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Examples of Use in Technical Dictionaries

Abstract

Many technical dictionaries take the form of glossaries which only lemmatize a source and target word without presenting any additional information about terms. While examples of use are frequent in general language dictionaries, they are rare in technical ones. Some lexicographers even share the opinion that there is no need to include examples in a technical dictionary because terms are generally monosemous and do not present any lexical problems. Using examples taken from the fields of garment and traffic engineering, this article is intended to show that many contrastive differences exist between Slovene and English terms from these fields. They should be included into dictionary articles to support the intended uses of a dictionary. A well composed dictionary article will help a professional user, especially a student, to formulate correct native and foreign language sentences.

Keywords: lexicography, technical dictionaries, microstructure, examples of use, contrastive analysis.

Introduction

John Sinclair defines the functions of examples in a general dictionary in his introduction to Collins COBUILD dictionary (Sinclair ed. 1995: IX). He states that "examples help to show the meaning of the word by showing it in use". Unlike Sinclair, Creamer (1987: 243) argues that examples are an economical way to complement definitions in general language dictionaries, although they cannot replace them completely. Definitions without examples render the understanding of the meaning of a lemma difficult (ibid., 243). Harras (1989: 607-614), on the other hand, criticizes the improper use of examples to additionally explain definitions. It happens, not so rarely, that examples are wrongly chosen and do not clarify definitions. To support her view, she states an example entered under the lemma *frustrieren* in a general language German dictionary. The example *von dieser Atmosphäre war er frustriert* does not help in any way to understand the definition *jemand an der Erreichung eines angestrebten Ziels hindern* (ibid. 609). Good

examples should therefore show the use of a lemma, prototype properties, cultural characteristics, and also collocations.

Carla Marelo (1987: 225-237) studied examples in Italian bilingual general dictionaries. Examples are especially important in dictionaries for encoding where they should show the correct grammatical use of a lemma to support translation into a foreign language.

Cowie (1989: 55-65) states that in general language dictionaries for decoding examples clarify definitions, while in general language dictionaries for encoding they support the active use of a foreign language by showing grammatical patterns, collocations and style.

Compared to lexicographic theories about compiling general language dictionaries, theories about compiling technical or specialised dictionaries are rare. The main theoretical work on technical lexicography was written by Bergenholtz and Tarp (1995). In their *Manual of Specialised Lexicography* they set the basis for the preparation of specialised dictionaries.

Examples in technical dictionaries were studied by Bergenholtz (1994), Rossenbeck (1987, 1991), Zöfgen (1986), Marelo (1987) and Moulin (1983). Moulin (1983: 145) gave an overview of examples in technical dictionaries and came to the conclusion that many technical dictionaries are compiled as glossaries which lemmatize only source and target language terms without including any additional information. Examples in technical dictionaries are often obsolete (Bergenholtz 1994: 432, Moulin 1983: 145) and do not serve their purpose.

While lexicographers agree that examples are indispensable in general language dictionaries (Zöfgen 1986: 219), their view about their inclusion in technical dictionaries differ. Marelo (1987: 229) is of the opinion that there is no need to enter examples, because technical terms are generally monosemous and as such do not present lexical problems. Examples should be only included in a technical dictionary when the use of terms differs in the source and target language. Rossenbeck (1987: 280f) and Bergenholtz (1994) on the other hand, see numerous contrastive problems in technical terminology, too. Contrastive particularities should be highlighted in a technical dictionary to support translation from and into a target language.

Functions of examples in bilingual technical dictionaries depend on basic functions of these dictionaries. Bergenholtz (1994: 430) enumerates seven functions of examples. They should support understanding and writing texts in one's mother tongue and in a foreign language, translation from and into a foreign language, and they should convey professional information. According to Rossenbeck (1991: 43-44), examples can replace a definition or an explanation, support meaning distinction, and illustrate the use of a term.

Bearing in mind the above theoretical findings, the author of this article studied contrastive differences between the Slovene and English terms in the field of garment engineering and traffic engineering. She searched for examples that would

best serve the user in his/her passive and active work. For this purpose she reviewed a corpus of foreign technical texts which comprised scientific and professional articles, handbooks, textbooks, instructions for operation, marketing material, and other minor texts. Due to the lack of software and hardware, the corpus used was not computerized and examples were searched for manually. Computer processing, it is true, would give a richer selection, yet in the manual way, too, numerous appropriate examples could be found.

