Terminology Variation: On the Concept of Synonymy in the Light of an Interlingual Analysis of a Terminology Field

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Abstract

The author presents a pragmatic approach towards differentiating near or quasi-synonyms covering a specific terminology field in the terminology of art history and museology − the one denoting various ceramic objects. It is based on the analysis of concepts by means of definitions available on the internet. This analysis is subsequently compared with the homologous terminology field in Slovak in order to determine functional translation equivalents as the source language of the translation is Slovak (exhibition materials) and the target language is English. The paper shows the issue of non-symetricity of internal structure of the same field in two languages, revealing terminology gaps and conceptual vagueness of some terms.

The research was inspired by a translation from Slovak into English commissioned by the Slovak National Museum focusing on the annotation of collection items permanently exhibited at Bratislava Castle.

Our analysis started with identifying basic and possibly problematic terms in both languages by term mining in parallel texts, which yielded following sets of most frequently occurring basic terms in both languages[1], arranged in alphabetical order:

CERAMICS	FAJANSA
CHINA/CHINAWARE	KAMENINA
EARTHENWARE	KERAMIKA
FAIENCE	MAJOLIKA
MAJOLICA/MAIOLICA	PORCELÁN
PORCELAIN	
POTTERY	
STONEWARE	

Even a furtive look at these terms reveals a non-symetricity of both sets and naturally essential questions arise: Why are there so many English terms covering this field compared to the poorer Slovak set? Does the English set comprise synonyms and variants, e.g. *porcelain and china, ceramics and pottery*? What are the relations between them? Can one use them in one text and the same communicative situation?

We can assume that richer English terminology is a result of unsettled terminology created by either different geographic usages, level of specialisation, schools, and periods. Or, and this would be the second option, this terminology is more fine-grained than the Slovak one. To put it more linguistically in the spirit of Trier's and Coseriu's theory of semantic fields, the English terminology field of ceramics might be structured differently and reflect extralinguistical reality using a higher number of language denominations.[2] This theory provides a method to determine relations between the items of a terminology field for they are conceptually and semantically closely related, their concepts and meanings are

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1   We do not analyse more specific English terms (usually composed of independently existing base „ware" combined with different modifiers such as creamware or delftware) and Slovak ones, e.g. belnina.

2   The theory of lexical (or semantic) fields was put forward by German and Swiss scholars, especially by Jost Trier and further developped by Eugene Coseriu in the 1960s and 1970s.

mutually determined and delimited.

In order to identify the conceptual structure of this field in both languages and to verify or reject the hypothese of synonymity, we are going to pay attention to the delimitation of individual concepts, to which English terms refer, by analysing available more or less reliable definitions. However, the question remains as to whether a definition will be sufficient to determine relations between analysed terms and to prove interlingual equivalence.

Definition mining and analysis

Definition represents sort of a microsystem consisting of hierarchically ordered characteristics of a concept and their relations, which enable to describe, to circumscribe and distinguish the concept.

Terminological theory fosters traditional Aristotelian definition, which begins with the nearest superordinate concept and specific features (genus term and differentia), i.e. it "systematically identifies a concept with respect to all others in the particular subject field" Sager (1990: 42). This so-called ideal definition with specific editing criteria to follow is referred to as classic, intensional or comprehensive definition[3] and is most frequently encountered when describing objects and as we have witnessed also when defining different types of wares. To cite an example of PORCELAIN:

(1)   *A glassy white, vitrified ceramic with a degree of translucency, extreme hardness and a very fine surface, ideal in color and texture for decorating.*[4]

"Porcelain" is defined with the aid of the closest genus, which is "ceramic", and the characteristics that distinguish this specific type of ware from all other types of "ceramic ware":

- Colour (glassy white)
- Vitrified
- Partially or completely translucent
- Extremely hard
- Having fine surface

The comprehensive definition is usually coupled with the extensional one that ISO 740 defines as "an enumeration of all species which are all on the same level of abstraction"[5]. It is a common phenomenon to find so-called "mixed definitions" that consist of comprehensive as well as extensional parts.

