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TOWARDS THE TREATMENT OF POLYSEMOUS TERMS (ON THE EXAMPLE OF TRIGGER)

Abstract

The world of terminology has experienced a significant shift over the past two decades. Traditionally, terms were seen as univocal, but this perception has changed as terms have evolved, developing polysemy, homonymy, and synonymy. This evolution has brought them closer to the structure of general-language words, blurring the lines between the two. The terminologization of general-language words, determinologization of terms, and term migration between multiple domains through metaphorization have also become widespread, adding to the complexity of the field. This dynamic landscape necessitates a reevaluation of existing terminological and terminology-adjacent lexicological theories and the development of new methodologies for terminology treatment, management, and visualization in dictionaries.

This paper introduces a novel approach to terminology meaning analysis. By synthesizing and transforming lexicological theories (Explanatory-Combinatorial Lexicology, more specifically, Semantic Bridges, and Frame-Based Terminology), as well as implementing Etymology and Definition analyses, we aim to provide a comprehensive understanding of the meanings of polysemous terms. Moreover, several digital research resources and software tools were used to analyze empirical data. Thus, our methodology offers a fresh perspective on the terminological dictionary entry.

Keywords: Terminology, Explanatory-Combinatorial Lexicology, Frame-based Terminology, Semantic Bridges, Polysemy in Terminology

1. Introduction

Language serves not only as a means of communication but also as an embodiment of a country's cultural, social, political, and economic position. It often indicates the level of industrial and technological advancements within the state (Nedobity, 1983, p. 69). However, with the emergence of new fields of knowledge, language may struggle to keep up and adapt to newly discovered or redistributed concepts (Cabré Castellví, 1995, p. 3), leading to communication issues. Therefore, to ensure clarity and understanding among the same language community, the contextual-semantic transparency of concepts is paramount. This is a pressing issue, especially in field-specific communication, where language nomination and the vagueness of meaning can be problematic.

Traditionally, terminological frameworks were not designed to account for diversity (e.g., polysemy, homonymy, synonymy, etc.), as terminology aimed at the unification, internationalization, harmonization, and standardization of univocal terms (Cabré Castellví, 1995, p. 1). The General Theory of Terminology (GTT), introduced by Eugen Wüster, is an example of such a framework. According to GTT, the

terminology is concept-based, where the concepts are assumed to be universal and not bound to culture or a specific language. Within GTT's framework, "*terminologies are deliberate*" creations, which only serve as the denominators of concepts, are monosemous, unambiguous, and do not require additional linguistic description. Therefore, traditional terminology work is prescriptive, recommending standards for using terms within specialized communication (Nedobity, 1983, p. 72; Kingscott, 1998, p. 17; Felber, 1984, p. 98).

However, the terminology theory tries to account for the diverse and dynamic reality that is constantly evolving and can be studied from various angles (Cabré Castellví, 1995, pp. 2-3). Nowadays, in terminography, linguistic processes such as terminology migration between domains, terminologization, and determinologization allow for the expansion of meaning and term formation through polysemy. Moreover, one concept can be expressed with different linguistic forms according to the discourse context (Sager, 1990, p. 58). This brings the terms closer to the structure of the general-language words, potentially blurring the distinction between the domain-specific terminology and the common language.

It is apparent that terminology no longer fits the traditional framework of GTT. This emerging deviation of terms from GTT was further highlighted by the development of corpus linguistics and text analysis tools, as well as the creation of domain-specific corpora, through which these changes could be observed in modern term formation. Moreover, instances of terminologization of general-language words, determinologization of terms, and term migration between multiple domains through metaphorization have gradually become a common practice. Therefore, the abovementioned process has manifested the urgency for developing new methodological approaches.

Recently, terminologists have started to revise and update existing terminological theories while providing their input to the subject matter. Nowadays, the most prominent theoretical divergences from GTT are 1) Frame-Based Terminology (FBT), developed by Pamela Faber at the University of Granada (2012), and 2) the introduction of lexical semantics, more specifically, the application of the Explanatory-Combinatorial Lexicology (ECL) and Frame Semantics principles in the domain of terminology, by Marie-Claude L'Homme at the University of Montreal (2020).

