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Calquing English Terminology into Polish

Abstract

This paper focuses on the question of calquing or loan translation. Basic tendencies in the field of borrowing are presented, one of which is to preserve loanwords while the other one to form calques. Various definitions of calquing are included along with the common distinction between semantic and structural calques understood in terms of polysemy and creation of new linguistic entities. Problems with borrowing and calquing are indicated on the basis of traditional classifications. The discussion leads to a newer classification which is derived from Carstensen and Busse (1994), i.e. one which leads to the distinction between calques and loan formations. Examples to indicate the accuracy of both categories are derived from computer terminology: both doublettes and various degree of translation. This part is based on a corpus study of text in *Gazeta Wyborcza*. Two tendencies are identified in this respect: creation of families of new terms and formation of new terms in accordance with the principles followed in earlier terminology. Concurrently, other factors, which lie beyond the realm of contrastive linguistics, are pointed as the reasons for the existing diversity in terminology. They are around the concept of sociolinguistic domains, in accordance with setting and participant framework. One of the reasons for not forming calques can be associated with the etymology of terms which inhibits this process.

Keywords: semantic calque, structural calque, borrowing, doublettes, terminology, domain analysis, corpus study.

Introduction

Any reader who enters the world of technology is struck by the number of strange looking and sounding words and expressions in computer texts. The understanding of such texts is made even more complex if one speaks to computer nerds themselves, as they tend to communicate with forms that are barely understood by non-specialists. On the other hand, we all know that there is a need to be familiar with

the fundamental concepts of the Internet, like installing software and setting up an Internet connection. As a result of this, Internet and computer terms are becoming part of common knowledge. Additionally, everyday communication benefits from e-mail techniques, in terms of users learning to write succinctly.

On the other hand, such economy of communication is contrasted with various approaches from language purists and some translators, who demand that the terms should be calqued. The correctness of many of the terms in everyday use now has been doubted in linguistic and translation literature, the effects of some suggestions are discernible in the literature of the last twenty years. Predominantly, these two approaches have led to the development of doublette and triplette terms, with equivalent meanings but varied distribution in terms of register, setting or participant framework, or a distribution that can be established on the basis of diachronic study. This paper attempts to look into these processes with a particular emphasis on the use and criticism of calques in Polish.

Calques and their classifications

Two definitions are provided below, both of which originate from linguistic sources. They reflect two different categories of calques presented later.

> A word or expression formed by a language's native elements in accordance with a semantic structure of a different language (Polański 1993: 146).

> Calquing is the transfer of lexical or grammatical meaning from a MODEL LANGUAGE into a REPLICA LANGUAGE whereby the latter replicates a formal expression typically via translation (Heine & Kuteva 2006: 23 [capitals as in the original]).

Various classifications of calques are offered in the literature on the subject; however, often a distinction is made between semantic calques and structural ones. This distinction can be looked at in terms of the result that a new word or expression brings into a language. Therefore, the group of calques includes:

- semantic calques when we are dealing with the transfer of a foreign meaning onto an existing Polish word or expression. It is common in computer terminology, e.g. in the verbs *ściągać* (*download*) used in the new sense of *to transfer (software, data) from a distant to local computer*.

The effect is the polysemy of an existing word.

- structural calques, as creating new formations in Polish, including the use of foreign elements, including both such ones in which the foreign morphological structure and meaning of a foreign element is transferred, *e.g. poczta elektroniczna* for *e-mail*.

The result is the origin of a completely new formation due to the translation of foreign elements.

A quite recent book by Witalisz (2007) includes a 130 page dictionary of English semanticisms in Polish. The complete list of computer terms provided in it is given below:

semantic calques

administrator, aplikacja, bufor, dedykowany, edycja, edytor, elektroniczny, format, ikona, katalog, menadżer, menu, mysz, okno, pakiet, pirat, przyjazny dla, robak, serwis, sieć, sieciowy, widok, wirtualny, wirus, zainfekowany;

structural calques

adres elektroniczny, baza danych, czas rzeczywisty, dysk miękki/twardy, miękki dysk, odzyskiwanie informacji, organizator, pamięć wirtualna, poczta elektroniczna, podział czasu, skok warunkowy, strona internetowa, system operacyjny, twardy dysk, wersja elektroniczna, wirtualna rzeczywistość.

However, in comparison to any computer text, for example, in the corpus texts in *Gazeta Wyborcza* one can clearly note that the former group is quantitatively under-represented[1]. Such items are the most common ones in nearly all newspaper texts devoted to computers, Internet, games and resources.

