

ASPECTS OF SUB-TECHNICAL VOCABULARY IN ENGLISH AND ROMANIAN ECONOMICS TEXTS

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This paper investigates the extent to which sub-technical vocabulary can constitute a problem to Romanian students of economics reading in English, by looking at the translations given for a selected set of words and analyzing the various errors which appeared during the exercise. It discusses the concept in the context of homonymy, polysemy metaphorical extension and central or focal meaning.

Introduction and theoretical background

It is well known that English is increasingly becoming the international language of business and communication and that it has thus become crucial for those seeking academic or professional development to gain a good command of this language in all its important aspects, with reading being probably the most important skill in terms of acquiring new knowledge. Lexis is one of the most important elements to be considered when discussing English language teaching as the many intricacies and subtleties forming up vocabulary can constitute an important barrier in front of effective and correct acquisition. Differences between languages regarding problems of word meaning, idiomatic constructions, multi word items to name just a few can seriously hinder comprehension and act as a disincentive for those who have embarked upon the difficult task of learning English as a second language. It has often been pointed out that a major obstacle to comprehending texts in their disciplines for science students of English is not technical vocabulary as it would be expected (highly specialized words usually used only by specialists and which are as a rule taken care of by the subject teachers), nor general vocabulary which is usually acquired by the time students reach college, but a third intermediate lexical category between the general and the fully technical, constituting the largest proportion of scientific and technological texts and known as *sub-technical*, *semi-technical* or *non-technical vocabulary*. This consists of items of vocabulary from normal English operating within a science context. The aim of this paper is to investigate the extent to which this vocabulary is semantically and stylistically distinct from the same vocabulary but in a general English context, and then to outline the translation difficulties that Romanian business students encounter with these terms; in other words we shall try to establish the degree of semantic overlap that exists between English and Romanian as regards this vocabulary.

A very detailed theoretical presentation of what sub-technical vocabulary is, as seen through the various conclusions of those that have studied it along time is given by Jaqueline Lam Kam-Mei in her introduction to *A study of semi-technical vocabulary in Computer Science texts*. Besides the differences existing in the labeling of this special range of words existing between the fully technical and the general English, some researchers preferring the term *sub-technical* (Cowan 1974, Robinson 1980, Trimble 1985 and Tong 1993), others using *non-technical* (Barber 1962, Nation 1990, Tao 1994) and still others using *semi-technical* (Johns & Dudley-Evans 1980, Farrell 1990, McArthur 1996), the problem is further complicated by the existence of different definitions.

Thus, there are some commentators who prefer to use the term in relation to a general vocabulary of science consisting of words that have a wide distribution across disciplines, being context-independent and broadly useful to ST students (Cowan 1974, Barber 1962, Stig Johansson 1975, Marriane Inmann 1978). These “context-independent words that occur with high frequency across disciplines”¹ are usually qualified according to the criterion of frequency, constituting about 70% of technical texts and being therefore crucial in facilitating understanding. Other researchers adopted a broader view on sub-technical vocabulary, maintaining that it consisted of words that have one or more general meanings and in technical contexts take on extended specialized technical meanings. Louis Trimble was among the first to conclude that English sub-technical vocabulary can basically be classified into two categories: words that have the same meaning in several scientific or technical disciplines (words such as *function, isolate, basis, stir, boil, freeze*) – that is context-independent words – and words that are “common” but take on extended meanings in specific ST texts – context-dependent, discipline-based words.²

Trimble endorses the already popular claim that these intermediate level words, neither highly technical nor obviously general, constitute the most important barrier in front of understanding specialized texts, as students are not usually aware of the fact that familiar words can have unfamiliar meanings, and take it for granted that they already know them, expecting the general English meaning to make sense in any context. This preconception of the meaning of words can thus create confusion and is the real obstacle to their understanding. He illustrates the latter meaning of sub-technical by several terms with differing meanings across disciplines, as for example *transport, base, dog*

Later research endorsed the idea that sub-technical vocabulary embraces both context-independent and context-dependent words and highlighted new features of discipline-based words: the specialized meanings that these words have in different fields of study are sometimes metaphorical extensions of the general meaning (Li Lan 1989), and such a group of words can be polysemous and homonymous (Steward Marshall, Marion Gilmour and Don Lewis 1990).

