



Universidad
de La Laguna

Facultad de Humanidades
Sección de Filología

DEPARTAMENTO DE FILOLOGÍA INGLESA Y ALEMANA

A FUNCTIONAL-LEXEMATIC ANALYSIS OF *HITTING* VERBS

Grado en Estudios Ingleses

Lorena Mora Armas

Francisco José Cortés Rodríguez

2023

San Cristóbal de La Laguna

Table of contents

List of abbreviations	iii
1. Abstract	ix
2. Introduction	6
3. Theoretical framework	7
3.1. Paradigmatic axis	8
3.1.1. Semantic decomposition	11
3.2. Syntagmatic axis	11
3.2.1. Arguments	12
3.2.2. Verb class	13
3.2.3. Lexical representation of verbs	15
3.2.4. Constructions and alternations	19
4. Corpus selection	23
4.1. Verb selection	28
5. Paradigmatic analysis	30
5.1. Semantic components	31
5.2. Lexical relations	39
5.2.1. Polysemy	39
5.2.2. Synonymy and hyponymy	40
5.2.3. Hypernymy and hyponymy	41
6. Syntagmatic analysis	46
6.1. Transitivity	46

6.2. Lexical representations	47
6.3. Constructions	53
6.3.1. With-instrument construction	53
6.3.2. Against construction	54
6.3.3. Conative construction	55
6.3.4. Body-part possessor ascension construction	56
6.3.5. Together reciprocal construction (transitive)	57
6.3.6. Instrument subject construction	58
6.3.7. Unintentional Interpretation of Object	58
6.3.8. Resultative phrase	60
6.3.9. Simple Reciprocal construction (intransitive)	60
7. Conclusions	61
8. References	63
9. Appendix	66
9.1. Definitions of selected verbs	66
9.2. Constructions of selected verbs	74

List of abbreviations

CAMD	Cambridge Dictionary
COD	Collins Dictionary
LDOCE	Longman Dictionary of Contemporary English
MCD	Macmillan Dictionary
NP	Noun phrase
NP1	Noun phrase 1
NP2	Noun phrase 2
NP3	Noun phrase 3
P	Preposition
PP	Prepositional phrase
Pred'	Predicate'
XP	Any kind of phrase
V	Verb

1. Abstract

This degree final project aims to study the interaction between syntax and semantics in the verbs of hitting. Following the Functional-Lexematic Model (Faber & Mairal, 1999), this paper is divided into two approaches; the first examination is centred on a paradigmatic analysis, while the second concerns a syntagmatic analysis.

For this paper, I examined previously proposed classifications of hitting verbs collected from various lexical databases of English and the work of Levin (1993). Due to the irregularities regarded between the sources, this study proposes a new classification for hitting verbs, regarding their syntactic and semantic characteristics. Then, the selected verbs were analysed through a paradigmatic approach, examining their semantic components and lexical relations (hyponyms, hyponyms and polysemy). The theoretical basis of this section is principally based on the works of Geckeler (1976) and Saeed (2009). Finally, I analysed the selected verbs through a syntagmatic approach. Three syntactic aspects were examined for this section. Firstly, transitivity, regarding the arguments observed in different sentences retrieved from databases and dictionaries. Secondly, the logical structures of the selected verbs, considering the classification of Aktionsart stated by Vendler (1957) and the work of Smith (1991). Furthermore, the third feature analysed was the constructionist theory (Goldberg, 1995; Hilpert, 2014) and Levin's alternations (1993) applied to the verbs of hitting proposed in this paper.

The results of the current study were: (1) According to semantic components, the selected verbs present different semes, but there is concordance between them in the archisememe. (2) Regarding lexical relations, few verbs are considered polysemic. (3) Most selected verbs are considered transitive, observing a considerably smaller amount of intransitive verbs. It is essential to highlight that there are a few verbs that could be structured by both forms. (4) The selected verbs are classified by two Aktionsart types, semelfactive, which conforms to the vast majority of the verbs; and achievements, which is assembled by three verbal subdomains. (5) Ten constructions were analysed present in the selected verbs, being 'against construction,' 'with construction' and 'conative construction' the most utilised.

In conclusion, the outcoming results of this paper indicate that the classification of hitting verbs proposed in this study creates a coherent verbal group, considering their semantic and syntactic characteristics, even though they present different subtleties in performing the action of hitting. This study also proves the importance of considering both

paradigmatic and syntagmatic analysis when analysing verbs, for obtaining more complete results.