Problems posed by classifications

Various classifications of calques exist and some of them seem incompatible with others. Let's take two definitions from the literature on the subject:

Lexical calques—exact translations of foreign lexical structures (e.g. *zabijać czas* from French *tuer le temps*) (Polański 1993: 147),

Lexical calquing, which is also known as loan translation, uses single words or phrases which are already existent in the target language and allocates new meaning and/or structure to them. Such calques can be substitutive (one meaning prevails over historical ones, *obszar* in the sense of Eng. *area of interest*), associative (Polish *wyglądać* 'have an appearance' from German *aussehen*) (Obara 1989: 26).

Other discussions on what a calque is, and what should not be regarded as proper calquing, has been reflected in a number of different classifications of calques developed in the past. Einar Haugen (1950: 21) maintains that real loan translations are only those in which a foreign model is maintained. This model is similar to Werner Betz ([1957] 1959) and was later adopted by Broder Carstensen and Ulrich Busse (1994). There are different degrees of borrowing words. Betz ([1957] 1959: 53–58) contrasts the *Lehnwort* with what he calls *Lehnbildungen,* terms and constructions resulting from foreign influence. Loan formations have been classified into the following categories: (1) *Lehnübersetzung* [loan translation], when the structure of a word is literally translated, for example German *Flutlicht* from English *floodlight;* (2) *Lehnübertragung* [loan rendering], when a word is translated more freely and there is only partial agreement between the words in the source and the recipient languages, as with German *Senkrechtstarter* from English *VTOL aircraft;* (3) *Lehnbedeutung* [loan meaning], when a word is used in a new meaning previously characteristic of a word in a foreign language, as when German *realisieren* is used in the meaning "verstehen, erkennen, sich bewusst machen," under the influence of the equivalent English word—to *realize;* (4) *Lehnschöpfung* [loan creation], when nothing except the most basic idea is taken from the source language; that is, the meaning of the word is neither translated nor rendered, as with German Niethose from English *blue jeans.*

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1   The corpus used for the purposes of this study involved a comprehensive analysis of an appendix to *Gazeta Wyborcza* named *Komputer*. It was published every Tuesday between April, 1993 and August, 2004, so the material is based on 11 years of the paper. The examples used here come from random issues of Komputer; however, they are selected as representative for the corpus on account of their high frequency.

This model is followed by Uriel Weinreich (1953: 51) according to whom: in a calque (loan translation) the model is reproduced exactly, element by element. Therefore, this category includes, for instance, *hiperłącze* for E. *hyperlink*, but does not include compound nouns, in which the English model cannot be maintained while calquing different compound noun formation structures in the two languages involved. In contrast, in Polish terminology the term semi-calques is used in the same sense (*e.g.* Obara 1989: 38). The problem is with defining the terms: hybrids originate as a result of combining elements from any language, while semi-calques come into being as a result of partial translation of a foreign structure (Witalisz 2007: 76).

Solution

For the purpose of this study the model adopted is the one taken from the German *Anglizismen-Wörterbuch* by Broder Carstensen and Ulrich Busse (1994) for the reason of its clarity and simplicity. In it a distinction is made between the words and expressions that preserve the form of the English original versus the use of German words as a result of borrowing. The third category is used to distinguish words native to a language but formed on the basis of a foreign element. Three categories of borrowings are distinguished by Carstensen & Busse (1994: 59–63): (A) *aus* [from] English *x,* when the form of a word in the recipient language maintains the form of its English original, as in German *Job* from English *job*; (B) *nach* [following] English *x,* when the English signs are no longer directly recognizable, as German ones are used instead, as in German *Erste Dame* from English *First Lady*; (C) *für* English *x*, when a word looks English but is adapted to some degree morphologically, as in German *Twen* from English *person in their twenties, by analogy to teen*. Because of the simplicity of the above a decision was made to use either the term: borrowing when a form [from English] is used and the term calque [following English] for a Polish equivalent being translated or a word undergoing an extension of the semantic use in this paper.

Tendencies in calquing Polish computer terminology

The tendencies in Polish regarding the use of borrowings in computer terminology or calques are manifold and quite difficult to define for the purposes of the use of alternative forms. In brief, two or more equivalent terms are used interchangeably, for instance *driver* and *sterownik, aplikacja* and *program użytkowy, on-line* and *na bieżąco.* On the basis of text corpus analysis (*Gazeta Wyborcza*) the conclusion might be reached that there is no uniform tendency or prevalence of borrowed forms over calques. Additionally, some English terms have a number of various translations developed over time, *e.g.* a *link* is either *łącze* or *odnośnik; slot* is *gniazdo* or *szczelina*, *to find* has been rendered either as *znajdź* and *wyszukaj.* The use of any of such terms is relative to the context in which a word is deemed more natural. A detailed analysis of specialist journals indicates that random sources prefer to use calques rather than foreign forms. In popular computer literature loanwords are used more frequently.

