TWO-WORD COMBINATIONS AS ENGLISH AND LITHUANIAN TERMS OF BUILDING AND CIVIL ENGINEERING

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This paper studies English and Lithuanian two-word terms of building and civil engineering with respect to their grammatical and semantic structures. By means of a comparative analysis common and diverse structures of the terms under discussion have been considered, and some main two-word parallel term structures are distinguished in these languages. Structural differences are characterized by the grammatical peculiarities of the two languages. Semantic equivalence or non-equivalence of some components of such terms is discussed, and the adequacy of the meaning of the terms compared is explained. The comparative study of such terms should add to quick recognizing of certain structures and to facilitating comprehension and use of the terms. The adequacy of the English and Lithuanian terms means the identity of their meaning, and namely, this is what matters in special-subject communication.

Keywords: adequacy, component, concept, determinant, identity, nucleus, structural pattern.

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Introduction

Terminology is the most important characteristic of specialist communication. Special-subject language is always specified by the lexicon of this subject which is represented best by terms. Namely, terms "differentiate special languages from the general language and also the various special languages from one another" (Cabre 1999: 45). On the other hand, subject-specific communication among specialists is not very different from general communication. In both cases communicators must know how to select the necessary words for certain situations and to find grammatically correct and proper linguistic forms of their expression. It is constantly emphasized that "terms are the linguistic representation of concepts" (Sager 1990: 57), i.e. each term has a certain linguistic form. However, special-subject communication will fail if one of its participants lacks the knowledge, (or understanding) of specific words, or terms, which are the most informative in a special field. It is impossible to retrieve information from a text if one does not know the terms, relative to the subject of the text. Thus, terms are always associated with the domain of specific knowledge and information. A term, unlike other words, "directs the mind to the essential quality of the thing, phenomenon or action (Galperin 1977: 76), making the subject-matter communication between specialists more effective and precise. Then the exchange of information concerning the subject is achieved without great efforts."
Lithuanian building and civil engineering terms have been examined with respect to their synonymy (Stunžinas 2005: 7–26). The aim of this article is to discuss and evaluate possibilities of finding adequate Lithuanian and English two-word terms of the fields under discussion. The methods of comparative analysis and synthesis have been used. The analytic method is aimed at investigating a structural pattern by dividing it into separate meaningful parts, while synthesis helps to study the whole structure of the unit. Comparison of the terms of two languages allows us to find out similarities and diversities in their structure and adequacies in meaning.

Examples for the analysis were taken from two bilingual dictionaries “Anglų–lietuvių kalbų statybos terminų žodynas” (A. Kudzys, A. Rosinas, B. Kudzienė, spec. red. akad. A. Kudzys. Vilnius, 1993) and “Anglų–lietuvių kalbų aiškinamasis architektūros žodynas” (L. Kitkauskienė, N. Kitkauskas. Vilnius, 2004) and one five-language dictionary „Statybos terinių žodynas” (A. Kudzys, A. Rosinas, B. Kudzienė, moksl. red. akad. A. Kudzys. Vilnius, 2002. 879 p.).

The survey of two-word English and Lithuanian terms of building includes the analysis of the linguistic form and the relation between the constituents of such terms. In order to identify adequate terms, one is to assimilate professional vocabulary, i.e. terms expressed both by words and word combinations.

This paper might contribute to both theoretical analysis and practical tasks when searching for or selecting proper term adequacies in the two – the source and the target – languages. Every specialist is involved not only in the usage of existing terms but also in the development of new ones for expressing new concepts, naming new objects, etc. The ideas presented in the analysis and conclusions of this paper could be adapted to the needs of the students studying building and be helpful in developing one’s language skills and professional proficiency both in English and Lithuanian.