Nevertheless, so far the topic of utilization of Semantic Bridges (a part of ECL methodology) in the context of terminology, has not been explored yet. Therefore, this paper focuses on combining the abovementioned lexicological and terminological theories to develop a new approach to the treatment of polysemous terms in different domains.

This paper explores the use of Semantic Bridges (SB) in terminology and combines Frame-Based Terminology with Definition and Etymology analyses to develop a new approach for treating polysemous terms in specialized domains on the example of the term TRIGGER *n*.

2. Terminology and Terminology Adjacent Lexicological Theories

2.1. *Frame-Based Terminology*

Frame-based terminology (FBT) is a relatively new terminology theory that links cognitive linguistics and semantics to specialized knowledge representation and applies frames to terminology (Faber, 2011; Faber, 2012). In a nutshell, the methodology of the FBT combines theories such as the "Lexical Grammar Model" (Faber & Mairal, 1999; Martin Mingorance, 1989), "Frame Semantics" (Fillmore, 1985; Fillmore, 2006), the "Generative Lexicon" (Pustejovsky, 1995) and "Situated Cognition" (Barsalou, 2003; 2008).

A significant part of the FBT is Frame Semantics, which was introduced by Charles Fillmore (1985). According to the theory of Frame Semantics, frames are story fragments that connect words to create meaning. Moreover, understanding the meaning of the word is due to evoking the respective frame (Ruppenhofer, et al., 2016, p. 7). Evans (2007, p. 85) defines frames as "*a schematization of experience (a knowledge structure), which is represented at the conceptual level and held in long-term memory, and which relates elements and entities associated with a particular culturally embedded scene, situation or event from human experience.*"

However, within the FBT framework, frames have adapted to showcase "*the specialized knowledge units and their roles in specialized subject domains*" (Faber, 2015, pp. 14-15). FBT focuses on three main topics (Faber, 2009, p. 123): 1) the conceptual organization, 2) the multidimensional nature of terminology, and 3) the extraction of semantic and syntactic information through multilingual corpora. Additionally, FBT methodology implements "top-down" and "bottom-up" approaches. The bottom-up approach refers to the extraction of information from domain-specific corpora, while the top-down approach analyses the information provided in specialized reference works (Faber, 2009, p. 124). Within the framework of FBT, the domains are configured in a way that corresponds to the action or environment in which a term is used. Overall, FBT tries to account for all the necessary information to explain the term's meaning.

2.2. *Explanatory-Combinatorial Lexicology*

One of the terminology-adjacent theories relevant for developing a new type of terminology definition through its systematic approach to dictionary entries is Explanatory-Combinatorial Lexicology or ECL (Mel'čuk, Clas, & Polguère, 1995; Mel'čuk & et al., 1984-1999). ECL is the theoretical framework for the Explanatory Combinatorial Dictionary (ECD), which is a formalized semantically-based lexicon for thorough investigation of the word's meaning (Mel'čuk, 2006, p. 225).

2.2.1. *ECL: Semantic Bridges*

The semantic bridge is a part of ECL theory and ECD methodology, which aims to identify a word's meaning expansion and polysemy development patterns. Here, the Lexical Units (LUs) of a particular language (**L**) are grouped based on their semantic relatedness into two axes: 1) horizontally – semantic fields, and 2) vertically – vocables. Mel'čuk (2006, pp. 65-66) states that "*A semantic bridge between LUs L_1 and L_2 is a configuration 'σ[1]' of semantemes shared by the lexicographic definitions of L_1 and L_2 such that it satisfies simultaneously the following two conditions: 1) 'σ' is sufficiently important in these definitions; 2) 'σ' occupies a sufficiently central position in these definitions.*"

In other words, the concept of "semantic bridges" refers to the underlying cognitive mechanisms of sense development that link different polysemous meanings of a word to one another. Semantic bridges reveal the logic behind the sense transfer of polysemous words. The semantic bridge can arise directly from the word's primary meaning or indirectly by forming a cascade of meaning transfers. Overall, "semantic bridges" help us better understand the polysemous nature of words and how their meanings are related (Mel'čuk, 2013, p. 325).

2.2.2. *ECL: Collocations*

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[1] 'σ' within ECL theory represents a semantic bridge between L and L′, where L is a phraseology, and L′ is a phraseme.