In general, terms that form calques easily in Polish are mostly the ones that are formed on the basis of analogy to other existing terms. In this way tree diagrams of words can be formed with the items

grouped under a heading or a general term. For instance, by analogy to English names of computer memories or card names Polish equivalents are formed, as in the examples below:

English computer card types: *expansion, memory, ethernet, music, TV, measurement*;

the respective Polish calques: *karta rozszerzeń, pamięci, sieciowa, muzyczna, telewizyjna, pomiarowa.*

Much of such terminology deals with hardware and software which was part of traditional word-forming in technology; however, a tendency is visible to extend such vocabulary with new compound nouns referring to Internet and new technologies which are offered by the new technologies. Other examples of such term families are, the central term is found at the beginning of each list:

adres (address): *adres e-mailowy, adres w Internecie, adres internetowy, sieciowy adres,*

gra (game): *gra komputerowa, gra z zdigitalizowaną grafiką, sieciowa gra, gra strategiczna, gra role-playing, gra fabularna, gra zręcznościowa, gra sieciowa;*

program (program): *program do zarządzania okienkami, program do sieciowych pogawędek, program pocztowy, systemowy program, program użytkowy, program do opracowywania publikacji, program komunikacyjny, program edukacyjny, program sterownika, program instalacyjny, program dla Windows 3.1, program umożliwiający wysyłanie poczty elektronicznej, program biurowy, program graficzny;*

sieć, sieciowy (net, web, online, Internet): *sieć Internet, sieć komputerowa, sieć wsparcia technicznego, sieć miejska, sieć LAN, sieć lokalna, sieć bezprzewodowa, sieć novellowska, zasoby sieci, technologia sieciowa, sieciowe systemy operacyjne, sieciowy usługodawca, usługi sieciowe, transakcja sieciowa, system sieciowy, aplikacja sieciowa;*

szyna (bus): *szyna adresowa, 64-bitowa szyna komputera, szyna procesora, szybka szyna;*

usługa (service): *usługi sieci, usługi internetowe, usługodawca, usługodawca sieciowy, usługi katalogowe usługi abonenckie, dostawca usług internetowych, usługa stałego dostępu do internet.*

Another tendency was to form new categories of new words in Polish by direct and often literal translation. An attempt at identification of calques was made in 1986 in a computer journal *Informatyka* (Stokłosa 1986: 27). A list with examples of such calques is provided: *czas rzeczywisty* (real time), *podział czasu* (time sharing), *przerwanie wektorowe* (vectored interrupt), *punkt kontrolny* (checkpoint), *skok warunkowy* (conditional jump), *system programowania* (programming system), *wyszukiwanie informacji* (information retrieval), *złożoność obliczeniowa* (computational complexity). However, many such items are formed by analogy to technical terms that are common to historical terms originating from the past two centuries of developments in mathematics, physics and other branches of engineering. It is easy to note that the combination of the words is new in computer science.

As stated by Mazur (1961) many calques are formed in a way that follows a long established model in Polish technological jargon. This model has been followed in Polish technical terminology and applies the ending of the Polish noun with a suffix (*-ownia, -arka*). Examples of such terms follow on from the models established in Polish engineering terminology: *wciągarka (car winch), elektrownia (power plant), ciepłownia (thermal power plant)*. Such a model has enabled the formation of other ones in the field of computer applications—*przeglądarka (browser), nagrywarka DVD (DVD burner), serwerownia (server room)*. They are easy to understand since the root of these terms is informative of the meaning and hence, their meaning is clear. On the other hand, even a brief analysis of computer terms indicates

that basic hardware terminology yields itself to easy formation in this manner but the use of such forms is uncommon (*router* from *route* + agentive ending) is *trasownik* (use not noted in GW), *switch* (*przełącznik*, rare in GW).

Diglossia in computer terminology

Many word uses are attributable to factors that lie beyond the realm of comparative linguistics, since the decision regarding the use of them is governed by the interest or professional group who use them. Linguists have become interested in, and tried to describe phenomena that combine research into sociology, psychology and linguistics and combined them into the field of ethnography of communication. In ethnography of communication functions, structures and use of codes can be attributed to some human related factors, for example, those associated with a domain, setting or participants. One of the clearest examples of language choice according to domain is diglossia (different varieties of a language being used by same speakers under various circumstances). According to Saville-Troike ([1982] 2003: 45) in a diglossic situation there is a high (H) and low (L) variety of a language. According to the definition of diglossia:

- there is a specialization function for H and L,
- H has a higher level of prestige than L,
- there are different circumstances for acquisition of H and L,
- the H variety is standardized with established norms and orthography.

In the case of Polish computer terminology one can claim that diglossia is represented by the use of calques in the official variety of the language (specialized journals and manuals tend to use more calques than popular papers) versus the use of more borrowings in unofficial ones. In this case, the H variety will be represented by calquing, while L—borrowing. That is because foreign forms are more natural to computer users, in particular ones who have at least communicative competence in English. Quite clearly computer fans and nerds are a closed group and they communicate with the use of more borrowings (L variety), H variety is used in official documents. In addition, it is possible to note that official websites for computer centers tend to use Polish forms (to make their websites sound official). This will be presented based on two parallel texts below.