Structural analysis of the considered terms

Each term has “a recognizable form that is lexicalized to at least some minimal extent” (Wright 2002: 81), i.e. one word. Two-word terms differ from ordinary terms expressed by one word by the degree of complexity in naming. Being the combinations of lexical units, the terms give a possibility to deduce several major patterns according to which the terms are built. The arrangement of words in the term reflects the grammatical structure of the English and Lithuanian languages. Thus, the building of two-word terms can be brought into a system by revealing the main structures. The first element in an English two-word term usually determines the second one and is called the determinant, while the second word is called the nucleus (Sager 1990: 76). From the perspective of their grammatical structure terms of these languages can be compared and comprise such common models as:

1) **Noun + Noun**: attic window – pastogės langas, brick partition – plytų pertvara, concrete roof – gelžbetoninis stogas, construction management – statybos valdymas, floor component – perdangos elementas, gable window – frontono langas, inspection manhole – apžiūros šulinys, leaf wood – lapuočių mediena, roof bearer – stogo ilginis, safety gate – saugos vartai, snow cover – sniego danga, wind girder – vėjo sija.

2) **Noun + Verbal Noun**: In English there are terms the nucleus of which is expressed by a verbal noun naming the operation being done, while the determinant specifies the latter, indicating a) what material is used for the operation: board lining – lentų apkalas, timber boarding – apkalimas lentomis, vapour cooling – aušinimas garu, wood flooring – medinės grindys; b) where or to which part of the building the operation or activity is applied: ceiling heating – lubinis šildymas, indoor lighting – vidaus apšvietimas, leak/leakage testing – san darumo tikrinimas, pipe cleaning – vamzdių valymas, roof loading – stogo apkrovimas, sieve.
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3) **Verbal Noun + Noun**: is the structure where the determinant expressed by a verbal noun specifies the nucleus, e.g.: climbing/over-taking line – lėtėjimo/lenkimo linija, flushing gallery – išplovimo galerija, sighting mark – vizavimo žymė, stiffening girder – standumo sija, etc.

4) **Verbal Noun + Verbal Noun**: In some cases, both the determinant and the nucleus can be expressed by verbal nouns, e.g. ageing testing – senėjimo tikrinimas, breaking testing – trūkimo bandymas.

5) **Adjective + Noun**: artificial marble – dirbtinis marmuras, ceramic tile – keraminė plytelė, fibrous material – pluoštinė medžiaga.

6) **Present Participle + Noun**: The combination of the Present Participle acting as a determinant and a noun as the key word is a productive method in term building, e.g.: bearing lintel – laikančioji sąrama, closing line – uždaromoji linija, collecting manhole – surenkamasis šulinys, cooling air – vėsinamasisoras, drawing table – braižomasis stalas, folding door – lankstomosios durys, pivoting window – sukimasis langas.

7) **Past Participle + Noun**: Similarly, the Past Participle specifies a particular property of the nucleus making the word combination the term, e.g.: coloured cement – spalvotasis cementas, guarded crossing – saugojamoji pervaža, riveted girder – kniedytinė sija, scattered light – išsklaidytoji šviesa, suspended ceiling – kabamosios lubos, veneered door – faneruotosios durys, pivoting window – sukimasis langas.

There are many more two-word terms of building and civil engineering coined parallelly in both languages, i.e. by analogy according to patterns 1–6.

Being a determinant in a two-word term, the noun performs the attributive function as it defines the nucleus. Therefore, the English N + N structure is sometimes represented by Adj + N structure in Lithuanian, e.g.: amber vanish – gintarinis lakas, emergency lighting – avarinis ap vietimas, office building – administracinis pastatas, wall column – įleistinė kolona, zero mark – nulinė žyma.

Or vice versa – the Lithuanian N + N structure corresponds to the English Adj/Part + N, e.g.: adjusting shop – surinkimo cechas, commercial building – prekybos pastatas, cross-sectional area – skerspjūvio plotas, facing brick – apdailos plyta.

Lithuanian compound words can correspond to the English two-word terms having the structure N/Part + N, e.g.: boiler house – katilinė, caterpillar chain – vikšras, combustion chamber – kūrykla, drying machinery – džiovykla, foreign matter – priemaiša, fuel material – kuras, pipe line – vanzynės, sand paper – švitras, tail beam – skersinukas.

