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REVISITING TERM STUDIES IN MODERN POLY-CULTURAL  
AND POLY-LINGUAL CONTEXTS: METHODOLOGICAL APPROACH

## Abstract

The analysis of the issues in term studies showcases that the scholars' attempts to come to the unified approach to the definition of the term has not been successful yet. No longer is the academic world seen as numbers of regional scientific schools across geographies. On the contrary, globalisation has significantly affected academia and the respective product of science. The subject matter of the research links to poly-culturalism and poly-lingual communication in the contemporary world of science. It aims at the description of *monomial* and *polynomial* – proposed substitutes for set (irreversible) term expressions in languages for specific purposes when digitized. It is suggested that an interdisciplinary dialogue between linguistics in Saussure's concept and philosophy, psychology, neuroscience, and computer science would ultimately make the world catch up with ICT in the digital era. Robotics, automation of processes are soon to absorb vast domains of specialized knowledge. As formal and logical treatment of language helps employ algebraic tools for linguistic analysis, comparative analysis between terms in terminology and an algebraic expression evidences similarities that may hardly be ignored. Thus, an algorithmic description of terminology could generate an infinite number of products from a finite number of essential elements.

*Keywords:* monomial, polynomial, term studies, language for specific purposes, poly-culturalism, poly-lingualism.

## Introduction

A language as an organic system is observed to be progressively evolving into a cybernetic body because by exploring structures, constraints and possibilities, and it appears similar to cybernetics these days. Here it is not about cybernetics as the 'all digital thing'. It is about the shared poly-cultural and poly-lingual domains, as well as about differentiation between natural system (natural language) and machines inasmuch "a conversation between humans is different in scope, meaning and complexity than a conversation between machines or a human and a machine", according to L. Werner (2017, p. 1) in *Cybernetics: state of the art*. Broadly speaking, the essential goal of cybernetics lies with under-

standing functions and processes of systems, defining such, and where systems incorporate circular causal relationships. It means that the key focus is how anything (1) processes data, (2) responds to data including changes, if any, and (3) can be changed to accomplish the first two tasks. To put it plainly, it is about a circular causal relationship, in which action by the system generates some change in its environment; next, such change gets reflected in the system, known as feedback, which, consequently, results in a system change.

Similarly, it is suggested to view languages for specific purposes (LSP) as terminologies that make part of a terminology system along with their elements, i.e. terms and term clusters, and their relationships, affected by the system, on the

one hand, and on the other, as one that drives such changes in the system. It is presented that functions and processes in terms “coinage”, “usage” and “translatability” in poly-cultural and poly-lingual contexts are critically important nowadays, especially for data mining and processing, moving from “individual”, or manually controlled processes to “the system”, artificial intelligence (AI) and automation, i.e. the system-level control.

As L. Khachatryan (2019, p. 6) stresses out that “the world is reflected in the consciousness of an individual through the symbolic system of language”, and “the dependence of language and thinking is more vivid and is largely manifested in natural language”, it is moved further that logical and cognitive chain of processes, which take place in an individual’s cortex and neocortex, in communication under professional settings seeks as much independence as possible in terms of the semantics of the scientific language and linguistic means in natural settings. What can also be relevant from an “individual – audience – system” perspective is the model in one of the conclusions by H. Hovhannisyanyan (2020, p. 25): “in modern understandings, the operational field of rhetoric expands by adding various methods and forms of individual-to-individual communication ... to the individual-to-audience model”.

To the above extent, LSP as a branch of applied linguistics for the paper is seen other than an approach to second language acquisition, teaching and training, associated with the goal(s) to meet the specific needs of learners in their education jobs and professional training<sup>1</sup>. Some technical lexis makes the object of the research in the poly-cultural and poly-lingual contexts of global professional communication and embodies into set term expressions, or clichés, or term

clusters of specific nature, which may challenge the generally accepted approach to term studies.

Thus, the research objectives are as follows:

- (i) review of the classical difference between a word and a term as a traditional vision in term studies, underlining the linguistic gaps,
- (ii) introduction of monomials and polynomials in LSP in the light of the “system” approach for digitization goals in future, considered a novice in the contemporary methodology. English and Ukrainian for Audit and Accounting<sup>2</sup>, which serves the specific domain of knowledge and describe the use of LSP corpora in the mentioned languages, exemplify poly-cultural and poly-lingual facets.