As our componential analysis pays attention to the structure of relevant definitions – namely classifying and specifying elements (GEN and SPE), we have to take into account and avoid three potential pitfalls:

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3   ISO 740 „An intensional definition (in the classical sense) consists of a listing of the characteristics of the concept to be defined, i.e. the description of the intension of the concept. For this purpose the nearest genus that has either been defined already or can be expected to be generally known, and the characteristic(s) restricting (determining) this genus are given. One or several of these characteristics also differentiate the concept to be distinguished from other concepts of the same horizontal series".

4   www.steincollectors.org/library/glossary.htm

5   For example, one of the definitions for CERAMICS, reads as follows: The main categories of ceramic wares are: earthenware, faience, stoneware, creamware and porcelain. www.french-corner-antiques.com/glossary/

- features included in a definition reflecting the concept structure but which can never cover the totality of a concept Seppälä (2004: 37). This can explain the existence of dozens of definitions of the same concept featuring different defining elements.
- in spite of numerous rules and efforts, the definition remains subjective and culturally motivated, hence the need for constant redefining.
- the level of generalisation of the definition depends on the level of generalisation of the employed term referring to the nearest superordinate concept. In case of using e.g. indirect genus – i.e. distant superordinate term, the number of specifying defining elements increases Seppälä (2004: 99).

Taking into consideration the dubious quality of existing definitions and all kinds of their possible formal and conceptual deficiencies, our goal was to gather as many definitions as possible by means of using the simple yet invaluable function of the google definition search engine due to the fact that the author's view was the position of a translator for whom the internet is the immediate and most efficient information provider. However, it was necessary to perform a quality check with the results in terms of relevancy and reliability of sources. Thus we could manage to reduce possible subjectiveness and inconsistencies.

The quality check of internet definition mining can be summarised as follows:
- the number of definitions per term – from 13 to 15 (only 3 in case of CHINA);
- the number of relevant definitions per term in terms of field classification – from 7 to 13 (we excluded WordNet and Wikipedia definitions and kept commercial web pages focused on the sale of the works of art (collectors, producers), university, gallery, and museum pages offering glossaries;
- quality issues – a minority of definitions resembles encyclopaedic entry and some of them show formal and content deficiencies, e.g. not featuring GEN at all;
- in most cases, definitions cover locative (place of activity), resultative (object) and processual meanings (activity);
- the number of expanded entries point out conceptual and linguistic differences of the head term when compared to its related terms.

Example of definition analysis

Internet definitions referring to the term *ceramics* feature both processual and resultative meanings. However, our attention is drawn only to the concept of "ceramics" referring to a set of specific objects and not to the one of activity being carried out in order to create these objects. Selected definitions delimit the scope of this concept by referring to (closest) genus, which is:
- Articles
- Artefacts
- Wares (only this one being the nearest superordinate term)

As for the rest of the defining elements, the set of SPE that can be found in most definitions show that this kind of "article" is fired (TECHNIQUE) at a certain temperature (MEASURABLE PROPERTY) and made of clay (MATERIAL) and has following PROPERTIES: it is functional and decorative, porous, and light-coloured. Two definitions out of six indicate that we are dealing with a GENERIC term:

(1) **articles** _made of clay that are shaped while moist and hardened by heat._
library.thinkquest.org/6275/Glossary.html

(2) _deliberately fired clay_ **artifacts**, _such as ceramic vessels._
farahsouth.cgu.edu/dictionary/

(3) _Functional and decorative_ **objects** _made from clay._
www.ncpublicschools.org/curriculum/artsed/scos/visualarts/vglossary

(4) **generic term referring to all baked or fired wares** _typically made from clays or clay compounds._
www.replacements.com/mfghist/dictionary2.htm

(5) **Common term for any object made of clay** _and fired over 500 degrees centigrade. The main categories of ceramic wares are: earthenware, faience, stoneware, creamware and porcelain._
www.french-corner-antiques.com/glossary/

(6) **Slightly porous, light-colored ware**, _usually fired at about 1,050° - 1,080°C. It must be glazed to make it impermeable._
www.deutscheshaus.cc/html/library_beer_steins/material_definitions.html