The English two-word N + N term may have a Lithuanian one-word adequacy, e.g.: boiler house – katilinė, caterpillar chain – vikšras, combustion chamber – kūrykla, drying machinery – džiovykla, foreign matter – priemaiša, fuel material – kuras, pipe line – vanzynės, sand paper – švitras, tail beam – skersinukas.

An international word or borrowing in the Lithuanian language can become the adequacy of the English term: collecting channel – kolektorius, digging machinery – ekskavatorius, insulating/insulation material – izolatas, scraper machine – skreperis, ship channel machine – farvateris, etc.

Lithuanian adequacies of the English terms can consist of more than two words. Compare: box column – dėžinio skerspjūvio kolona, cased column – apkaba sutvirtinta kolona, coursed rubble – eilinis skaldytų akmenų mūras, erection scheme – darbų vykdymo planas, nailed beam – vinimis sukaltoji sija, project management – rangovinis statybos valdymas, etc. It can be vice versa, i.e. Lithuanian adequacies are two-word combinations, while English terms are made of more than two words, e.g.: power-actuated fastening tool – statybinis pistoletas, scheduled erection time – montavimo trukmė.

A different degree of structural complexity appears when building a new terminological...
unit by adding one or more words to the existing term, e.g.: concrete block – betono blokas and fair-faced concrete block – apdailintas betono blokas, annual run-off – metinis nuotėkis and normal annual run-off – vidutinis metinis nuotėkis, distribution chamber – skirstomoji kamera and sewage distribution chamber – tekaly skirstomoji kamera, glass door – įstiklintos durys and simply supported steel beam – laisvai atremtoji sija and

In the examples given, a supplementary determinant specifies the nucleus more precisely, thus rendering the combination different meaning and building a new term.

A compound word is used as a determinant of the nucleus in both languages. English compound words are hyphenated, while Lithuanian determinant adequacies are one-word units, e.g.: low-limed cement – mažakalkis cementas, rock-type soil – akmeninis gruntas, site-mixed concrete – statybvietės betono mišinys.

Lithuanian two-word adequacies can be in the Plural, e.g.: arch timbering – arkiniai ramsčiai, bottled gas – balioninės dujos, escape door – avarinės durys, binder soil – rišlusis gruntas, window wall – įstiklintoji siena, tent roof – palapininis stogas.

The determinant of an English term expressed by the common case is conveyed into Lithuanian by an adjective (participle) or the Genitive of a Noun, e.g.: a) excess water – perteklinis vanduo, binder soil – rišlusis gruntas, site-mixed concrete – statybvietės betono mišinys.

The Instrumental in Lithuanian corresponds to the common case in English.
The arrangement of words in the terms under consideration reflects grammatical structure and its diversity in the two languages. Such terms function as stable ready-made units, not as combinations of separate words. Therefore, it is impossible for the determinant and the nucleus to exchange places, i.e. to change the grammatical structure of the term.

In Lithuanian, terms having the structure Adj/Part + N can undergo declensions, thus changing the endings of the two words combined into the term, e.g. *The revolving door of the post office got damaged – Pašto sukamosios durys sugedo. They need a new revolving door – Jiems reikia naujų sukamųjų durų. Do you happen to know where they could buy or order a revolving door? – Gal kartais žinai, kur jie galėtų nusipirkti ar užsisakyti sukamąsias duris?*

“The term must conform to the general rules of word-formation of the language” (Sager 1990: 89). So must a two-word term. The words are combined there into one unit obeying the grammar rules of a particular language.

**Linguistic analysis of the considered two-word terms**

Building and civil engineering terms include the naming of a great number of diverse activities, processes, materials, tools, machinery, buildings, their parts and components, objects, etc.