The paper employs generally adopted scientific methods such as formal and logical, systemic, structural and functional, general logical methods of theoretical analysis, i.e. analysis and synthesis, generalization and abstraction, comparison, modelling, etc.; the experimental techniques following the observational research. Next, linguistic field research helps collect data, analyze and describe the findings based on the use of language corpora in various domains of specialized knowledge as exemplified in English and Ukrainian, on the one hand. On the other, the qualitative and quantitative, descriptive and structural methods helped present the analyzed data in relevant conclusions.

<sup>1</sup> Here LSP is not content- or theme-based language instruction. LSP studies, within the focus on language variation across particular subject fields, vary from genres, discourse, professional communication, stylistic features to technical language. However, the emphases of these issues are beyond the scope of the paper.

<sup>2</sup> The sample as part of methodology comprises 261 terms selected from the *Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements* (Volume I) validated by the International Auditing and Assurance Standards Board (IAASB) as of 2017 and 2018. Poly-culturalism and poly-lingualism accompany each other, as the research material is the glossary of terms accepted globally by professional communities irrespective of languages and locations. It is stated that such examples may support evidence and need in substitution of the term “term” with a monomial for compound and complex term clusters and polynomial for conjunction bound terms, respectively, when LSP is paired with ICT, computer science, neuroscience and aims at the design of specialized dictionaries, including bilingual and poly-lingual LSP dictionaries, and others without limitation.

## Languages for Specific Purposes in Poly-Cultural and Poly-Lingual Contexts

In order to solve the issues of unification and standardization of terms in terminologies, or LSP, it is obvious why researchers and scholars learn and analyze term patterns, regularity and trends in a particular terminology, in fields of science and technology etc., accounting for their determinants. It is supported what has been done to research ways and means of term coinage, describe lexical and grammatical, semantic values of terms, active and frequent ways of term formation employing affixation, stem building, conversion and so on, in particular. Of great importance is understanding of genesis, development and perspectives of terminologies, as well as the vision of collaboration with other fields and sub-fields not only in linguistics but also with other sciences.

The history of the Ukrainian terminology as science goes back to the Kievan Rus, to the original *Izbornik Sviatoslava* (1073), the first traceable text connected with terminology as mentions Kochan (2012, p. 9). However, it took centuries to arrive at what is called the term today. According to Ivashchenko (2018, pp. 31-32), in Ukraine, proto-terms were formed under the Slavic framework, became fixed in written artefacts and chronicles, which led to the formation of terminology in various fields of knowledge and the research style under the logical and philosophical substantiation of term theory in the eighteenth century. Further, what the late nineteenth century brought to the terminology as a field of science in Ukraine could also be traced globally (Sonneveld and Loening, 1993, pp. 1-5), i.e. the start of naming principles in the area of natural sciences, chemistry, medicine, mathematics. Furthermore, it was industrialization in Ukraine and other countries in the world as the first reason for term creation, which resulted in the standardization of technical and scientific terminology. Next, the scholars reasonably quote the definition of ISO-1087, under which terminology is a

set of terms that represent the system of concepts of a particular subject field.

## Word vs Term

The classical definitions of the term are found in various dictionaries and works. The word *term* dates back to medieval times and comes from Latin *terminus* and Greek *τέρμα* ‘border, boundary, end’. In *Merriam-Webster Dictionary*, the term is defined as a word or expression that has a precise meaning in some uses or is peculiar to a science, art, profession, or subject. In contrast, the *Cambridge Dictionary* in the definition of the term focuses on the register rather than precision of concept, i.e. a word or expression used concerning a particular subject, often to describe something official or technical (online resource). The *Philosophical Encyclopedic Dictionary* defines a term as a word or phrase to convey a concept attributable to it in a specific field of knowledge in a way as accurate as possible in its definition (Ishmuratov, 2002, pp. 636-742).