The purpose of this article is to present sample dictionary articles containing relevant examples of use. Dictionary articles have been grouped in sections according to functions which examples of use fulfill in technical dictionaries for decoding and encoding. Examples have been selected with a view of considering pedagogical functions of dictionaries, too. A pedagogically motivated approach to drawing up dictionary entries was suggested by Coffey (2006 : 157-173).

2. Examples in a technical dictionary for decoding

In bilingual technical dictionaries for decoding examples must be chosen so as to serve basic functions of these dictionaries, i. e. the understanding of foreign texts and the translation into one's mother tongue. Examples here do not have the same importance as in dictionaries for encoding, yet they may function as a support to a definition and meaning distinction. Examples may also help the user to formulate a correct Slovene translation of the source word.

2.1 Supporting definition

In the below dictionary article the examples *short daily journey* and *journey to/from school* give additional information to the user about the definition. The Slovene word *potovanje* generally has a connotation of a long journey. The examples, however, show that the term *journey* can be also used for short distances, and even for journeys to school which are undertaken on foot.

journey *sam* potovanje S terminom *journey* označimo serijo potovanj, ki se začnejo in končajo doma ali na začasni lokaciji prebivanja. [A journey is a series of trips starting and ending at home or a temporary location.]: *short daily journeys* kratka dnevna potovanja *ali* kratki dnevni premiki / *long journeys ali long-distance journeys* dolga potovanja potovanja daljša od 100 km od začetne točke, običajno od doma [journeys more than 100 km from the reference location, normally home] / *Journeys to/from schools are frequently undertaken on foot, by bicycle or by public transport.* Pot v šolo (*ali* iz šole) se običajno opravi peš, s kolesom ali z javnim prevozom.

2.2 Adding to the meaning and meaning distinction

Examples in a technical dictionary for encoding can also add to the meaning of the lemma or support meaning distinction in case of polysemous terms. The English counterpart to the term *stacking area*, i. e. *odstavni prostor*, may not be quite understood without an example. The below example clarifies the meaning of the lemma by providing information about the usual location of *stacking areas*.

stacking area *sam* odstavni prostor: *If traffic demand exceeds capacity at car park entrances and exits, a stacking area should be incorporated. Če je promet na dovozih in izvozi iz parkirišč večji kot je njihova prepustnost, je treba zgraditi odstavni prostor.*

In polysemous terms, such as *line* or *divert*, the examples support the meaning distinction and prompt the user to select the correct Slovene counterpart to the English lemmas.

line¹ *sam* **1.** črta: *Lines that separate lanes of traffic in the same direction are generally white and broken. Črte, ki ločujejo pasove za promet v isti smeri, so običajno bele ter prekinjene.* **2.** proga, linija: *There's a straight bus line between the cities. Mesti povezuje direktna avtobusna linija.* **3.** vrsta, kolona: *cars waiting in line to enter a parking area v koloni čakajoči avtomobili za vstop na parkirišče*

divert *gl* **1.** preusmeriti: *to divert traffic preusmeriti promet / During the road repairs, all traffic is being diverted. V času cestnih popravil ves promet preusmerijo.* **2.** zaviti: *A road diverts to the right. Cesta zavije na desno.*

2.3 Correct wording of a lemma

Not all Slovene users of dictionaries master their mother tongue perfectly. This may be especially true of students in higher professional programmes, whose mother tongue often displays an excessive use of dialectal words, a poor vocabulary and a limited power of expressing themselves in Slovene. It is therefore useful for them to find Slovene translations of examples entered at individual lemmas. *Vehicle in violation of parking* and *violation of the right of way* may be wrongly translated by unfamiliar users as *vozilo v prekršku parkiranja* or *kršitev prednosti* instead of *vozilo, ki krši parkiranje* and *odvzem prednosti*. The examples entered under the English lemma *merge* can also help the user to word the lemma correctly.

parking *sam* parkiranje: *vehicle in violation of parking vozilo, ki krši predpisano parkiranje*

right of way *sam* (o vožnji) prednost: *Who has the right of way? Kdo ima prednost? / violation of the right of way* odvzem prednosti / *to give (ali to yield) the right of way* dati prednost

merge *gl* (o prometu) vključiti se, stekati se: *to merge with traffic without stopping* vključiti se v promet brez ustavljanja / *traffic merges from the right* promet se steka z desne / *two lanes merge into one* dva pasova se spojita v enega

3. Examples of use in a technical dictionary for encoding

Technical dictionaries for encoding should contain more examples compared to technical dictionaries for decoding. Besides foreign equivalents to lemmas in the mother tongue, a technical dictionary should support active use of a foreign language. This means that a dictionary article should contain all information relevant for translating texts into a foreign language and writing texts in a foreign language. In the next section, we shall try to show the functions of examples to fulfill these requirements. In technical dictionaries for encoding examples can support definitions and meaning distinctions, and show grammatical patterns and special uses of terms, synonyms, antonyms, collocations as well as style and informal uses of terms.