According to the ECL, the collocation is a binary set phrase (phraseme), or semi-phraseme, as "one of the collocation's constituents is selected by the speaker freely […] while the other is chosen as a function of the first". Mel'čuk sets three conditions that a phraseme $\mathbf{AB} = <\text{' S'}; /A/ \oplus /B/; \Sigma_{\mathbf{AB}} >$ of $\mathbf{L}$ must follow for it to be a collocation (Mel'čuk, 2006, p. 56): "1) The signified of $\mathbf{AB}$ includes the signified of $\mathbf{A}$ as its **semantic pivot**: 'A' is the argument of the difference 'AB' − 'A' = 'C.' [Formally: 'S' = 'A' $\oplus$ 'C' & 'C'('A').]; 2) $\mathbf{A}$ is selected by the speaker freely, i.e., independently of $\mathbf{B}$—for its own signified 'A'; 3) $\mathbf{B}$ is not selected freely—it is selected for its signified 'C' restrictedly, i.e., as a function of $\mathbf{A}$."

Specifically, $\mathbf{A}$ is the collocation's base, which the speaker selects according to its meaning. $\mathbf{B}$ is a collocate, which is used more restrictedly but cannot be replaced with its synonym. It should be noted that the collocate $\mathbf{B}$ in the dictionary of $\mathbf{L}$ has the unique meaning of 'C' ('B'='C').

2.3. Blending the Theories

The ECL and FBT theories are blended within our research framework to ensure an extensive term analysis. FBT provides the framework for visualization and presentation of the domain-specific vocabulary, while ECL facilitates the semantic analysis of the term. However, two points are worth mentioning:

1) This is not the first time ECL methodology has been implemented in terminology. Marie-Claude L'Homme (2020) also suggested applying the ECL and ECD principles to terminological definitions. Nonetheless, the topic of using Semantic Bridge Analysis (SBA) in the context of terminology, more specifically in polysemous terms, has not caught the attention of other researchers. Since we are interested in the polysemy in terminology and the treatment of polysemous terms used in different domains, we believe that the exact part of ECL, which deals with semantic bridges, would be an interesting platform for describing polysemous terms;

2) The International Standard Classification of Education (ISCED) was implemented to improve and control domain perception throughout our research. Through this change, we were able to ensure the relevancy of the domains in the Georgian reality. The logic behind this change was that if ISCED accounts for all the domains taught within the state, it gives us a rough idea of which domains are relevant to the Georgian reality.

3. Data and Methodology

3.1. Instruments

The introduction of new fields of expertise as well as the new terminology have exacerbated the need for creating or sourcing the necessary methodology and Natural Language Processing (NLP) tools for terminology work. There are numerous NLP tools on the market for languages such as English, German, and French. However, regarding low-resourced languages like Georgian, finding software tools capable of recognizing the provided Georgian script or implementing optical character recognition sometimes poses a challenge.

3.1.1. SynchroTerm

SynchroTerm (Terminotix, 2019) is a bilingual term extraction software, compatible with more than 30 languages (Georgian included). SynchroTerm allows users to extract source terms, equivalents, and contexts

from bilingual text files. Moreover, users can adjust tagging and extraction settings (minimum and maximum number of words per term, number of examples, number of occurrences, substantive-only extraction option, etc.) and generate terminological databases for further usage.

3.1.2. Voyant Tools

Voyant Tools is a web-based reading and analysis environment for digital texts (Sinclair & Rockwell, 2024). According to the Voyant Tools guidebook[2], it is an open-source project and can be used in the following ways: 1) to learn how computer-assisted analysis works; 2) to study any text (from online sources, from one's files, etc.); 3) to add functionality to different types of written media, to go through the text with analytical tools; 4) to add interactive evidence to the research; 5) to develop new tools.

3.1.3. KH Coder

KH Coder (Higuchi, 2016; Higuchi, 2017) is a free-to-use computer software package used in computational linguistics for quantitative content analysis or text mining. KH Coder possesses a built-in Stanford POS Tagger for word extraction, R for statistical analysis, and MySQL for organizing and retrieving the data. Moreover, the software presents the function of removing words irrelevant to the scope of content analysis or word frequency list generation (i.e. stop words).

3.1.3. #LancsBox and #LancsBox X

#LancsBox (Brezina, Weill-Tessier, & McEnery, 2020) and #LancsBox X (Brezina & Platt, 2023) are software tools designed for corpus analysis. Both tools allow users to interact with their data or existing corpora. Software packages provide part-of-speech tagging, language data visualization, and advanced search functions.