Terminology as a set of terms in a particular subject field makes part of standard language, or literary language concerning Slavic languages, according to most scholars (Akhmanova, 1966; Golovin, 1981; Panko, Kochan, & Masiuk, 1994). However, Danilenko (1986) notes that terminology belongs to scholarly language that is an independent functional variety of standard scholarly language. The deeper researchers go into the investigation, the more differences and discrepancies in definitions arise. Similarly, the definition of the *term* as a linguistic unit varies from one school to another among scholars and researchers. Even though the term has been studied for over a century and a half, no single definition is adopted<sup>3</sup>. To avoid repetition and re-citing

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<sup>3</sup> Briefly, according to Khan (2016, p. 697), “the main difference between a term and a word is the nature of reference”. The author underlines (ibid.) that the term “involves linguistic (lexical, syntactical and semantic) as well as concepts (generic, portative and casual) restrictions” and provides a summary of works on terms/term definitions by Pearson (1998) quoting Rondeau, comparing Rondeau and Wuster, referring to Sager’s

the definitions of the term from scholarly publications, the studies regard the term in its historical evolution (Zhytin, 2009; Vakulenko, 2014; Khan, 2016), classifications of terms by their origin, motivation and definition degrees (Grin-jov, 1993, pp. 48-52), by functional style limitation (Komarova, 1991, p. 21), by the differentiation between a term and professionalism (Shelov, 1984), etc.

To meet Objective 1 and draw a distinct line for the above in the classical understandings of term, it is found reasonable to cite Vakulenko (2014) in two instances below. One of them is seen to underpin the broader definition of the widely accepted definition of the term in the traditional linguistics (Eastern European perspective):

- “A term (from the Greek τέρμα ‘end, boundary’) is a unit of the lexical level (a word or a collocation) that denominates some concept of the respective domain of human endeavour and forms.”
- “Functional thematic class of the field vocabulary is a natural (systemic or off-systemic) element of the terminology fund”.

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definition of term as opposed to word; definitions of the term by Hoffman, Herbert, Godman and Payne, Trimble and Trimble, and Yang (pp. 697-698). Somewhat more profound analysis by Vakulenko (2014) illustrates the historical evolution of the term, enlists a good number of its definitions diachronically and enriches the research with an overview of basic approaches to terminology and methods of terminology, differentiating inter alia the statistical method and the analytical method. Zhytin (2009, p. 9) distinguishes terms from non-terms (words) based on the functional approach. Further, the scholar mentions two directions for the linguistic definition of the term, i.e. one introduced as a terminology tradition by Lotte (1961) opposing word and term under natural semantic non-similarity, and the other by Vinokur (1939). The latter is followed by many distinguished scholars today, and Zhytin (2009, p. 10) quotes Djakov et al. that “terms are not special words, terms are words that perform special role (function)”. Vakulenko (2014) argues the qualification “special”, which “is not quite correct, because the terms are normally classified as belonging to the groups of the common ones (distance, light, section, speed, star, water), general (analysis, analogy, category, synthesis), cross-disciplinary (electricity, osmosis, proton, weight), field terms (bosons, gluons, quarks), etc.”

The other refers to the current dilemma for terminologists and terminographers as to the definition of the term in contemporary linguistics:

There are many generic concepts through which a term is defined: verbal complex; particular object, specific concept, language sign, word, particular word, verbal complex motivated sign, lexicalized combination, reduction, function, terminological element, the integrity of sign and concept, lexical unit (Tabanakova, 2001, p. 28). Despite this, none of the current definitions can fully satisfy the scientists that tend to invent their own ones (Kochan, 2012, p. 30). Moreover, such a high number of grasps and definitions of the concept of a term confirms an impossibility to create its universal definition (Tabanakova, 2001, p. 28). However, this does not mean that striving towards the most successful definition of a term is without interest.

As evidenced above, so far, attempts by scholars to come to an agreement and consider the universal definition of the term have not been successful. It is not argued what the term and definitions of the term should be in contemporary linguistics. It is suggested that given many issues arising with the classical understanding of the term, the focus is laid internally, thus, hardly following the comprehensive growth and development of LSP, or terminologies, as a system within another system. However, LSP, as an organic body, is influenced by changes in the outward surroundings – linguistic, digital, etc., and influences the system itself by absorbing, processing, modifying, amending the elements at various hierarchical levels, resulting in the evolutionary stance of transformations “single element – compound /complex element – sub-system – system” in the long run. The mentioned transformations may help immensely digitize vast canvases of data in their poly-lingual usage within the same specialised knowledge domain. Broadly, term coinage in LSPs in the light of set term clusters, or term clichés, repetition of the form, frequency of usage may well lead to the required analysis and future design of algorithms, which connect

formal logic, mathematics, linguistics, and computer sciences.