However, in order to conclude our presentation on sub-technical vocabulary several considerations are necessary. Whether they are talking about *sub-technical, semi-technical* or *non-technical vocabulary*, researchers are referring more or less to the same basic concept, some of them having “a single absolute definition for such words, while others consider that the category has open boundaries which will flexibly allow for any general word that becomes technicalised and also any technical vocabulary item that becomes generalized.” (Jaqueline Lam Kam-Mei, 2001). It is a hazy and difficult to delimit area between the general and basic vocabulary of English As Mona Baker has noted “... ‘sub-technical’ as a category has proved to be elusive and confusing for many teachers, the reason being that the term has neither been clearly nor consistently defined in the literature.”

In this study, following Trimble (1985), the term *sub-technical* has been adopted to mean context dependent or discipline-based words, drawn from the common core of English and acquiring specialized meanings across different subjects.

Method, presentation and interpretation of results

The aim of the present paper is to investigate the degree of lexical and conceptual overlap between the sub-technical vocabulary of business and economics in English and

¹ Ronayne Cowan was the one who coined the term *sub-technical* while working in a research programme organized by the university of Illinois and Teheran University, the focus of his research being the creation of reading materials to train Iranian university students to read ST English prose. The sub-technical vocabulary he refers to is formed mainly of Latinate words that form part of the vocabulary of general educated usage.

² Referring to Cowan whom he acknowledges as the first to use the term *sub-technical* Trimble says that “He defines sub-technical vocabulary as ‘context-independent words which occur with high frequency across disciplines’. This definition applies to those words that have the same meaning in several scientific or technical disciplines”. Then he goes on to say: “To these words we have added those “common” words that occur with special meanings in specific scientific and technical fields’. Together, the two sets of words make up the English sub-technical vocabulary.”

Romanian, and the extent to which this overlap or rather the lack of it can facilitate or, on the contrary, adversely affect comprehension and act as a barrier to acquisition of knowledge. The study comprises an empirical investigation of the problems which Romanian students of economics are likely to encounter in reading business and economics texts and it was conducted using a decontextualised word-level exercise in which a number of 35 students were asked to translate a set of words from English into Romanian and then to make up sentences using these words. The list of sub-technical lexical items used for the test was partly drawn from a BEC frequency list of positive key words (source: Nelson, M. - *A Corpus-based Study of Business English and Business English Teaching Materials*. Unpublished Ph.D. thesis) and partly made up based on our own intuition and teaching experience; this latter part includes words such as *balance, book, branch, issue, maturity, middleman, quotation, security*, that are felt to have a high frequency of occurrence in the published business English materials students will encounter in their English classes. However, both the lexical items selected from Nelson's list of key words and those added by us from various teaching materials have been distinguished from technical lexis based on an essentially intuitive method rather than on any empirical data, this approach being motivated on the one hand by the absence of any available large corpus from which statistical conclusions could be drawn, and, on the other, by the fact that, as it has been pointed out before in this study, when speaking about technical/sub-technical vocabulary we seem to be dealing with rather fluid tendencies rather than hard-and-fast categories. Thus, although a number of additional words were at first included in the list (*equity, return, hedging, margin, draft, spread, turnover*), they were later excluded as it was felt that they required a precise technical explanation by the subject teacher, so they belonged more properly under the heading of "technical vocabulary".

The respondents were 35 students of economics from the Lucian Blaga University of Sibiu (17 1st year, 10 2nd year and 7 3rd year); they were invited to give translations of the words in the list and were made aware of the problem of multiple meaning by the indication that each word should be rendered in two ways: its general English and its business English acceptance. In order to further check their understanding of the words used, they were also asked to make up sentences using them. The results of this investigation are presented in Table 1 below. The words marked by an asterisk indicate unacceptable translations, and the numbers in brackets are used to show frequency of occurrence.