Evidence from parallel texts

For instance, I found a text on a computer center's homepage:

Obsługujemy 13,000 użytkowników sieci komputerowej złożonej z 140 przełączników w 50 punktach dystrybucyjnych oraz 30 sieci lokalnych...[2]
[We handle 13,000 users in a computer network comprising 140 switches in 50 distribution points and 30 local networks]

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2   www.uoi.po.opole.pl (access date: June 15, 2012)

A similar text devoted to setting up a computer network found on a popular message board is provided below:

> Napiszcie: mam problem—hub, router, czy switch:
> chciałbym podłączyć 2 PC do internetu (DSL) jednym modemem ...
> czy to ma wbudowany firewall?[3]
> [Tell me: I have a problem—hub, router, or switch:
> I intend to connect 2 PCs to the Internet (DSL) using a single modem...
> does it contain a firewall?]

In the first text we have 5 calques. They form a part of official register. There is a large number of other similar terms that are calqued. This, in turn, makes the term sound official, for instance as requested by law in public tender documentation. Examples of such terms include: *przełącznik (switch), koncentrator (hub), pamięć błyskowa (flash memory)*. Additionally, I had difficulty in finding out what the term *punkt dystrybucyjny (distribution point)* refers to. I asked students of the third year of a Computer Science course. After a discussion they concluded it refers to an *access point*, e.g. *hotspot*. However, this answer is incorrect since this is used with reference to *a central computer facility with routers, switches, bridges, and a server)*. In conclusion, it seems that the Polish calques can be misunderstood or are unfamiliar.

In the latter text there are 5 borrowings. All of these have an equivalent counterpart in the form of a calque. However, loanwords are definitely preferred in unofficial register. On the basis of text corpus analysis, a conclusion can be made that popular papers, like *Gazeta Wyborcza* tend to use fewer borrowings in contrast to the lower number of calques being used on message boards, bulletin boards and in chatrooms. However, specialized journals will aim at calquing structures, and assume a high degree of user competence with regard to use of doublettes. It can be noted that specifically speaking, *slot* as *gniazdo* or *szczelina* refer to different entities. The first one is a *expansion slot* (a socket for expanding *e.g.* memory) and the other one—a *port* for connecting devices. Hence, it is better to use the original term—*slot*, since it is more general.

Etymological reasons for not forming calques

In English many terms have been formed on the basis of the etymological origin of computer terms. The idea of calquing such terms seems quite absurd to computer specialists. Their course of reasoning is based on the etymology of particular terms. For example, dictionaries of computer term etymologies can be found on the Internet. For instance, many computer terms, including computer applications, often have their origin in the function they perform, e.g., a compiler is an application that compiles. A valuable example of such a term is a bug, which is a fault in a computer program preventing it from working correctly. This term originates comes from Grace Hopper, who traced an error in the Harvard Mark II to a moth trapped in a relay. This bug was carefully removed and taped to the log book at the university. This electromechanical computer experienced a fault while being tested at Harvard University, on 9 September 1947. The operators removed the moth and affixed it to the computer log, with the entry:

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3   www.frazpc.pl/b/2251245 (access date: April 29, 2012)

"First actual case of bug being found." They put out the word that they had "debugged" the machine, thus introducing the term "debugging a computer program" (Weisman-Deich, 2009:45)

The same refers to other items, *e.g.* the word *cookie*. A *cookie* is a token or short packet of data passed between communicating programs. A cookie can be analogous to, for example, the token supplied at a coat check (cloakroom) counter in real life. Cookies are used as identifying tokens in many computer applications. When one visits a website, the remote server may leave an HTTP cookie on one's computer, where they are often used to authenticate identity upon returning to the website. According to the common opinion of engineers who I interviewed such terms should never be calqued into Polish, as the result either is or sounds completely absurd (*cookie* is rendered literally as *ciasteczko*). Numerous examples of such terms are encountered in everyday computer terminology and application menus.

Conclusions

Some terms yield themselves more easily to calquing than others. For instance, vast majority of verbs in Polish computer terminology are calques and relatively few are formed by adding a suffix, thus enabling their inflection in Polish. Some other words that were found to form calques are the ones that are based on traditional collocations with central words that have been used in engineering terminology for a long time. A tendency in the formation of new terms is based on this principle.

Calquing requires competence of the speaker/interpreter. One has to be sure what the equivalents are and what terms have been used in other branches of engineering in similar contexts. Semantic calques are under-represented in dictionaries and literature. They constitute the most common items among borrowings in computer literature. This is confirmed by the results of a diachronic study of texts in *Gazeta Wyborcza*.

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