#### Monomials as Mono-terms, Bi-terms, and Multi-terms

Given the specified above, it should be stated that it is English terminology that falls under the prime focus of investigation in the majority of cases. “Importantly, language for specific purposes in relation to the languages other than English is very little discussed except in the academic fields, and hardly found in professional non-English journals”, according to Chaika (2018, p. 125). To bridge the gap, illustrations to accompany the theoretical explanations will pair two languages – English as a lingua franca and a language of academia and Ukrainian as representative of the Slavic group of languages and deemed as an ‘understudied’ language for its geography, historical, political and economic constraints, in particular. Following the ‘understudied’ mention, it is also the terminology of audit and accounting, which lacks numerous addresses in such languages as Ukrainian, Polish, Portuguese, Armenian, etc. LSPs, or languages for finance, business, economics, IT and law, have turned more popular in recent decades. Therefore, the research sample is English for Audit and Accounting (English for A&A) and Ukrainian for Audit and Accounting (Ukrainian for A&A).

The recently appearing trend in term studies links to some publications by Ukrainian scholars. Thus, Chaika (2019a) compares terms in linguistics and terms in algebra by substantiating that “algebra and its expressions are seen as the language of mathematics, and are used to describe relationships between elements and structures, even people, thoughts, behavioural patterns” (p. 101). It is believed that terminology and its entries can be treated in the like way. It is agreed that terms (labels) represent concepts and structures and are characterized by their “behavioural patterns”. Further, algebraic expressions consist

of terms. Inasmuch as a term in algebra is either a single number or variable or numbers and variables multiplied, these are referred to as monomials in algebra. In an expression, terms may be separated by a ‘+’ or ‘-’, sometimes divided. Such terms in algebra are called binomials, a variety of polynomials.

Similarly, in terminologies /LSPs, it is assumed that a term is also expressed by either a single number or variable(s) since it is a one-word, two-word or multi-word phrase. It is suggested that such terms in the professional domain of knowledge be referred to as monomials. For example, four groups of the monomials are distinguished in English for Law given their structure, (i) the simple monomial, (ii) the simplified monomial that consists of two terms, (iii) the compound monomial that contains three terms in its structure, and (iv) the multi-term monomial that reflects a syntactical pattern (Chaika & Zakatei, 2019, p. 120). It is stated that “the parallel is drawn between the systematic relations in an algebraic expression and those in a terminological set expression in the English legal terminology. The focus is with the relations/difference between monomial variables, which determine the key concept of the term itself” (Chaika & Zakatei, 2019, p. 120). This focus is seen as crucial for the research when addressing the introduction of “monomial” and “polynomial” for set term clusters in LSPs, which are viewed as an inseparable whole, logically, semantically, and grammatically connected.

The findings of the present research are based on the analysis of 261 glossary terms selected from the *Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements* (Volume I), referred to as the Standards. For the statistical purposes and frequency usage of monomials and polynomials in English and Ukrainian for A&A, currently, no other source was considered for analysis. To illustrate the declared, it is advisable to look at Figure 1 - *monomials and polynomials in English and Ukrainian for A&A*.



Figure 1. Monomials and Polynomials in English and Ukrainian for A&A

The chart provides a clear understanding that monomials in English and Ukrainian for A&A (the Standards) amount to 251 of 261 in total, making 96% of A&A terminology in the languages under study. The other 4% remains with ten polynomials in both the English and Ukrainian languages.

Figure 2. *Monomials and polynomials in English and Ukrainian for A&A, by monomial structure*, illustrates the total of 261 monomials and polynomials in both the languages and fixes the

difference in the structure of the English and Ukrainian monomials. Thus, English for A&A in terminology includes 55 mono-term monomials, 115 bi-term, and 81 multi-term monomials, which make up 21%, 44%, and 31% of the English glossary. Ukrainian for A&A contains 39 mono-term monomials, 120 bi-terms and 92 multi-terms, respectively. In percentage, these make 15%, 46% and 35% altogether in the monomial group of the Standards glossary.