Table 1. Items of sub-technical vocabulary

Lexis	General meaning(s)	Specialized meaning(s)
company	firma(2), companie(23), a tine companie(6)	societate (1), corporatie (3), firma (11), companie (18), unitate (1)
order	a ordona (7), a comanda (6), ordine (17), ordin(5)	a comanda (11), ordin (de plata) (7), a ordona (1), ordine (4)
share	a imparti (24), a darui (1), parte (4), a impartasi (2), actiune (1)	actiune (21), cota parte (1), parte (2), profit (1)
bank	banca (24), banca in parc* (5)	banca (33)
stock	stoc (15), a depozita (4), intepenit* (1), a stoca (2)	stoc (17), actiune (4), bursa* (5), titlu de valoare (2)
account	a aduna* (2), cont (10), socoteala (2), contabil* (2)	cont (20), contabil* (4), acont* (1), contabilitate *(1)
interest	interes (30), interesant* (1), hobby (1)	dobinda (12), profit (2), important* (1), beneficiu (1), interes (1)
office	officiu (10), birou (19), sediu (1)	birou (21), oficiu (4), sediu (2), department (1), ghiseu *(2)
agreement	intelegere (25), a fi de acord* (1), acord (1), agrement* (2)	intelegere (7), contract (7), acord (9), cooperare* (1)
balance	echilibru (7), a cintari (2), balanta (24), balans (2)	echilibru (2), bilant (2), egalitate* (1), balanta de plati / de verificare/ contabila (18)

book	carte(32), a rezerva(2), a inregistra (1)	a rezerva (7), carte (4), agenda de lucru (1), registru (6)
branch	ramura (16), creanga (4), bransa (1)	ramura/domeniu (7), sucursala (2), filiala (10), bransa (2), lant de magazine* (1), breasla *(1), echipa* (10)
maturity	maturitate (31)	scadenta (4), maturitate (8), performanta* (1)
middleman	intermediar (5), mijlocas* (1), om de mijloc (7), om de legatura (1)	clasa de mijloc* (10), intermediar (10)
quotation	cotatie (11), citat (5), conotatie *(2), cota *(1)	cotatie (11), conotatie *(2)
security	siguranta (8), securitate (26), paza (1)	siguranta (8), garantie (5), protectie (2), parola *(1), titluri de valoare (1)
bond	legatura (9), obligatiune (4)	obligatiune (6)

The results presented in this table appear to test the veracity of the hypothesis that sub-technical vocabulary is a significant obstacle that students of ESP encounter in their efforts to understand specialized texts. The most obvious mistake that they have made in carrying out the task is to take it for granted that they know all the meanings of these words, based on a familiarity with the central or more general meaning that these words possess. This seems to be the case especially with cognate words³, whose similarity of form may act as a misleading element (the so called false friends). Thus, *stock* was translated by almost 50% of the respondents as *stoc* and by less than 17% as *actiune/titlu de valoare*, *interest* was rendered as *dobinda* by an average of 34% while its more obvious meaning *interes* was the answer given by almost 90% of those questioned, *balance* received the easy to guess Romanian equivalent *balanta* in 50% of all cases, but only two students translated it as *bilant* and none as *diferenta/sold*; while *maturitate* was an almost unanimous choice as regards the general meaning of the word *maturity*, extremely few people knew its more specialized meaning *scadenta*, although this word can hardly be regarded as technical, given its large usage. A similar case is that of *security*, translated by a 70% of the respondents as *securitate* but only by 7% as *garantie*.

While in some cases this similarity of meaning gives rise to insufficient awareness as regards the full knowledge of a word, as in the cases presented above, or even to downright absurd translations (*bank*= *banca in parc**, *agreement*= *agrement**, *branch*= *breasla**, *quotation*= *conotatie**, *account*= *acont**), in other cases it can facilitate rather than obstruct understanding: *company* was translated as *companie* by a large number of students, *bank* received the translation *banca* by almost 100% of those questioned as it would have been expected, *quotation* was translated *cotatie* more often than *citat*; on the other hand, a word such as *bond* with no obvious formal resemblance to any Romanian word received poor rendering in both the general (only 9 people out of 35 actually knew its central meaning- *legatura*) and the specialized context (only a slim 17% were familiar with its meaning as *obligatiune*; this can be a result of the fact that this term is probably more technical than the others).