3.1 Supporting definition

When a lexicographer decides to include definitions into his/her dictionary, he/she has two possibilities: he/she may take them from reference works or have them composed by an expert in the field. Definitions, as a rule, must be short, accurate, clear and understandable to the user. The lexicographer, however, may add additional information to a definition and he/she can do so with examples. Examples should upgrade the definition, not repeat it. In the below dictionary article the equivalent to *ulica v naselju*, i. e. *living street*, is explained by the definition, additional information, however, about activities that residents may undertake in such a street is given in the example.

ulica ...

ulica v naselju *sam* residential street, living street a street for local residents created to be shared by pedestrians, bicyclists, and low-speed motor vehicles; traffic calming principles are integrated into their design [ulica za lokalno prebivalstvo, ki jo uporabljajo pešci, kolesarji in počasi vozeča vozila, načrtovana po načelih umirjanja prometa]: *Sprehajanje, tek, igranje, kolesarjenje, kotalkanje, vrtnarjenje, srečevanje je le nekaj opravil stanovalcev v bivalni ulici.* Walking, jogging, playing, cycling, roller-skating,

gardening, partying are just some of the things residents can do in a living street.

3.2 Supporting meaning distinction

When terms are polysemous it is wise to clarify different uses of equivalents with examples. In the below dictionary article, which starts with the lemma *obdelati*, the equivalents are used in special contexts. The below dictionary article

obdelati *gl* to treat; to finish, to neaten; to process

does not help the user in active work as he/she does not know in which contexts the equivalents should be used. For a learner's dictionary the dictionary article

obdelati *gl* **1.** (tkanino, sukanec) to treat (fabric, thread): *obdelati viskozo proti krčenju* to treat viscose against shrinkage / *obdelati bombažni sukanec, da se sveti* to treat cotton thread to make it lustrous **2.** (robove) to finish, to neaten (edges): *Rezne robove obdelamo s trinitnim overlock vbodom.* The cut edges are neatened by a three-thread overlocking stitch. / *Robove obdelamo z enojnim zavijanjem roba.* Edges are finished with single turn-up hems. **3.** (z računalnikom) to process: *obdelati podatke z računalnikom* to process data in a computer

is much more useful. The examples prompt the user to make a proper selection of equivalents. So, when subjecting *fabric* or *thread* to chemical processes, the user will select the equivalent *to treat*, while when speaking about mechanical processes, such as enclosing edges, he/she will select the equivalents *to finish* or *to neaten*. For a student in textile engineering, the equivalent *to process* is also relevant because many garment making processes are nowadays designed on a computer.

3.3 Showing grammatical patterns and special uses

Grammatical features (for example. singular and plural forms of nouns, syntax, attributive and predicative uses of adjectives) can be also illustrated by examples. A Slovene user may have difficulties in expressing the term *means of transport* in singular. My students sometimes use the incorrect form **mean of transport* under the influence of the Slovene term *prevozno sredstvo* which has a singular form. To prevent the interference of the mother tongue, all grammatical particularities of foreign terms should be implicitly shown in examples.

prevozno sredstvo *sam* means of transport, means of transportation, transport/transportation means: *več kot eno prevozno sredstvo* more than one transport means / *ta prevozna sredstva* these transportation means

Examples can be also used to show attributive and predicative uses of adjectives, especially when they differ in the source and target language, such as

dvopasoven *prid* two-lane: *dvopasovna cesta* a two-lane road / *To krožišče je dvopasovno*. This is a two-lane roundabout.