Keywords: Function-Lexematic Model, *Alternations*, Constructionist theory, *hitting* verbs.

2. Introduction

The study of the interface between syntax and semantics has been a predominant process for many investigations in linguistics. This paper aims to analyse the so-called hitting verbs and determine which ones are enclosed in this group. To achieve this goal, this study examines the behaviour of this lexical subdomain from a paradigmatic and syntagmatic approach guided by the Functional-Lexematic Model (Faber & Mairal, 1999).

The Functional-Lexematic Model is essential because it provides a methodical approach to analysing verbs. This model offers extensive knowledge for understanding how verbs work inside sentences and how their meanings derive from their semantic and lexical features by taking into account both functional and lexematic approaches.

The theoretical basis of this project lies principally in the previously mentioned work of Faber & Mairal (*Constructing a Lexicon of English Verbs*, 1999), attending the Functional-Lexematic Model; Levin (*English Verb Classes and Alternations*, 1993), for the analysis of the “Alternations” in hitting verbs; and Goldberg (*Constructions*, 1995), for contrasting Levin’s work with the “constructionist theory.” In addition to these theories, which act as the basis of this research, there are other linguists’ investigations that have been considered for this study, including Geckeler (1976), Riemer (2010), C. Smith (1991) and Saeed (2009).

Chapter 3 presents a theoretical framework to introduce different methods and concepts utilised during the study, and help understand the analysis of hitting verbs illustrated in the following sections. This chapter examined different methodologies, including the Functional-Lexematic Model, the alternation and constructionist theories. In addition, various linguistic terms would be defined, such as ‘seme,’ ‘sememe,’ ‘reference,’ ‘sense,’ ‘hyponym’, and ‘hypernym’, among others.

Chapter 4 focuses on the corpus selection of the study. The aim of this section is to determine which verbs could be enclosed in the verbs of hitting, following different criteria explained in the study. The methodology employed to achieve this goal is the examination of different classifications retrieved from four different sources, Levin (1993), Framenet (n.d.), Wordnet (n.d.) and Thesaurus (n.d.).

Chapter 5 is based on the paradigmatic analysis of the resulting list of verbs from chapter 4, focusing on the semantic and lexical relations that hold the selected verbs under study. This section investigates the meaning of the selected verbs considering their semantic

components. This chapter also studies the differences and similarities of the verbs, describing their lexical relations.

Chapter 6 illustrates the syntagmatic analysis of the selected verbs. This section aims to analyse the different syntactic aspects observed in the verbs by examining transitivity, the logical structures and the constructions in which these verbs can appear.

Finally, chapter 7 is centred on the description of the main conclusions of the study.

3. Theoretical framework

“A house is a building in which people live, usually the people belonging to one family” (Collins Dictionary, n.d.).

Collins Dictionary (n.d.) defines ‘house’ as it is shown above. While we all possess a mental definition of 'house' as a building where people live, the way we store and access this information makes up our mental lexicon. Saeed (2003:8) explains ‘lexicon’ as “The knowledge a speaker has of the meaning of words is often compared to a mental lexicon or dictionary.” Therefore, the lexicon is the store in our minds where we collect the meaning of the words we learn. This collection of words is not static because we are constantly learning and incorporating more and more words, as well as forgetting words. The meaning of words is studied by semantics. Saeed (2003:3) defines semantics as “the study of meaning communicated through language.” It is now well established from various studies that different levels of analysis examine speakers' linguistic knowledge of a language. To reflect this, Saeed (2003:3) classifies three linguistic disciplines:

- **Phonology** is the study of the sounds a language owns, and the analysis of the combination of these sounds to construct words.
- **Syntax** is the study of the formulation of sentences through words.
- **Semantics** is the study of the meanings of words and sentences.

Another aspect to bear in mind is how we store lexical units. Dictionaries are helpful tools that we use in our daily lives in order to obtain definitions and information about words. Most of them are structured in alphabetical order, also called semasiological order (Riemer, 2010:49-50). Nevertheless, linguists note that this method of organisation has no similarity with our mental approach, because our lexicon is not structured semasiologically. Therefore, many linguists consider that dictionaries should be revised from a psychological point of

view. Apart from semasiological dictionaries, Riemer (2010:49-50) distinguishes onomasiological dictionaries, which are based on another method of organising the lexicon. Onomasiological dictionaries shape the lexicon through a hierarchical system of domains and subdomains, considering word similarities. Contrary to semasiological dictionaries, those structured by an onomasiological order present more similarities with how our mental lexicon is composed. Two onomasiological dictionaries in English are Roget's Thesaurus (1987) and The Longman Lexicon of Contemporary English are two onomasiological dictionaries in English (1981).