Interlingual comparison of morphologically related terms

The next step of our research consisted of a comparison of morphologically related pairs of terms (English – Slovak) in order to determine the degree of their conceptual equivalence.
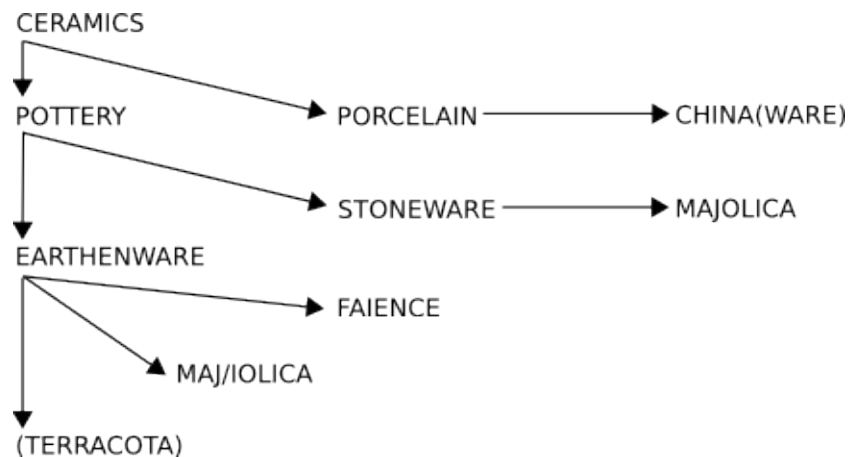
We cannot provide Slovak definitions as they are lacking in the specialised dictionary of arts or museology, we, therefore, have to settle for monolingual entries, composed of extensional and intentional definition from a general Slovak dictionary of apparently equivalent term:

(2)   KERAMIKA, -y ž.
1. výrobky z pálenej hliny alebo iných plastických zemín: úžitková, stavebná, technická keramika, modranská keramika
2. keramikárstvo;

Apart from being a polysemous word at least in general language (referring to a concept of a set of wares and to the one of this craft), the first meaning of _keramika_ seems to be as similarly generic as its English counterpart – this "ware" is fired (TECHNIQUE) made of clay or specific types of clay (MATERIAL) and can be decorative or functional (PROPERTIES). Thus we can see that the definitions of both languages share besides GEN ("articles") also three different SPEs.

We applied the same approach when analysing definitions and their fundamental elements for the rest of the selected terms and its results can be read in the table.

In spite of inconsistencies identified in analysed definitions, this research enables us to sketch a more or less adequate structure of this terminology field including hype/hyponymic and isonymic relations:

CERAMICS

POTTERY → PORCELAIN ——→ CHINA(WARE)

→ STONEWARE ——→ MAJOLICA

EARTHENWARE

→ FAIENCE

↗ MAJ/IOLICA

(TERRACOTA)

Definitions suggest that essential SPEs of the English terminology field are represented by the type of clay and temperature of firing the wares in a kiln, which implicates other qualities. A secondary factor it is the origin and type of decoration or glazing that can be used in the differentiation process.

However, the abovementioned graph only indicate the internal structure of the field and cannot be treated as definitive, as it presents several unsettled issues concerning hierarchy and synonymy (e.g. porcelain and china) of some terms. That is why we had to expand our research and consult more extensive texts posted on the web pages of different museums. In spite of the fact that we searched only British museums, mostly focusing only on ceramics, we have encountered extensive variation in conceptual delimitation of several terms:

1. POTTERY – this term belongs to those imprecise terminological units whose definitions do not comprise many SPEs. Though it might be as generic as *ceramics*[6], materials of the British Museum indicate that "it is used interchangeably with terracotta and earthenware", which would mean that we deal with a hyponym of *ceramics* and synonym of the two terms. The other possibility would follow our conceptual structure and keep it as a superordinate term for *earthenware* and *stoneware*, or only for "heavier types of these two classes of ceramic ware".