The basis of such two-word terms are the existing resources of common words which join into a word combination making a new unit with its own meaning. Linguistic links which get established between the words of such a combination help to perceive the meaning of the new unit.

The preciseness of the newly-formed concept is usually indicated by the determinant which defines the meaning of the nucleus, the main word of the unit, by specifying it and making the scope of the meaning of the nucleus narrower. Linguistic analysis deals with the meaning of the words in relation to each other, i.e. the relationship of two linguistic units (words) combined into one whole – the term.

In other words, “the nucleus of the compounds (the two-word combinations – L.K.), usually, the last element, can then indicate the category to which the concept belongs, and the determinant indicates the criterion for the subdivision of the category” (Cabre 1999:77). Thus, the attributive part of the term is subordinative, and, expressing the qualitative relation to the object, determines the meaning of the nucleus, making the word combination the term.

In both languages there are numerous examples of the terms in which the determinant defines the nucleus by naming the material from which the object is made, e.g. *clay brick – molinė plyta, concrete brick – betoninė plyta, sand-lime brick – silikatinė plyta. By the way, the English brick has not the equivalent word plyta in Lithuanian but other semantic adequacies, e.g. glass brick – stiklo bokas, peat brick – (durpių) briketas. Or: ashlar masonry – taštytų akmenų mūras, brick masonry – plytų mūras, concrete masonry – betoninių blokų mūras, tile masonry – tuščiavidurių plytų mūras. By referring to the shape of something expressed by the nucleus, the determinant specifies it, e.g. cross-shaped column – kryžiškojo plano kolona, conic shell – kūgiškasis kevalas, folded door – lankstomosios/klostinės durys, shaped steel – fasoninis plienas, helical reinforcement – spiralinė armatūra.

Similarly, the determinant can present a configuration, thus depicting the nucleus: annular vault – cilindrinis skliautas, circular cofferdam – cilindrinė užtvara, corrugated sheet – banguotasis lakštas, dash line – punktyrinė linija, deformed bar – rumbuotasis strypas, figured glass – raštuotasis stiklas, perforated brick – skylėtoji plyta, three-quarter brick – trikampė arka, etc.

The determinant defines the nucleus, distinguishing it from other objects of the same kind on the basis of external likeness to something, e.g. herringbone masonry – eglutiškasis...
The determinant may be associated with the origin of the object (pattern, motif): a) the country or city, e.g. China clay – kaolininis molis, Maltese cross – Maltos kryžius, Persian column – persiškoji kolona, Venetian arch – veneciškoji arka; b) the nation, e.g. English/Dutch bond – angliškoji/ olandiškoji perriša, French arch – arkinė sąrama; Italian roof – valminis stogas; c) the name of a person: mansard roof – mansardinis stogas, Serlian motif – Serlianos motyvas, Solomonic column – Saliamono kolona, Vitruvian scroll – Vitruvijaus užrašas.

The examples given above show that, in some cases, the determinants of the corresponding terms in both languages are identical (English – angliškoji, Maltese – Maltos, Venetian – veneciškoji, Persian – persiškoji, Mansard – mansardinis, Serlian – serlianas, Solomonic – Saliamono, Vitruvian – Vitruvijaus), while, in other cases, the words representing determinants are different, although they convey the same meaning, e.g. French arch – the arch which looks like a lintel, is conveyed into Lithuanian as arch lintel (arkinė sąrama), Italian roof looks like and is a hipped roof, so its adequacy in Lithuanian is valminis stogas (= hipped roof).

The method of making an object is expressed by the determinant and can define the meaning of the nucleus, e.g. baked brick – degtoji plyta, enameled brick – glazūruotoji plyta. The determinant expresses the method of object operation: folding door – suveriamosios durys, revolving door – sukamosios durys, sliding door – stumdamosios durys.