The analysis carried out in this study is based on the '**Functional-Lexematic Model**,' which is central in linguistics, especially in the analysis of semantics and syntax at word and clause levels. The Functional-Lexematic Model determines the word as the basis of its study, examining words according to their syntactic, semantic, pragmatic and morphological characteristics. Furthermore, Faber and Mairal (1999:80) note that the FLM examines the lexicon through paradigmatic and syntagmatic relations, which are complementary as well as inseparable to achieve the full description of the lexicon:

- The **paradigmatic axis** is concerned with word selection and how words connect in terms of meaning. It focuses on how a term is connected to other words because of similarities in their contexts and meanings.
- The **syntagmatic axis** studies the linear placement of words inside a sentence and how they work together to convey meaning. It focuses on how the words that form a sentence relate to one another.

3.1. Paradigmatic axis

The Functional-Lexematic Model is central in the analysis of the lexicon, as has been mentioned. The paradigmatic axis deals with the connections between words, also called *lexemes*. Geckeler (1976:297) defines lexeme as "We call *lexemes* the members of a lexical domain, that is, the lexical units that function in a lexical domain"¹.

Lexical domains provide an organisation of lexemes through a hierarchy of domains and subdomains. These domains and subdomains examine the similarities between lexemes through an onomasiological approach. These connections observed between lexemes of the same lexical domain are explained through *genus* and *differentia*. Faber & Mairal (1999:59)

¹ Translation provided by myself from "Denominamos *lexemas* a los miembros de un campo léxico, es decir, a las unidades léxicas que funcionan en un campo léxico." (Geckeler, 1976, p. 297).

defines *genus* as “the superordinate terms of the domain or subdomain by means of which the other lexemes are directly or indirectly defines” and *differentiae* as “The semantic information in the meaning definition of a lexeme which distinguishes it from others in the same lexical domain. In other words, lexemes are grouped on one lexical domain because they share a central meaning, called *genus*. However, these lexemes also present different specific features between each other, named *differentia*. Lexical domains are organised hierarchically through a bottom-up system. This hierarchy of lexemes is determined by the previously mentioned terms *genus* and *differentia*.

Principle of Lexical Domain Membership: “*Lexical domain membership is determined by the genus, which constitutes the nucleus of the meaning of a lexeme*” (Faber and Mairal, 1999: 87).

These hierarchies of lexemes are led by an *archilexeme*. According to Geckeler (1976), an archilexeme is a term that serves as the basic connector meaning of a lexical domain. The related words of the same group, which are called *hyponyms*, possess the central meaning (*genus*), but present specifications of the broader meaning, illustrated as *differentiae*. Hyponyms can also serve as hypernyms when there are lexemes even hierarchically lower than the hyponym of the archilexeme (see *Figure 1*). Archilexemes are chosen using the **Stepwise Lexical Decomposition**, and according to Dik (1978), each lexical domain is assigned a semantic order. Faber and Mairal (1999:88) provide the following examples of archilexemes for each lexical domain:

- *To be* [EXISTENCE]
- *To become different* [CHANGE]
- *To have/give* [POSSESSION]
- *To say* [SPEECH]
- *To feel* [EMOTION]
- *To do/make* [ACTION]
- *To know/think* [COGNITION/MENTAL PERCEPTION]
- *To move (go/come)* [MOVEMENT]
- *To notice/perceive* [GENERAL PERCEPTION]
- *To see/hear/taste/smell/touch* [SENSE PERCEPTION]
- *To be/stay/put* [POSITION]

The verbs of *hitting*, which are the verbs under analysis in this study, belong to the lexical domain of “sense perception,” specifically to the archilexeme ‘to touch’ whether we consider the definition of these verbs as verbs of “contact-by-impact.” provided by Levin (1993:148).

create:	To cause to exist (something new or original)	
make:	To create sth, forming it by a work/action	
produce:	To create (special emphasis on the result or effect)	
	reproduce:	To produce offspring (animals/people/plants)
	procreate:	To reproduce (of animals, people) (formal)
	propagate:	To reproduce (animals) thus increasing in numbers (formal)
originate:	To create sth, bringing it into being	
establish:	To create sth (system, organization, state of affairs)	

Figure 1. Hierarchy of subdomain ‘to create.’