2. EARTHENWARE – one of the most demanding terms and concepts to identify and delimit[i]. All definitions and descriptions are based on comparison of this kind of ware with *porcelain* and *stoneware* in terms of thickness, translucency, hardness, temperature, porosity, watertightness etc[7]. According to the British Museum web page it might be a synonym of *pottery* and *terracotta*, as "it is used interchangeably" with them. However, three sources suggest that it falls into the category of types of *pottery*, i.e. hyponym. This opinion ties with other three sources that claim it to be *ceramic (ware)* – "the first and most primitive kind of ceramic ware", the other two being *stoneware* and *porcelain*.

3. CHINA – in general language, the term is used generically for "ceramic tea-things" or it functions as a synonym of *porcelain* but in specialised communication it refers to a special type of porcelain, the so-called *bone china* and if it occurs without the modifier "bone" it is clearly the case of ellipsis.

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6   „A term in normal use for all ceramic wares, without exact definition."
    http://www.wedgwoodmuseum.org.uk/welcome.htm

7   Earthenware may sometimes be as thin as bone china and other porcelains, though it is not translucent and is more easily chipped. Earthenware is also less strong, less tough, and more porous than stoneware - but its low cost and easier working compensate for these deficiencies. Due to its higher porosity, earthenware must usually be glazed in order to be watertight.

4. MAJOLICA – the term can be spelled both with "j" or "i" but it seems to have differentiating character. According to some sources *majolica* is applied for contemporary tin-glazed earthenware, while the original Italian spelling *maiolica* variant refers to vividly painted tin-glazed earthenware made in Britain in the 19th century as well as for this kind of earthenware made in Italy – materials vary in the period the items were made – only in Renaissance or later), maybe that is why one can find museum departments entitled *Italian maiolica* with the modifier *Italian.*

5. FAIENCE – If one takes the opinion of the British Museum at face value, "maiolica, faience and delftware are the same type of ceramic ware but for the origin", thus we seem to deal with synonyms but the question is whether experts, when speaking about the same item, used them interchangeably.

Our research on selected terms clearly shows that even expert communication lack consistency and can be ambiguous when it comes to basic terms. Definitions and web pages enabled us to solve only part of the internal structure of this terminology field and the only way out of this trap is to stick to one of the sources and its conceptual structure. Therefore we opted this time for paper dictionary *Miller's Pocket Dictionary of Antiques* edited by Mitchell Beazley and published in London. We resume the ambiguous terms analysed just a few lines above:
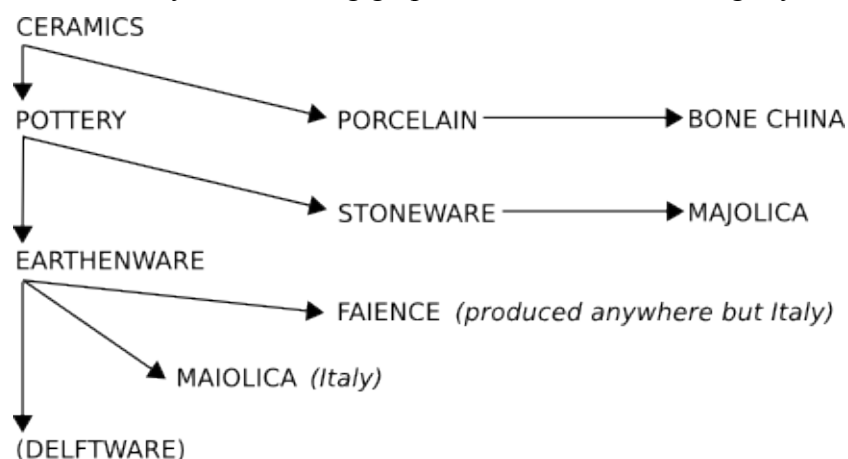
POTTERY – "collective name for earthenwares and stonewares, but not china and porcelain, and hand-made rather than cast".