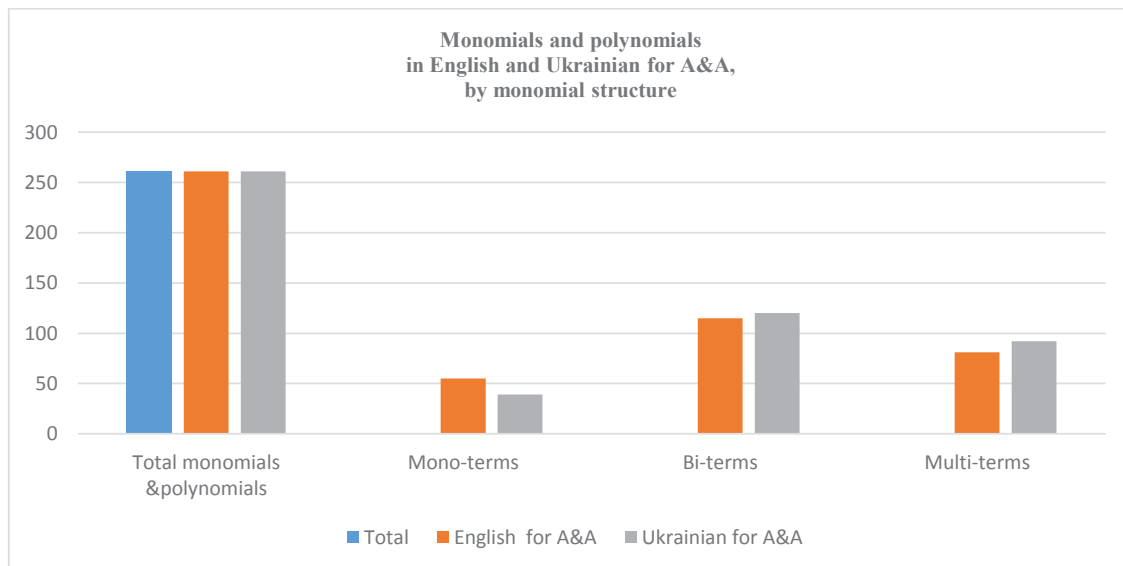


Figure 2. Monomials and Polynomials in English and Ukrainian for A&A, by Monomial Structure

It should be noted that multi-term monomials in English and Ukrainian for A&A can be represented by three-term and four-term monomials, etc. As mentioned above, English for A&A in the Standards glossary includes 81 multi-term

monomials that make 31% of the total. Next, such multi-term monomials break into 60 three-term monomials, 17 four-term monomials and four five-term and more, respectively. Ukrainian for A&A enumerates 92 multi-term monomials,

among which three-termed make 51, four-termed amount to 33, and five- and six-termed come to 8 only.

Overall, the trend in monomial coinage and use looks similar in English and Ukrainian for A&A in connection with bi-term and three-term monomials, 115 vs 120 and 60 vs 51 as compared. However, the Ukrainian four-term monomials exceed the English four-terms almost twice, i.e. 33 vs 17. Exactly doubled the Ukrainian five- and six-terms (8 in number) are ahead of 4 in English for A&A. Nevertheless, the prevailing trend in English of 55 mono-terms leaves behind the 39 Ukrainian.

Chaika (2019a, p. 104) defines a monomial as “a monomial terminological set expression in English for Audit (a monomial in audit terminology, or a monomial term, or a monomial)” that “means only one term, which can be extended with a modifier/modifiers or unextended”. No matter how many terms make such a monomial in English / Ukrainian for A&A, the monomial is one. Under a circumstance, a monomial consists of a single term only. It is a mono-term monomial. Please see the English and Ukrainian examples of mono-term monomials in *Table 1*.

Table 1.