This first figure portrays the classification of hyponyms and hypernyms of the lexemes ‘to create,’ ‘to make,’ ‘to produce,’ ‘to reproduce,’ ‘to procreate,’ ‘to propagate,’ ‘to originate’ and ‘to establish.’ As can be seen, ‘to create’ is the archilexeme of this lexical domain. Therefore, the rest of the lexemes can be defined by the archilexeme as observed in *Figure 1*. We can observe that the verbs ‘to make,’ ‘to produce,’ ‘to originate’ and ‘to establish’ are defined by “to create...” Therefore, ‘to create’ determines the genus (central meaning) of all the lexemes.

Furthermore, lexemes present different characteristics of the same action. In the case of ‘to produce,’ the term is explained as ‘to create (special emphasis on the result or effect, while, for example, ‘to originate’ is described as “to create something, bringing it into being.” Furthermore, this table also illustrates the subdomain of the verb ‘to produce’ and ‘to reproduce.’ And, in the same way, it also shows the subdomain of ‘to reproduce,’ which is formed by ‘to procreate’ and ‘to propagate.’ As it occurs with archilexemes, the verbs of the same subdomain are defined by the main lexeme of the domain, that is why ‘to procreate’ and ‘to propagate’ are explained by “to reproduce...” and ‘to reproduce’ itself is defined by “to produce...”

3.1.1. Semantic decomposition

Geckeler (1976:299) explains that the meaning of a word can be researched through semantic features or components, also known as *semes*. This approach is known as **Semantic decomposition or componential analysis**. Geckeler (1976:300) further points out that many semes are common across several areas and can be further subdivided into *classemes*. *Archisememe* is the seme presented in all the lexemes of the same lexical domain, representing the core meaning of the group.

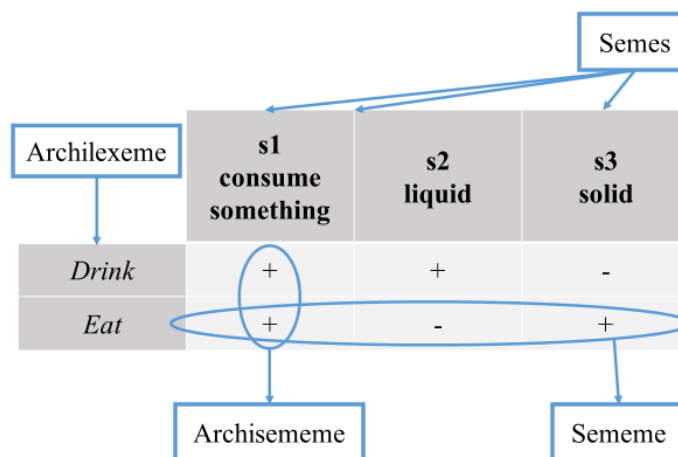


Figure 2. Semantic components of 'to drink' and 'to eat.'

In this practical case, it can be observed that seme 1 "consume something" corresponds to both verbs 'to drink' and 'to eat.' 'Liquid' (seme 2) is only related to 'to drink.' On the other hand, 'to eat' presents seme 3 'solid'. A *sememe* is the aggrupation of all the semes that construct the meaning of the word: Sememe = Seme 1 + Seme 2 + Seme 3. Therefore, we can observe both verbs structured as follows:

- 'To drink' [+consume something] [+liquid] [-solid]
- 'To eat' [+consume something] [-liquid] [+solid]

3.2. Syntagmatic axis

According to Faber & Mairal (1999:114-115), the syntagmatic axis refers to the way words and phrases are organized and combined in a sentence. The syntagmatic axis underlines the significance of word order and the function of words like prepositions, conjunctions, and articles in constructing grammatical links between words. By studying the syntagmatic axis, we see how words fit together to create meaningful connections. The

syntagmatic axis also demonstrates how important the paradigmatic axis' semantic knowledge is to account for the structure and purpose of verb complementation.