EARTHENWARE – "pottery with a porous body, not watertight unless glazed; fired at lower temperatures than stoneware or porcelain so that not all the silicates fuse".
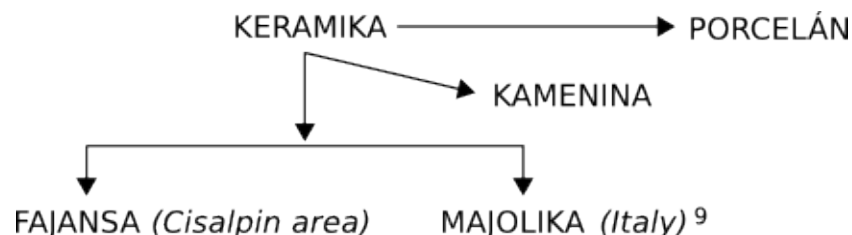
MAJ/IOLICA – spelled with J refers to richly enamelled stoneware with decoration developed by Minton, mid 19th century; spelled with I applies to tin-glazed earthenware from Italy, produced since the 16th century.

FAIENCE – This kind of ceramic ware, spelled also *fayence*, was named after the Italian town of Faenza and specifically referred to tin-glazed earthenwares, but it is actually used to describe products made anywhere but Italy, where the same wares are called "maiolica".

According to this dictionary, the resulting graph had to be therefore slightly modified:

A comparison of the English terminological field to the Slovak one[8] reveals conceptual and terminological gaps, i.e. less complicated conceptual structure:

We sum up our conceptual and consequent intra and interlingual analysis of the terminology field referring to *ceramic wares* in two tables:

ENGLISH TERM	SLOVAK EQUIVALENT
Ceramics	Keramika
Ceramic ware	Keramické výrobky
Pottery	▫ ▫ keramika ▫ ▫ hrnčiarstvo
Earthenware	▫ ▫ keramika ▫ ▫ pórovina[9]
Stoneware	Kamenina
Majolica	(Mintonská) kamenina
Faience	Fajansa
Maiolica	Majolika (but not the one produced in Slovakia, e.g. in Modra)
Porcelain	Porcelán
Bone china	Kostný porcelán
Delftware	Delftská fajansa
Terracotta/terra cotta	Terakota

Table 2. – English-Slovak equivalent table

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8 MAJOLIKA - keramika s rôznofarebnou glazúrou a jemnou maľovkou, fajansa.
FAJANSA - jemná keramika, obyč. maľovaná, majolika;
PORCELÁN - ker. materiál vypálený zo zmesi kaolínu, živca a kremeňa; výrobky z neho;
KAMENINA - tvrdý glazúrovaný keramický materiál používaný v stavebníctve, v chemickom, potravinárskom, poľnohospodárskom a umeleckom priemysle; výrobky z neho;

9 Although it features as a second Slovak equivalent, it is never used when phrasing an annotation for a ceramic exhibit, for it is a technological term.

SLOVAK TERM	ENGLISH EQUIVALENT
Keramika	□ □ ceramics (*generic term*) □ □ pottery (*collective name, which may not be used for all kinds of collection items*) □ □ earthenware
Kamenina	Stoneware
Porcelán	Porcelain
Fajansa	□ □ Faience/fayence □ □ Stoneware[10]
Majolika	□ □ Maiolica □ □ Stoneware

Table 3. – Slovak-English equivalent table

Conclusion

Our analysis proved to be only partially successful. We managed to roughly delimit the conceptual structure of the analysed field by means of componential analysis, using English definitions acquired from the internet. Due to the fact that the quality of treated definitions varied greatly, and therefore they could not be used as the only source and neither could the reliable one, the research had to proceed by consulting documents from British museums and producers and Slovak experts.

Therefore the answer to the question asked in the beginning of this paper is no, definition(s) cannot represent the only basis for revealing internal relations of a terminology field. Apart from the term mining in a quality specialised corpus, discussion with an expert from both English and Slovak field circles proved to be essential.

To sum up the interlingual analysis, Slovak terms came out to be more extensive and polysemous whereas the English ones more intensive. The English terminology field of ceramics proved to reflect extralinguistical reality by means of different structure.