3.2. Methodology

The following research stages are based on digital resources and software, which add to the novelty of the methodology. Corpus-based research was conducted in two parts to create the terminology profile. Firstly, highly polysemous and multidomain terms and terminological collocations were identified within the domain-specific corpora. Secondly, the collected data was analyzed according to the revised methodology. The term identification process
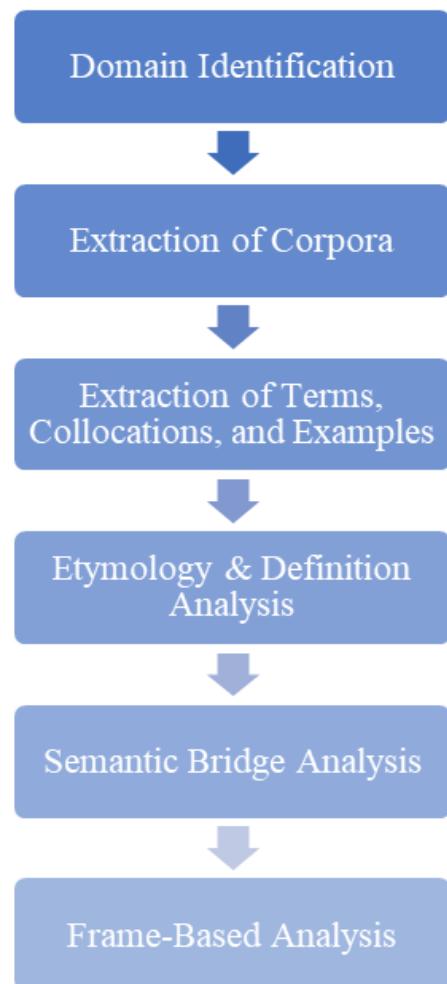

Figure 1 Research Process

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was divided into several stages:

Four specialized domains, namely Medicine, Politics, Finances, and Law, were selected and extracted from the English-Georgian Parallel Corpus (EGPC, 2014). The terminological data from the corpus was converted into individual TXT files in both languages to remove any XML annotations.

SynchroTerm (Terminotix, 2019), a bilingual terminology extraction software was used to extract terms and illustrative examples in both languages (English and Georgian) and to create a terminological database. The extracted data was later uploaded to Voyant-Tools (Sinclair & Rockwell, 2024) for more accurate empirical information.

Subsequently, the corpora were divided by languages (English and Georgian), filtered for functional words (i.e. Stop Words), and uploaded to the qualitative software analysis tool - KH Coder[3] (Higuchi, 2016; 2017). Terminological lists in both languages were extracted from the KH Coder, considering different criteria, such as the existence of duplicates.

The extracted terminological lists were divided into unique terms and duplicates, where unique terms were used solely in one corpus, while duplicates were used in two, three, or four corpora. Terms in the duplicate category were selected for further analysis.

Terms in the duplicate three and duplicate four categories were analyzed in corpora using software tools such as #LancsBox[4] (Brezina, Weill-Tessier, & McEnery, 2020) and #LancsBox X[5] (Brezina & Platt, 2023) to differentiate polysemous and monosemous terms through context analysis. The initial research stage yielded 500 terms and term candidates with their contexts and frequency data extracted from the corpus. After further filtering, the final 50 terms were selected, which were present in each domain.

	Lemma	Token	Type
Medicine	12,969	281,737	14,752
Politics	19,535	511,073	22,498
Finance	14,424	831,224	16,306
Law	17,576	739,974	20,303

Table 1 Empirical Data of the English Corpora[6]

The following research stage aimed to define polysemous and multidomain terms by implementing various resources such as lexicographical references, corpora, and databases. The following dictionaries were mainly used for etymological and definition analysis of the terms: 1) The Oxford English Dictionary[7] (OED), and 2) Etymonline[8] – Online Etymology Dictionary. Multiple lexical and terminological databases, such as WordNet[9], FrameNet[10], and IATE[11] (Interactive Terminology for Europe), were consulted to ensure a comprehensive analysis.

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[3] The data was transliterated from Georgian to Latin script in the Georgian language corpus since the application did not recognize the Georgian font.