3.2.1. Arguments

Saeed (2003:160) asserted that verbs can be classified depending on their *arguments*. Arguments are words or groups of words that are required by the predicate to complete their meaning. Arguments are essential to the construction of grammatical sentences, and they can function differently, because they can be performed as a subject, object, or indirect object. Furthermore, arguments are differentiated by their *thematic role*. In linguistic theory, verbs are classified into different categories based on their relationship with the arguments. Van Valin & La Polla (1997:148) define the three main categories of verbs, intransitive verbs, transitive verbs, and ditransitive verbs, as follows:

- **Intransitive verbs** do not demand an object, only the subject. Intransitive verbs frequently convey a condition or an activity that has no bearing on somebody else or anything else. For instance:

(1) She laughed.

- Secondly, **transitive verbs** require two arguments. Transitive verbs frequently are performed by an activity that impacts another person or item. For example, the word "melted" is a transitive verb in the sentence:

(2) The fire melted the ice.

- And thirdly, **ditransitive verbs** are predicates that present three arguments in a sentence, subject, direct and indirect objects. Verbs in the ditransitive form frequently describe an activity that is done for or to another person, place, or thing. For instance, 'tell' is a ditransitive verb in example 3, since it contains both arguments, 'the children' (the indirect object) and 'a story' (the direct object):

(3) The teacher told the children a story.

An important aspect of the classification of verbs is their possibility to function as transitive as well as intransitive, depending on the context. For instance, 'walk.' In the phrase

"she walks," 'walks' is an intransitive verb, while in "she walked her dog," the verb is transitive due to the presence of the direct object 'her dog.'

3.2.2. Verb class

Saeed (2003:120-124) classified verbs into two classes, stative and dynamic verbs.

(4) Paul is tall

(5) Margaret has a dog

(6) Chris loves chocolate

Examples (4), (5) and (6) are established as **stative verbs** [+stative]. Saeed (2003:120) explains that stative verbs express situations in which something is stative, provoking no modification in any of the complements of the sentence. Furthermore, the speaker does not pay attention to the beginning or the end of the action, even though the predicate is in the past.

(7) John is playing with a ball

(8) Sandy coughed several times

(9) The window shattered

(10) Mary gave a book to her mother

Examples (7), (8), (9) and (10) are designed as **dynamic verbs** [-stative]. Dynamic verbs can be analysed as telic/atelic and durative/punctual. These verb forms correspond to various kinds of dynamic situations. The first difference is between verbs that describe a situation or process that lasts for a certain time, classified as *durative* [-punctual]; and verbs that describe an event that seems to happen so quickly that it takes almost no time at all, *punctual* [+punctual]. Telicity is the second aspect to analyse, differentiating verbs by presenting *telicity* [+telic] or not [-telic]. Those verbs that possess telicity are seen as complete actions, for example,

(11) Emily ran to the hospital.

As a result, a proper theory of lexical representation should clearly describe the semantic distinctions between stative/dynamic, durative/punctual, and telic/atelic. **Lexical decomposition**, which entails paraphrasing verbs in semantic components as we will see later, is the method we will employ to illustrate the lexical meaning of verbs. This system of lexical decomposition is based on Vendler's (1957) differences in Aktionsart typology, who underlined four fundamental verb classes: states, achievements, accomplishments, and activities. Van Valin & LaPolla (1997:102-104) define the verb classes as follows:

- **States.** Instead of describing an activity, these verbs express a constant or continuing situation. State verbs include verbs like 'to know,' 'to love,' 'to have' and 'to love.' They frequently represent features of an object, a person or an event that do not change quickly.
- **Activities.** These verbs depict continuous events or processes that occur throughout time and have no obvious conclusion. Verbs like 'write,' 'walk,' 'drink,' 'swim' and 'study' are all activities. They frequently describe acts that are continuing or repeated without a distinct beginning or conclusion.
- **Achievements.** These verbs express an action with a clear purpose that results in a change of state or condition. A few achievement verbs are 'pop,' and 'explode.' They frequently describe rapid, decisive acts or situations that occur suddenly.
- **Accomplishments.** These are the verbs used to express acts or occurrences that have a defined goal but need a continuous process or effort to accomplish. Accomplishment verbs include 'melt,' 'learn' and 'freeze.' They frequently describe tasks that demand time and effort and may include several stages or processes.

C. S. Smith (1991) made a further investigation into Vendler's system (1957) and included a fifth verb class called 'semelfactive.'

- **Semelfactives.** These verbs express a single, transitory action or event without duration or continuous action. 'Flash,' 'sneeze,' and 'jump' are a few examples of semelfactive verbs. They frequently express fast reactions and a lack of continuous effort.