Sometimes, the determinant reveals the method of operation by fixing the time of performing it, thus specifying the object: post-stressed/post-tensioned concrete – įtemptasis gelžbetonis and prestressed concrete – įtemptasis gelžbetonis. They differ in meaning as prefixes post (after) and pre (before) denote the time when and where the reinforcement was put. Therefore, Lithuanian adequacies in dictionaries are explained in greater detail post-tensioned
concrete – įtemptasis gelžbetonis (kai armatūra įtempiama į betoną) and pre-tensioned concrete – įtemptasis gelžbetonis (kai armatūtra įtempiama į atsparas).

The determinant and the nucleus seem to have exchanged places in Lithuanian adequacies, when compared to the English terms, e.g. loading shovel – vienakaušis krautuvas (should be: shovel loader), sheet steel – plieninis lakštas (should be: lakštinis plienas), etc.

Possibilities of different determinants to relate to the nuclei are shown by the following example. Bricks “are rectangular blocks of baked clay used for building walls” (Cobuild 1995: 110). Determinants can express: 1) material the brick is made from: calcium silicate brick – silikatinė plyta, clay brick – molio plyta, clinker/Dutch brick – klinkerinė plyta, concrete brick – betono plyta, glass brick – stiklo plyta; 2) the place it is used in: chimney brick – dūmtraukio plyta, floor brick – grindų plyta; 3) the purpose of using it: building brick – statybinė plyta, facing brick – apdailos plyta, fire brick – ugniai atspari plyta (to prevent from fire or heat), lining brick – parušalos plyta, paving brick – grindinio plyta; 4) the shape or structure: air /hollow brick – tuščiavidurė plyta, key brick – pleištiškoji plyta, etc. The link between the components of the given word combinations got established and the units became terms with their specified meaning retaining the common nucleus in all terms.

If one of the components – the determinant or the nucleus – is expressed by words of different meaning, such terms are considered to be not equivalents but adequacies. For example, crossing is a passage to a place on the other side (Cobuild 1995: 224). Compare the following English terms and their Lithuanian adequacies: bridge crossing – tiltinė perėja, cattle crossing – bandos viadukas, guard crossing – saugojamoji pervāža, highway crossing – kelių sankryža, level crossing – vienalgyje sankirta, stream crossing – perėjimas per upę. Adequate Lithuanian nuclei of the terms given (perėja, viadukas, pervāža, sankryža, sankirta, perėjimas) convey the meaning of the English word crossing. The determinant in these terms acts as an advocate which discloses the actual meaning of the term. One more example of this kind: black mineral oil – mazutas, boiled oil – linų pokastas, burning oil – žibalas, engine oil – mašinų alyva, flux oil – bitumo skiediklis, pine oil – terpentinas, rock oil – nafta, turpentine oil – terpentinas. One may get lost in finding out the meaning of the terms given if he has no knowledge about the uses and types of oil as the word oil has slightly different meanings. He is to find Lithuanian adequacies in dictionaries, as the determinant of a term may not always help to understand the term.

Similarly, the English word column is translated into Lithuanian as kolona, stratamstis, stulpas. One is to learn and to know that different determinants condition the choice of Lithuanian adequacies, e.g. erection column – montavimo stovas (stovas is not even given as an adequacy of column in dictionaries), lighting column – apšvietimo stulpas, pier column – atraminis stratamstis, wall column – jleistinė kolona. Thus, it is not possible to derive an exact concept of the term even knowing the meanings of both constituents of it – the nucleus and the determinant. It is indicated that “words have different distribution because they have different meanings” (Palmer 1982: 62). However, being the determinants in a two-word term the words of different meaning may acquire the same semantic function and given rise to term variations.

There may be competing (or parallel) lexical forms of the determinant in an English term, e.g. drop/false/suspended ceiling – kabamosios lubos, freehand/preliminary/rough drawing – eskizas, broken/crushed/rubble stone – skaldytas akmuo, built-up/converted/saw(ed)/unedged timber – pjautinė mediena. Such cases of determinant variations should be looked upon as synonyms – they mark the same concept, differ in their expression and have one and the same adequacy in Lithuanian.