[4] #LancsBox #LancsBox: Lancaster University corpus toolbox

[5] #LancsBox X #LancsBox X

[6] It should be noted that even though English-Georgian parallel texts were analyzed, the empirical data of the Georgian corpus was not accurate; therefore, only the data from the English part of the corpus was provided.

[7] The Oxford English Dictionary Oxford English Dictionary (oed.com)

[8] Etymonline Etymonline - Online Etymology Dictionary

[9] WordNet WordNet Search - 3.1 (princeton.edu)

[10] FrameNet Welcome to FrameNet! | fndrupal (berkeley.edu)

To identify semantic bridges of selected terms, an additional framework was set up:

1. After the final 50 terms were extracted, each term and its context were double-checked in the corpora to ascertain the term's polysemous and multidomain characteristics. For this purpose, the corpus analysis tools #LancsBox and #LancsBox X were used. Furthermore, collocates, collocations, and composites of the terms were identified through these software tools.

2. Following the corpus analysis, the terms were looked up in Etymonline to identify their primary meaning and usage.

3. The next part of the research involved extensive definition analysis using online dictionaries, such as the OED, OneLook, etc. Furthermore, terms and terminological collocations were looked up in IATE, WordNet, and FrameNet to check for additional polysemous meanings of the term.

4. Because base corpora were limited to EGPC data, other corpora (e.g., SketchEngine, SKELL, etc.) were used to explore additional illustrative examples of the term.

5. Additionally, each domain was marked according to ISCED. For example, in ISCED guidelines, the domain of military defense is under code **1031**.

6. Symbols denoting various linguistic processes were introduced in entries.

4. Term Analysis: TRIGGER *n*

According to the etymological database of Etymonline[12] the word TRIGGER, in its current written form, was first used around the 1650s, with the meaning of "*device by means of which a catch or spring is released, and a mechanism is set in action.*" In 1930, TRIGGER was used as a verb with the following meaning: "*cause something to happen.*" Using the OED, the follow-up definition analysis revealed a clear semantic component: "*a movable catch or lever the pulling or pressing of which releases a detent or spring and sets some force or mechanism in action*."

The meaning expansion through semantic bridges becomes possible only after the semantic components are identified. We can create a specific frame of TRIGGER by analyzing the semantic component mentioned above. Namely, TRIGGER has to be **movable**; it has to release or activate something by **pulling** or **pressing** onto a movable part. Depending on the context of the specialized domain, all the constituent parts of TRIGGER can gain alternate meanings through metaphorization. For example, the part of "**activating something**" in the context of psychology and psychiatry can refer to the onset of a person's traumatic experiences when a particular *trigger* is introduced.
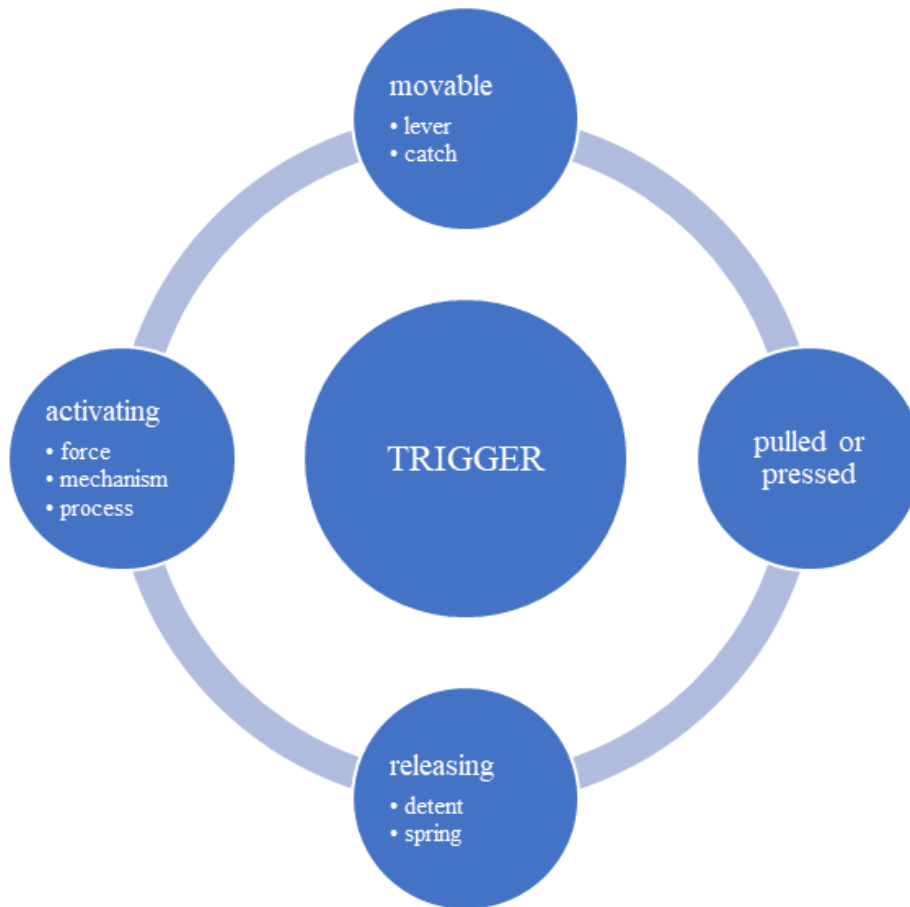