An interesting aspect that can be noticed from the answers in this table is the fact that in some cases the general meaning (by this we mean the first meaning given in the dictionary) is not regarded as being the central meaning of the word, sometimes, students not even being aware of its existence. This is the case with *account*, for example, whose first dictionary translation is *relatare, raport, dare de seama*, but which was not translated in this way by any of the participants in this test. The same is the case with *quotation* whose first dictionary entry is *citat*, but which was translated like this only by 5 out of the 35 respondents, *share* primarily

³ David Crystal defines the term cognate as "A language or linguistic form which is historically derived from the same source as another language or form. The various Romance languages (French, Spanish are cognate languages (...)) and corresponding words (*mere, madre*) are cognate words."

meaning *parte* but for some reason seen by the students mostly as a verb- *a imparti*, *company* by which most respondents understood *companie/firma* even in a general context, and only a few *companie/ tovarasie/ (a tine) companie* the basic meaning of the word. This raises questions related to the concept of central or focal meaning as such and to its transferability across languages, with implications to the process by which peripheral meanings are created thus calling into discussion notions of homonymy, polysemy and metaphorical extension.

Michael McCarthy draws attention to the fact that central meaning can be difficult to establish as more than one factors contribute to its delimiting⁴. Thus, in the cases mentioned it was probably felt by those answering in the test that *account* as *cont* or *company* as *companie* are more central than *relatare* or *tovarasie*, although the latter are first entries in the dictionary. For the first word the explanation may be found with the fact that although *account* is first defined in English as “*a written or spoken description that gives details of an event*” (*relatare*), *cont* in the meaning of “*socoteala alcatuita din doua parti, debit si credit, care exprima valoric, in ordine cronologica si sistematica, existenta si miscarile unui anumit process economic pe o perioada de timp determinate*” is the first explanation given in the Romanian dictionary, therefore regarded as focal to all the other meanings. So, in this case there has been a psychological transfer from Romanian to English the awareness of which can prove to be a valuable tool in language teaching. Another transfer but in the opposite direction seems to have taken place in the case of *company*, whose first acceptance given in the English dictionary is that of *business* while this acceptance of the Romanian *companie* as *societate comerciala* holds a peripheral place in Romanian. Probably this is why a certain proportion of students (about 30%) translated it using two words: *companie* but also *firma* (the latter being more central than the former).

Even if the central meaning does not coincide in the two languages, it is important to make students aware of the fact that a familiar word may have an unfamiliar meaning, so that the trap of preconception regarding a lexical item can be avoided. Whether the different meanings of words are formed by a process of homonymy or polysemy is a matter of debate, as the line between the two is not easy to draw. “Homonymy and polysemy would seem to be two competing labels for the description of words with more than one meaning” Michael McCarthy says, and then he proposes the historical criterion in order to resolve the problem. According to this criterion, *ear* meaning *human ear* and *ear* in ‘*ear of corn*’ come from different historical roots so they must be homonyms since their meanings cannot be in any way related. Leech, however adds the psychological criterion to the historical one, and suggests that if two lexical meanings are psychologically related, that is, if users can, by metaphorical extension trace a connection between the two meanings, then “what from a historical point of view is a homonymy, resulting from an accidental convergence of forms, becomes reinterpreted in the context of present- day English as a case of polysemy”. Then, are the two meanings of *security* for example – *securitate* and *garantie* – a case of homonymy or of polysemy? Was the latter developed from the former by a process of metaphorical transfer of meaning (*garantie* as a concept including the notion of *securitate*)? These are questions that can be asked with the majority of the words used in this study and the answer is not easy to gain. However, as McCarthy has noticed, “for most language teaching and learning purpose, the polysemy-homonymy debate will be somehow irrelevant and the task will remain unchanged, that is how to grapple with the variability of meaning possessed by thousand of words”.

Conclusions

Sub-technical vocabulary remains an important area in business English and it needs to be addressed, as an awareness of the problems arising from it can contribute to their solving.

⁴ “such psychological perceptions are powerful and may not necessarily coincide with actual frequency of occurrence in language data, but the power of the central meaning and its transferability across languages may be important features in how words are learnt and how different senses are felt to belong to the centre or periphery of a word’s meaning potential”

Whether these words are created by a process of homonymy or polysemy, there is no perfect overlap between English and Romanian, their meanings in one language being at times more central or more peripheral than in the other. These mapping differences in the linguistic landscape can create confusion, and it is the task of the English teacher to deal with them in a way that will facilitate understanding, by making students aware of homonymy and polysemy problems, and helping them integrate new information into already existing knowledge.

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