On the other hand, the same nucleus in the two languages can be endowed with different
properties, i.e. to define the nucleus a different determinant is used, e.g. air channel – vėdinimo kanalas, dead light – aklinas langas, mushroom floor – besijė perdanga, naked floor – juodgrindės, rock boring – sprogdamasis grežimas, undressed timber – neobliuotoji mediena, etc.

In some examples given above the link between the Lithuanian and the English determinants can be traced. For example, the verb to air by its meaning “to let the fresh air” is the adequacy of the Lithuanian verb vėdinti; the determinant dead by its meaning “not in use” can be compared to the Lithuanian adjective aklinas “hermetic, without any gaps”, which is close to the same meaning; English naked and undressed have the meaning “not covered by its natural covering, bare” the compound noun (juod + grindės) has the meaning prastosios, apatinės grindys; neobliuotoji has not got the same meaning as undressed, but directly names the unexecuted action – treatment of timber-using a special tool, a plane (oblius).

If one imagines how boring of rock is done, i.e. some explosives are used so he can trace the meaning of rock boring. However, metaphoric use of some words such as determinants in two-word terms, hides the meaning of the term, e.g. mushroom floor is the same as girdles floor and have the Lithuanian adequacy besijė perdanga; horse scaffold – ožiniai pastoliai. Why horse in English and goat in Lithuanian? This is not only the question of the originality of each language in using different words determinants. Being one of extra-linguistic factors differences in choosing various determinants to render the same concept express different experiences of particular native speakers.

Conclusions

The organization, or arrangement, of words into a term depends upon the grammatical structure of an adequate language, while the content of the term includes the choice of words and the relation between them. In order to have language competence in a special field one should know specific terms of the source language and their adequacies in the target language.

The English terms under discussion have 4 clearly expressed different semantic adequacies in Lithuanian:
1. equivalents are terms identical both in structure, lexical expression and meaning,
2. terms having the same lexical expression but differing in structure because of the grammatical differences in the two languages,
3. terms having the same structure but different lexical expression,
4. terms which differ both in grammatical structure and lexical expression.

Comparison of two-word English and Lithuanian terms of building and civil engineering reveals a number of identical structural patterns in these languages. One-word terms of one language can be adequacies to two-word terms in the other. Structural diversity of the terms under discussion reflects the grammar peculiarities of the languages.

There are synonymous lexico-semantic structures of terms in each language. Searching for the identity of term meaning in the two languages, a great variety of links between the nucleus and the determinant was found. The analysis of the relationships leads to identifying the term.

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STATYBOS IR CIVILINĖS STATYBOS TERMINUS REIŠKIANTSYS DVIŽODŽIAI JUNGINIAI ANGLŲ IR LIETUVIŲ KALBOSE

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Straipsnyje nagrinėjami anglisų ir lietuviški dvižodžiai statybos ir civilinės statybos terminai jų gramatinės ir semantinės struktūros atžvilgiu. Remiantis gretinamu tyrimo metodu, išnagrinėtas bendrosios ir skirtinos aptariamųjų terminų struktūros. Išskirta keletas pagrindinių dvižodžio termino struktūrų šiose kalbose. Šių dviejų kalbų gramatikos ypatumai atspindi skirtose terminų struktūrose. Aptariamas semantinis tokių terminų kai kurių sudedamoji dalių atitikimas ar neatitikimas ir paaškinamas gretinamųjų terminų reikšmės tapatumas. Greitinamas tokių terminų nagrinėjimas turėtų prisidėti prie greito tam tikrų gramatinės konstrukcijos atpažinimo ir supratimo bei vartojimo. Greitinamųjų anglisų ir lietuviškų terminų atitikimas reiškia jų reikšmės tapatumą, būtent tai ir yra svarbu dalykiniam bendravimui.

Reikšminiai žodžiai: atitikimas, sudedamoji dalis, sąvoka, determinantas, tapatumas, branduolys, struktūrinis modelis.

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