Figure 2 Characteristics of TRIGGER

4.1. TRIGGER: A Short Excerpt of Semantic Bridges and Definitions

SYMBOL	MEANING	SYMBOL	MEANING
‹ … ›	Abbreviation	≠	Antonymy
=	Synonymy within the domain	↳	Meaning migration between domains
≈	Synonymy outside the domain	‡	Terminologization
⊃	Broader meaning*	‡	Determinologization
⊂	Narrower meaning*	⊕	Operation of linguistic union*
L	A particular language*	L	A particular lexical unit*
LU	Lexical unit*	_L$_1$ … L$_2$_	The idiom L$_1$ … L$_2$*

Figure 3 Symbols used in definitions. (Symbols marked by '' are part of ECL/ECD)*

SEMANTIC BRIDGE 1: a DEVICE for *_setting sth into motion_*.

1. **Domain #1031: Military and Defense**

    1.1.   **TRIGGER** n. – a part of a firearm that, when pulled, operates internal components of the mechanism, ultimately resulting in the forward movement of the firing pin. [≠ **TRIGGERLESS**]; [= _gun **TRIGGER**_]

    1.1.1. _Hair_ **TRIGGER** n. – a trigger that operates a firearm by very slight pressure.

    1.1.1.1.   _Hair-trigger_ ‡ adj. – a person who reacts immediately to the slightest provocation.

    1.1.2. _Primary fission_ **TRIGGER** n. – a part of a **THERMONUCLEAR WARHEAD**. [= _booster-fission **PRIMARY**_]

    1.1.3. _Gun_ **TRIGGER** n. – [= _**TRIGGER**_]

    1.1.3.1.   _Trigger_ **FINGER** n. – the pointer finger of the right hand, which pulls the trigger of a firearm.

    1.1.3.2.   _Trigger-happy_ ‡ adj. – a person ready to shoot at anything at any time or on slight provocation.

    1.1.3.3.   _Trigger_ **GUARD** n. – a protective loop around the trigger of a firearm used for the prevention of accidental discharge.

    1.1.3.4.   _Trigger_ **LOCK** n. – a device that is locked with a key to prevent a user from pulling the trigger of the firearm. [= _gun **LOCK**_]; [↪Transfer to **#0716**]

    1.1.3.5.   _Trigger_ **BLOCK** n. – a mechanism in a steam engine that automatically closes the steam valve when a certain speed is reached. [= _trigger **GUARD**_]

    1.1.3.5.1.   **Domain #0715: Mechanics and Metal Trades**

    1.1.3.5.1.1. _Trigger_ **STOP** n. – a stop placed on a die to control the feed of the automatically released strip.

    1.1.3.5.2.   **Domain #0716: Motor Vehicles, Ships and Aircraft**

    1.1.3.5.2.1. [↪Transfer from **#1031**] _Trigger_ **LOCK** n. – a latching device with a trigger-like lever used to secure doors. [= _trigger **LATCH**_]

    1.1.3.5.2.2. _Trigger_ **LATCH** n. – [= _Trigger **LOCK**_]

    1.1.4. _Time_ **TRIGGER** n. – an electronic function of a device that causes something to activate automatically. [Transfer to **#0511**]

SEMANTIC BRIDGE 2 (from 1.1. n. TRIGGER): _as if_ sth was/were a DEVICE for *_setting sth into motion_*.