3.4 Showing synonyms and antonyms

In technical dictionaries synonyms are often entered at the end of a dictionary article, in a separate field. Antonyms, on the other hand, are seldom shown, the reason being that they are less frequent. From the user's perspective both are valuable as they help him/her acquire new vocabulary in a rather simple and natural way. Antonyms can figure either within a definition or within the example which follows the definition. The below antonym *osnova* (EN *warp*) to the Slovene lemma *votek* (EN *weft*) is stated in the example:

votek *sam* weft crosswise thread in a woven fabric [prečna nit pri tkaninah]: *Votek se naj z osnovo prepleta pod pravim kotom*. The weft should interlace with the warp at the right angle.

3.5 Showing collocations

Poor knowledge of collocations is the source of numerous lexical mistakes the user can make under the influence of his/her mother tongue. Collocations should therefore be treated with special care in all dictionaries, including technical ones. Not only general terms, but technical terms, too, form unpredictable collocations and the user should be made familiar with them to avoid mistakes. Collocations are best presented in a separate field in a dictionary article, yet they may also be included in the field of examples.

voziško dovoljenje *sam* driving licence: *podaljšati voziško dovoljenje* to renew a driving licence / *odzeti voziško dovoljenje* to revoke a licence / *začasno odvzeti voziško dovoljenje* to suspend a driving licence / *ponovno pridobiti voziško dovoljenje* to reinstate a driving licence

3.6 Showing style and informal uses

Examples can be used in a technical dictionary to show style and informal use of language within a professional field. The user will so get aware of other expression possibilities within a field besides the formal one. He/she can profit from the examples *The garment is selling like hotcakes* or *The garment is walking out of the stores* when discussing the sale of garments, say with a supplier from an English speaking country, showing in this way his mastery of English.

oblačilo *sam* garment, ... : ... *Oblačilo se prodaja za med. neform* The garment is selling like hotcakes. *ali neform* The garment is walking out of the stores.

kopija oblačila *sam* copy of a garment design; *neform* knock-off: *Kopija oblačila je veliko cenejša verzija originala.* A knock-off is a much less expensive version of an original.

4. Conclusion

This study confirms the findings of lexicographers who stress the importance of examples of use not only in general dictionaries but in technical dictionaries, too. It refutes the theory of Marengo (1987) who argues that inclusion of examples into technical dictionaries is only justifiable when technical terms show different uses in a pair of languages. Rather, the study reveals that properly selected examples may fulfill other functions besides presenting grammatical patterns. In dictionaries for encoding, as seen above, examples may support definitions, clarify the meaning of terms, add to meaning distinction, and help the user word a term correctly.

In dictionaries for encoding examples perform a more important function compared to dictionaries for decoding. A dictionary for encoding should be compiled so as to support the active use of a target language, i. e. translating into a target language and writing texts in a target language. So, besides the functions that equal those in dictionaries for decoding, examples in dictionaries for encoding may also show grammatical patterns and specific grammatical uses of foreign terms, collocations formed by terms, as well as informal and jargon uses of terms. Examples of use should thus be chosen with special care so as to provide users, on one hand, with grammatical and lexical information about terms, and on the other hand with additional encyclopedic and linguistic information. The former will prevent lexical and grammatical mistakes due to the interference of one's mother tongue; the latter, on the other hand, will add to general knowledge of users and enrich their language style.

Providing additional encyclopedic and linguistic information on terms in technical dictionaries is contrary to the opinion shared by some lexicographers mentioned above. However, this study confirms the theory of those who attribute a bigger role to dictionary examples compared to that of merely presenting contrastive uses of lemmas. From properly selected examples, a careful user may better understand a definition or obtain information on style and jargon and on synonyms and antonyms of terms. The user may not need this information at the moment of consulting a dictionary; however, he/she may remember it and use it automatically when needed.

Speaking about pedagogical implication of technical dictionaries, we cannot but stress their importance for foreign learners. It is known that students often consult a dictionary to obtain a translation equivalent. They do not read the rest of a dictionary article because they consider it superfluous. This causes mistakes in their writing and speaking, and sometimes also hinders understanding. An ESP teacher, often confronted with incorrect sentences produced by his/her students, should bring dictionaries to the classroom. Students should be taught to use dictionaries correctly so as to obtain all relevant information from them. Firstly, the teacher should draw students' attention to contrastive grammar, which will help students eliminate mistakes in their translation. Secondly, he/she should explain to students other benefits that could be obtained from reading dictionary articles to the end. And thirdly, the teacher should advise his/her students to read foreign texts carefully to find particularities, if not all but some at least, of a language pair in a relevant field. This will raise students' awareness about possibilities and limitations of both languages and eventually enhance their writing and speaking skills.

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