The research has also shown that one has to always take into account the conceptual variation in treating this field depending on specific source or author. The field does not comprise real terminology synonyms, we can speak only of contextual ones for they can be used interchangeably only in specific contexts. In other contexts they behave as hyperonyms/ hyponyms. In order to refine these delimitations and possibly solve for example the relation between *earthenware* and *pottery* we could proceed to the textual level and identify the most frequent collocations of analysed terms. Further analysis would even allow the compilation of a glossary.

To conclude our paper, it must, however, be admitted that this approach cannot be practised with every commissioned translation because suggested analysis goes much deeper than can be commonly carried out and requires much more time than a usual tough deadline for a translation can offer.

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10 Two equivalents for *fajansa* and *majolika* are to be accepted only as translation equivalents whose usage was required by a specific original Slovak text. Their status of equivalents is to be verified in further research.

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iWeb definitions for EARTHENWARE

● **A clay fired at low temperatures (cone 010-02**) where it does not develop maturity (vitrify). Earthenwares are porous and therefore not as strong as stonewares and porcelains (sintering is the primary particle bonding mechanism). Earthenware glazes are usually very bright colored and if the glazes are properly fitted, earthenware can be quite strong and functional. Terra Cotta is a special type of earthenware where red burning clay is used. /Digitalfire's http://CeramicMaterials.Info (also Ceramic-Materials.com)
www.digitalfire.com/education/glossary/

● This term has been used interchangeably with terracotta and with pottery. /British Museum Materials Thesaurus/
www.mda.org.uk/bmmat/mathese.htm

● **clay fired at a low kiln temperature around 800–1,100°C** . Earthenware is not very strong and is porous. /A long-time collector of Chinese ceramics, Dr Tsui's gift to the Australian people is one of the most significant made to the Gallery./
www.nga.gov.au/TTTsui/Appendices/Glossary.htm

● an opaque, porous and coarse **ceramic ware that is fired at a relatively low temperature (700º–1200ºC). /**The Gardiner Museum is the only museum in Canada entirely devoted to ceramics. /
www.gardinermuseum.on.ca/edugloss.aspx

● **Pottery made from simple clay mixtures, fired or baked under relatively low heat**. It is quite porous, non-translucent and soft. /Newel, LLC is the largest and most extraordinary antiques resource in New York City. GLossary of Decorative Arts/
www.newel.com/Glossary.aspx

● **porous ceramic material fired to only about 800°C (1500°F)**; sometimes made impervious to liquids by the addition of a lead glaze, as in Hafner ware and folk pottery; see stoneware. /Welcome to the Beer Stein Library —
By far the largest on-line repository of information about collector beer steins anywhere./
www.beerstein.net/articles/bsb-c.htm

● **A lowfired form of pottery or objects (below 1100 o C, 2012 o F**) made from fire clay, which is porous and permeable. The clay can be any color although iron red is usually associated with Terracotta. The low temperature vastly expands the range of glaze colors available these are often alkaline or lead based. /Introduction to Ceramic Terms and Definitions - výrobca/
www.turnerpottery.com/glossary_of_ceramic_terms.htm

● **pottery made from fired clay** which is porous and permeable. Earthenware is fired at lower temperatures than china. Earthenware may be be glazed or unglazed, with typical colors including brown, red, or buff. Varieties of earthenware include terra cotta, faience, and majolica. An example of earthenware is Johnson Brother's Old Britain Castles-Pink. /Replacements, Ltd. (located in Greensboro, NC) has the world's largest selection of **old & new dinnerware**, including china, stoneware, crystal, glassware, silver, stainless, and collectibles./
www.replacements.com/mfghist/dictionary2.htm

● **A non-vitrified (porous) ceramic, kiln-hardened at 850°C-1000°C**, synonymous with "pottery". Requires glazing to become non-porous. /Stein Collectors International/
www.steincollectors.org/library/glossary.htm

● (German-Irdenware, Topferware) - **A colored mass that is porous (absorbs liquid) until is is glazed. It is fired at a temperature around 1,000°C.**
www.deutscheshaus.cc/html/library_beer_steins/material_definitions.html