2. **Domain #0522: Natural Environment and Wildlife**

2.1. *Trigger*-**FISH** n. – a brightly colored fish from the Balistidae family, capable of erecting the first two dorsal spines for self-defense.

2.2. *Trigger*-**PLANT** n. – a plant that is pollinated through its 'trigger' that is snapped in response to a slight touch. [= *STYLIDIUM*]

2.3. *Trigger*-**HAIR** n. – a hair-like filament within a nematocyst that releases stinging hair upon touch.

3. **Domain #0912: Medicine**

3.1. *Trigger* **POINT** n. – ‹TrP› a hyperirritable spot of the skeletal muscles' fascia[13]. [= *Trigger AREA*; ↳ Transfer to: **#4012**]

3.1.1. *Primary trigger* **POINT** n. – [= *Central Trigger* **POINT**]

3.1.2. *Secondary trigger* **POINT** n. – [= *Satellite Trigger* **POINT**]

3.1.3. *Active trigger* **POINT** n. – [≠ *Latent trigger* **POINT**; ≠ *Inactive Trigger* **POINT**]

3.1.4. *Latent trigger* **POINT** n. – [= *Inactive Trigger* **POINT**; ≠ *Active Trigger* **POINT**]

4. **Domain #0511: Biology**

4.1. *Trigger* **AREA** n. – a sensitive part of the body, after irritation of which it affects another area. [= *Trigger POINT*]

4.2. [↳Transfer from **#1031**] *time* **TRIGGER** n.

SEMANTIC BRIDGE 2 (from 1.1.3. n. *Gun* TRIGGER): *acting as* a **DEVICE** for *setting / bringing sth into motion*, *subsequently causing* another event as a chain reaction.

5. **Domain #1031: Military and Defense**

5.1. *to trigger a gun* v. – to shoot a gun.

SEMANTIC BRIDGE 3 (from 5.1. v. to trigger a gun): *the subsequent reaction* to being *set/brought into motion by* a **DEVICE**.

6. **Domain #0313: Psychology**

6.1. *Trigger* **EVENT** n. – an event that happens around us, resulting in us having a particular emotional reaction or behavior as a response.

6.2. *Trigger* **ZONE** n. – a low-threshold region for causing a response.

6.3. *to trigger a reaction* v. – acting as a stimulus that causes a reaction.

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[13] 'Trigger Points' - Trigger Points - Physiopedia (physio-pedia.com)

6.3.1.Domain #0619: Information and Communication Technologies (ICTs) & Domain #0313: Psychology

6.3.1.1.   *Trigger* **WARNING** n. – a signal of potential distress in future communication or content.

7. **Domain #052: Environment**

7.1. *Trigger* **VALUE** n. – the concentrations of substances below which the risk of adverse biological effects is low.

8. **Domain #0412: Finance, banking, and insurance**

8.1. *Trigger* **PRICE** n. – a minimum selling price level that indicates the need for import control.

8.2. [↳Transfer from **#0912**] *Trigger* **POINT** n. – imposing price controls at a certain price level.

9. **Domain #0714: Electronics and Automation & Domain #0719.1.4: Electrical and Electronic Engineering**

9.1. *Trigger* **CIRCUIT** n. – a circuit behaving like a trigger tube.

9.2. *Trigger* **PULSE** n. – a pulse acting as a trigger. [= *Tripping PULSE*]

9.3. Time **TRIGGER** n. – [↳Transfer to **#0511**]

4.2. TRIGGER: Derivation

Semantic derivations are formed from the term TRIGGER (TRIGGERING *adj*, TRIGGERED *adj*, TRIGGERLESS *adj*), namely:

The psychology and psychiatry term TRIGGERING *adj* is derived from TRIGGER *v*, creating the following connection 'TRIGGERING' ⊃ 'TRIGGER *v*.' Here the term TRIGGERING *adj* has the meaning of "the situation, action or a living being (human or animal), who/which TRIGGERS negative emotions (fear, anger, rage, etc.) in another living being (human or animal)."

The psychology and psychiatry term TRIGGERED *adj* is derived from TRIGGER *v*, creating the following connection 'TRIGGERED' ⊃ 'TRIGGER *v*.' Here the term TRIGGERED *adj* has the meaning of "the re-experience of past negative emotions (fear, anger, rage, etc.) by a living being (human or animal), TRIGGERED by a situation, an action or another living being (human or animal)."