Mono-Term English and Ukrainian Monomials

<i>LSP</i>	<i>Mono-term monomial</i>	<i>Concept</i>
English for A&A	expertise	‘skills, knowledge and experience in a particular field’ (the Standards)
Ukrainian for A&A	спеціальні знання (specialni znannja)	

Where a monomial has two terms in its structure, it is a bi-term monomial. Prepositions, conjunctions, particles and articles are service elements and make no term. The mentioned categories in the structure of the monomial (polynomial) are relevant, however. Such elements, in the structure, help understand the hierarchy in syntactic relations of the terms within a monomial (polynomial). For example, English for A&A *misstatement of fact* ‘other infor-

mation that is unrelated to matters appearing in the subject matter information or the assurance report that is incorrectly stated or presented’ correlates to Ukrainian for A&A *викривлення факту* (*vykryvlennja faktu*). In both languages, the monomials are bi-term. Please see another example of English and Ukrainian bi-terms in *Table 2. Bi-term English and Ukrainian monomials*.

Table 2.

Bi-Term English and Ukrainian Monomials

<i>LSP</i>	<i>Bi-term monomial</i>	<i>Concept</i>
English for A&A	applicable criteria	‘the criteria used by the entity to quantify and report its emissions in the GHG statement’ (the Standards)
Ukrainian for A&A	застосовні критерії (zastosovni kryteriji)	

Where a monomial contains three or four terms in its structure, sometimes more in regards to the language, it is a multi-term monomial (please see *Table 3. Multi-term English and Ukrainian monomials*). Regardless of the language,

prepositions, conjunctions, particles, and articles are service elements and make no term. Such elements in the structure of the English multi-term monomials help understand the hierarchy in syntactic relations<sup>1</sup>.



Table 3.

## Multi-Term English and Ukrainian Monomials

<i>LSP</i>	<i>Multi-term monomial</i>	<i>Concept</i>
English for A&A	date of the auditor's report	'the date the auditor dates the report on the financial statements in accordance with ISA700 (Revised)' (the Standards)
Ukrainian for A&A	дата звіту аудитора (data zvitu audytora)	

To be more specific, it is often relevant to mention the number of terms in a bi-term and/or multi-term monomial structure, especially for contrastive terminology. It is not only the issue of equivalence. It is believed it will contribute to translation studies, the questions of adequate and

equivalent translations under various contexts, in particular, and to the development of translation software as well. Please see *Table 4.* below and follow the differences in structure between the English and Ukrainian multi-term monomials in A&A.

Table 4.

## Difference in the Structure / Number of English and Ukrainian Monomials

<i>LSP</i>	<i>Multi-term monomial</i>	<i>Concept</i>
English for A&A (a)	Management's expert	'an individual or organization possessing expertise in a field other than accounting or auditing, whose work in that field is used by the entity to assist the entity in preparing the financial statements' (the Standards)
Ukrainian for A&A (a)	експерт управлінського персоналу (ekspert upravlins'koho personalu)	
English for A&A (b)	limited assurance engagement	'an assurance engagement in which the practitioner reduces engagement risk to a level that is acceptable in the circumstances of the engagement but where that risk is greater than for a reasonable assurance engagement as the basis for expressing a conclusion in a form that conveys whether, based on the procedures performed and evidence obtained, a matter(s) has come to the practitioner's attention to cause the practitioner to believe the subject matter information is materially misstated' (the Standards)
Ukrainian for A&A (b)	завдання з надання обмеженої впевненості (zavdannja z nadannja obmezhenoji vpevnenosti)	
English for A&A (c)	agreed-upon procedures engagement	'an engagement in which an auditor is engaged to carry out those procedures of an audit nature to which the auditor and the entity and any appropriate third parties have agreed and to report on factual findings' (the Standards)
Ukrainian for A&A (c)	завдання з виконання узгоджених процедур (zavdannja z vykonannja uzgodzenykh procedur)	

<sup>1</sup> This phenomenon is important; however, it falls

out of the research scope for the presented article.

As demonstrated with the examples in *Table 4. Difference in the structure/number of English and Ukrainian monomials*, it is regular enough when a monomial in one language is bi-term or three-term, etc., and its equivalent in the other features the other number of terms in the structure but remaining an equivalent monomial. The content plane remains unchanged, as the concept is the same. For instance, the English bi-term monomial *Management's expert* corresponds to the Ukrainian three-term *експерт управлінського персоналу* (*ekspert upravlins'koho personalu*), sharing the same concept.

