirmed in both samples. However, the hypothesis that the placement of codes in the column beside the entry negatively affected the frequency of their consultation has been supported in the samples only when the codes were functional and the definitions contextual. Otherwise, the position of codes turned out to be inconsequential (cf. Bogaards and Van der Kloot (2001) as well as Harvey and Yuill (1997), who found that the encoded syntactic information in the extra column in COBUILD2 and COBUILD1 respectively was almost ignored by their subjects). Further, it has been impossible to prove, in line with the thrust of the next hypothesis, that formal codes were referred to more frequently than functional ones. As a matter of fact, the reverse was always true in the less advanced group. In the other group the subjects' unpredictably heavier reliance on functional codes than on formal ones has not been identified only when codes were in the column beside the entry with a contextual definition, where the change of their form went virtually unnoticed. Thus, the study has unearthed some completely unanticipated yet surprisingly regular relation which appears to shed new light on the user-friendliness of codes. It has also been shown that the more advanced perceived encoded syntactic information as definitely more user-friendly than the less proficient, which might be seen as an argument against dispensing with verb codes in learners' dictionaries (cf. Bogaards and Van der Kloot (2002), who observed that codes were hardly ever used and questioned the need for them in pedagogical dictionaries). Clearly, the conclusions from the experiment are not quite surprising as far as uncoded syntactic information is concerned. Nonetheless, those which pertain to codes suggest the need for further research, also with the participation of subjects whose mother tongue would be different from Polish.

#### Endnotes

1. Therefore, it was sufficient to remember the order of distributing the pretest sheets and then proceed likewise with the tests to have each subject receiving a test with the same code as the one in the pretest. The use of codes insured the subjects' anonymity and made it possible, at a later date, to match the answers in the pretest with those in the test
2. The analysis of the identification of verb syntax in entries and of the use of the information found, conducted by means of the Z test (Glass & Stanley 1970), a method referred to also in what follows, has revealed that in each sample the scores yielded by the majority of the dictionaries were comparable at  $p < .05$ . The features of the microstructure which differentiated the dictionaries did not then significantly or consistently affect either

the identification of verb syntax in entries or the utility of the underlined information.

**3. As in API and CPI the range of available sources of syntactic information, which naturally determined the scope of the subjects' choices, differed from that in the other dictionaries, the localization of verb syntax in the two dictionaries is discussed separately. Since in actuality each source was selected in conjunction with some other one(s), it should come as no surprise that for any dictionary the sum of the percentages exceeds 100.**

4. In this paper, any observed values of Z given in square brackets concern the US, whereas the others – the HSS. The microstructure in API and CPI precluded taking into account these dictionaries in the analysis reported in this section and in the subsequent two.

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## Appendix

When the old Archbishop of Canterbury ..... they held the canopy over her.

- a. anointed with Alexandra
- b. and Alexandra anointed
- c. anointed Alexandra
- d. anointed to bless Alexandra

### AFO

**anoint** /ɑːˈnoʊnt/ *verb* to put oil or water on someone's head or body during a religious ceremony: [Vn] *Accordingly they petitioned the Pope to anoint Philip.* ◊ *He anointed my forehead.* ◊ [Vn with n] *The priest anointed her with oil.* ◊ [Vn as n] *The Pope anointed him as archbishop.* ◊ [Vnn] *In 751 Pepin was anointed king.*

### API

**anoint** /ɑːˈnoʊnt/ *verb* [T] to put oil or water on someone's head or body during a religious ceremony: **anoint sb/sth** *Accordingly they petitioned the Pope to anoint Philip.* ◊ *He anointed my forehead.* ◊ **anoint sb with sth** *The priest anointed her with oil.* ◊ **anoint sb as sth** *The Pope anointed him as archbishop.* ◊ **anoint sb sth** *In 751 Pepin was anointed king.*

### CFUNC

**anoint** /ɑːˈnoʊnt/ *if someone anoints a person or a part of their body, they put oil or another liquid on a part of that person's body, usually for religious or ceremonial reasons: Accordingly they petitioned the Pope to anoint Philip.* ◊ *He anointed my forehead.* ◊ *The priest anointed her with oil.* ◊ *The Pope anointed him as archbishop.* ◊ *In 751 Pepin was anointed king.*