The military term TRIGGERLESS *adj* is derived from TRIGGER *n*, creating the following connection: 'TRIGGERLESS' ⊃ 'TRIGGER *n*.' Here, TRIGGERLESS *adj* means "TRIGGERLESS weapon or equipment, which does not require pulling the lever for activation."

4.3. TRIGGER: Collocation

In the case of the term TRIGGER, the following collocations are created:

Where TRIGGER is **B** collocate and is the restricted part of the collocation: *gun* **TRIGGER**, *time* **TRIGGER**, *hair* **TRIGGER**, *Schmitt* **TRIGGER**, *primary fission* **TRIGGER**, *flow* **TRIGGER**, *pressure* **TRIGGER**.

Where TRIGGER is **A** base and is the determiner of the collocation: *trigger* **PUMP**, *trigger* **GUARD**, *trigger* **LOCK**, *trigger* ***BLOCK***, *trigger* **STOP**, *trigger* a **GUN**, *trigger* **PRICE**, *trigger* **PAYMENT**, *trigger* **CIRCUIT**, *trigger* **TIME**, *trigger* **PULSE**, *trigger* **VALUE**, *trigger* **ZONE**, *trigger* a **REACTION**, trigger **EVENT**, trigger **WARNING**, trigger **LEVER**, *trigger*-**FISH**, *trigger*-**HAIR**, *trigger*-**AREA**, *trigger* **POINT**, *primary trigger* **POINT**, *central trigger* **POINT**, *secondary trigger* **POINT**, *satellite trigger* **POINT**, *active trigger* **POINT**, *latent trigger* **POINT**, *inactive trigger* **POINT**, *defuse trigger* **POINT**, *attachment trigger* **POINT**, *ligamentous trigger* **POINT**.

Therefore, according to ECL, the term TRIGGER can be used as 1) the standalone term in **L** language, or C position term; 2) **B** collocate of the collocation, or the function determining part of the collocation; 3) **A** base of the collocation, or the determiner of the collocation.

5. Conclusions

This article introduces a new methodology for analyzing the meanings of technical terms. Our study has identified a major problem in modern terminology and domain-specific communication: polysemy. We have also found ongoing linguistic processes within the field, such as term migration between domains, terminologization of a common word, and determinologization of a term.

To counteract the ongoing processes, we have combined the Frame-Based Terminology and Explanatory-Combinatorial Lexicology theories to understand the meanings of polysemous terms better. On the one hand, FBT provides a framework where the domains are configured within the frame, showing the term's usage and all the necessary information about its meaning. ECL facilitates semantic analysis of terms using semantic bridges. Semantic bridges represent the hidden links between the polysemous meanings of a term and show the logic behind the meaning expansion.

Through implementing text analysis tools, such as SynchroTerm, Voyant Tools, KH Coder, #LancsBox, and #LancsBox X, we gathered sufficient empirical data, frequency lists, collocation lists, and illustrative examples, which further aided in the semantic bridge analysis process.

The initial stage of investigation of TRIGGER has shown that the same terms can be used in different domains with different meanings. However, the semantic component allowing semantic bridge creation remains the same. The following semantic bridges were identified during the analysis: 1) a device for setting something into motion; 2) as if something was/were a device for setting sth into motion; 3) acting as a device for setting something into motion, subsequently causing another event as a chain reaction; 4) the subsequent reaction to being set into motion by a device**.** The polysemous term TRIGGER was also accounted in several domains: 1) Military and Defense; 2) Mechanics and Metal trade; 3) Motor Vehicles, Ships, and Aircraft; 4) Natural Environment and Wildlife; 5) Medicine; 6) Biology; 7) Psychology; 8) Environment; 9) Finance, Banking, and Insurance; 10) Electronics and Automation; 11) Electrical and Electronic Engineering. The derivational forms of TRIGGER (TRIGGERING and TRIGGERED) were also identified alongside the collocations.

Overall, this study highlights the need for a revised methodology for terminology treatment, as the line between technical terms and common language vocabulary is becoming increasingly blurred. A natural progression of this work is to analyze the implementation of said theories in the framework of the online terminological dictionary model.

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