There is a good number of similar cases, which can be the subject matter of other research findings.

#### Polynomials as Irreversibly Set Terms

In terminologies or LSPs, the other instances of complex terms – terms of complex structure or specific arrangement because of the strictly set word order, are fewer in number by statistics than simple, compound, complex terms called monomials in our case. Nevertheless, they are not of less importance and, on the contrary, such term clusters / set expressions, term collocations, [terminological] word combinations and so on make pairs/groups of terms used together in the strictly set order. In some works, such pairs are treated as an idiomatic expression or collocation, especially if they do not represent part of terminology but belong to natural language corpora. For instance, please see some set expressions or collocations of the latter: *dos and don'ts*, *here and there*, *day and night*, *boys and girls* but *ladies and gentlemen*, etc. in English, *день і ніч* (*den' i nič*), *тут і зараз* (*tut i zaraz*), *пані та панове* (*pani ta panove*), etc. in Ukrainian, respectively.

The idea of investigating linguistic units that are strictly set is not new in itself. Such linguistic phenomenon is known as studied under different

names, e.g. binomial pair, binomial expression, irreversible binomial, (binomial) freeze, frozen/unfrozen binomial, nonreversible word pair, Siamese twins in linguistics, etc. Bunin, Benor, & Levy (2006, pp. 233-236) speak of binomial formation as “the process by which a language user determines the ordering of like-category conjoined items in a three-word phrase of form A and B (e.g. chicken and egg)” and all such binomial formations as binomials.

Looking back into history, it was 1954 when Yakov Malkiel introduced the term “irreversible binomial” by which the author means “the sequence of two words pertaining to the same form-class, placed on an identical level of the syntactic hierarchy, and ordinarily connected by some kind of lexical link” (Malkiel, 1968, p. 113). Gowers (1965), in the second edition of *Fowler's Modern English Usage*, used the term “Siamese twins” to refer to conjoined twins in linguistics.

In modern studies, Chaika (2014) also refers to such conjoined terms as Siamese twins in the law of obligation in English and Portuguese. Next, the 2015 edition of *Fowler's Modern English Usage* uses the term “irreversible binomials”, as the term “Siamese twins” was considered offensive to some. Later, Chaika (2019b, p. 71) suggests that in LSPs, such term clusters in the fixed word order make “a binomial terminological set expression, or a binomial in [audit] terminology, or a binomial”. The author determines it as “a kind of a polynomial in English for Audit, which consists of a sum of at least two terms – whether or not extended with a variable/s, and linked with AND/OR” and underlines the critical point that “the word order of such coined audit term clusters – binomials in English for Audit, is irreversible” (Chaika, 2019b). At the same time, Chaika and Zakatei (2019, p. 116) do not specifically analyze polynomials and binomials, in particular. However, in English for Law, among the examples of monomials, they give an example of a legal binomial and mention that “it is possible

to distinguish (such) terms relevant to the legal domain...: EN *under hand and seal*, EN *a legatory*, EN *an earliest release date*'.

Under the present research, polynomials in terminologies, or LSPs, stand for term clusters set in the fixed word order, which cannot be reversed in professional contexts. Moreover, such polynomials are known as binomials, trinomials, etc., as determined by their structure. It is em-

phasized in the findings if two parts of the complex term structure link with *and/or*, such are referred to as binomials, according to the polynomial taxonomy. For example, in English and Ukrainian for A&A, such binomials are similar to the examples set forth in Table 5. *Binomials as a representative class of polynomials in English and Ukrainian for A&A*.

Table 5.

Binomials as a Representative Class of Polynomials in English and Ukrainian for A&amp;A

<i>LSP</i>	<i>Binomial</i>	<i>Concept</i>
English for A&A (a)	assurance skills <b>and</b> techniques	‘those planning, evidence gathering, evidence evaluation, communication and reporting skills and techniques demonstrated by an assurance practitioner that are distinct from expertise in the underlying subject matter of any particular assurance engagement or its measurement or evaluation’ (the Standards)
Ukrainian for A&A (a)	навички <b>та</b> методи надання впевненості (navyčky ta metody nadannja vpevnenosti)	
English for A&A (b)	cap <b>and</b> trade	‘a system that sets overall emissions limits allocates emissions allowances to participants and allows them to trade allowances and emission credits with each other’ (the Standards)
Ukrainian for A&A (b)	обмеження викидів <b>та</b> торгівля (obmezhennja vykydiv ta torhivlja)	

In mathematics, an algebraic expression of  $ab + ac$  can transform into  $a(b + c)$ . In terminologies, or English for A&A, in particular, the picture looks similar: *assurance skills* + (and) *assurance techniques*, which equals *assurance (skills + techniques)*, respectively. At first sight, an easier example is *cap and trade* as it is a binomial, i.e. two terms make such a polynomial. With a deeper look inside, it is relevant to follow the fixed word order in the structure of such a binomial: *cap and trade*, and never *\*trade and cap*. The same observance refers to the structure of the former binomial *assurance skills and techniques*, which may not be reversed into *\*assurance techniques and skills*. Besides, the number of terms in the above polynomials in English and Ukrainian for A&A differs.

What should be noted further is if, according to the polynomial taxonomy, three parts as op-

posed to two parts of the complex term structure connect with *and/or*, these are referred to as trinomials, also representing polynomials in their linguistic variety. Shortly and as investigated in English and Ukrainian for A&A, binomials/trinomials are a representative class of polynomials, and they possess some distinct properties, which make the current study more perspective:

1. Such polynomials belong to the same part of speech,
2. Such polynomials have some semantic relationship,
3. Such polynomials usually connect with the conjunction(s) *and/or/but*.

Of perspective, research is the comparative/contrastive study of the monomial and polynomial structure in two or more languages in linguistics and translation studies, following the text development or text compression regarding the

source and target languages in translation.

### Conclusion

To summarize, it is clear that all terms are words in linguistics, but it is not always that all words are terms. It is revised that terms are more formal, narrow, and accurate in their concepts because of restrictive associations and correlation, so terms represent some specifically determined concepts rather than convey meanings. It is followed terms belong to some classifications and taxonomies. No wonder that there is no unified approach adopted across the world among the academia to treat terms in their terminologies or LSPs. It is stated that what can be of value is to differentiate between the terms in linguistics and computer sciences, when focusing on the digital technology that is fast pacing ahead, and adopt some methods, techniques, approaches that all together may bring more benefits to the contemporary world in various fields of science and business.

Therefore, the research findings underpin the substitutes of the term in terminologies, or LSPs, with a monomial and polynomial as compared to an algebraic expression in mathematics. That would lead to new perspectives for the data collection, processing, analysis and description of terms in LSPs. The critical goal remains as suggested, i.e. automation of processes in future, by determining logical, semantic, grammatical, syntactical, pragmatic, etc. facets of the terms as elements of the system in an LSP as a sub-system, which can be seen as a system as well, in a narrow sense of the word.

The results as to the introduction of “monomial” and “polynomial” for LSPs, which may necessitate further study, are as follows: differentiation between mono-term and multi-term monomials, as opposed to polynomials; differentiation between binomials and trinomials as a variety of polynomials in poly-cultural and poly-lingual contexts.

More findings of the research provide for

more conclusions. Monomials in English and Ukrainian for A&A largely prevail over polynomials. It is found that the frequency of term coinage is the same in English and Ukrainian for A&A, according to the descending model: bi-term, three-term and mono-term monomials. The overall trend in monomial coinage and usage looks similar in English and Ukrainian for A&A in connection with bi-term and three-term monomials.

Digital technology for processing data, application of statistical and mathematical methods [to decision making] and simulation of higher-order thinking with the help of relevant software along with linguistic findings may become of increasing value for data mining, text recognition, analysis, retrieval, storage and transfer of data, compilation of dictionaries and concordances, as well as create future translation means of high precision and accuracy regardless of languages in poly-cultural and poly-lingual contexts. In the light of poly-culturalism and poly-lingualism, consideration of more accurate and precise definitions for the term to be adopted for terminologies may be of its material worth in study of terminology, terminography, translation and computer science.

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