An important aspect to mention is the possibility of a verb being classified into two verb classes. For example, in the case of 'paint,' the verb can be either an activity or an active accomplishment.

(12) Margaret paints

(13) Margaret painted a tree

Example 12 means that Margaret can paint, as a general situation. However, *example 13* determines a specific situation in which the action presents an ending. It is understood that at some point Margaret would finish her goal, which is painting the tree, and the action would have finished.

Regarding the semantic characteristics previously mentioned (stative/dynamic, durative/punctual, and telic/atelic), the verb classes for the lexical decomposition method that will be followed are as follows:

	Stative	Dynamic	Punctual	Telic
State	+	-	-	-
Activity	-	+	-	-
Achievement	-	-	+	+
Accomplishment	-	-	-	+
Semelfactive	-	+	+	-

Table 1. (Ojanguren López, 2019:132) Representation of verb classes regarding dynamicity, duration and telicity.

3.2.3. Lexical representation of verbs

Aktionsart is one of the most important theories in the field of linguistics. Verbs can be lexically represented by logical structures, following the Aktionsart typology of the verb analysed (Van Valin & LaPolla 1997:102-106). According to the conventions of formal semantics, *constants* are written in boldface with a prime ('). These constants are predominantly predicates. Another element represented in logical structures is the variable elements 'x' and 'y'², which are presented in normal typeface. These variables are filled with the lexical items that appear in the sentence. Elements written in capital letters are modifiers of the predicate, which portray the function of the verb, BECOME and INGR.

² *Hitting* verbs present also a third variable, 'w'. See *section 6.2*.

Aktionsart type	Logical Structure
STATE	predicate' (x) or (x, y)
ACTIVITY	do' (x, [predicate' (x) or (x, y)])
ACHIEVEMENT	INGR predicate' (x) or (x, y), or INGR do' (x, [predicate' (x) or (x, y)])
SEMELFACTIVE	SEML predicate' (x) or (x, y), or SEML do' (x, [predicate' (x) or (x, y)])
ACCOMPLISHMENT	BECOME predicate' (x) or (x, y), or BECOME do' (x, [predicate' (x) or (x, y)])

Figure 3. (Ojanguren López, 2019:132)

- States are represented as simple predicates (**predicate'**) with one or two variable elements (x, (y)). The logical structure is “**predicate'** (x) or (x,y).”

(14) Mary is dead

The logical structure of the sentence “Mary is dead” would be represented as “**dead'** (Mary).”

- The logical structure of activities is constructed by the generalized activity predicate **do'**. The logical structure is “**do'** (x, [**pred'** (x) or (x,y)])”

(15) Sam eats fish

This sentence would be represented as “**do'** (Sam, [**eat'** (Sam, fish)])”

(16) John run

However, whether the second argument (y) is not specified, the logical structure would be “**do'** (x, [**pred'** (x)])” as in (16), “**do'** (John, [**run'** (John)])”

- Achievement and accomplishment verbs are similarly structured, “INGR **pred'** (x) or (x,y)” for achievements and “BECOME **pred'** (x) or (x,y)” for accomplishments. 'INGR' means ‘ingressive’ which portrays the intrinsic meaning of spontaneous change. Meanwhile, ‘BECOME’ represents the change codified in the meaning of the verb over a certain time period and a following state predicate.

(17) The window shattered

(18) The snow melted

These would be examples of an achievement verb (example 17) and an accomplishment (example 18). They would be represented as “INGR **do'** (window, [**shatter'** (window)])” and “BECOME **do'** (snow, [**melt'** (snow)])” respectively.

The other logical structures, “INGR **do'** (x, [**pred'** (x) or (x, y)])” and “BECOME **do'** (x, [**pred'** (x) or (x, y)])”, are formed in order to represent achievement and accomplishment verbs from other languages, such as Russian, which are based on activity events (do').

- Semelfactives are structured by the element ‘SEML’ and an activity. Therefore, the logical structure is “SEML **do'** (x, [**pred'** (x) or (x, y)])”. ‘SEML’ is the abbreviation of ‘semelfactive.’ This type of verb class is differentiated from activities, because they describe a sudden action that happens only once.

(19) Sam cough

The representation of this sentence would be “SEML **do'** (Sam, [**cough'** (Sam)])”. As well as achievements and accomplishments, the other representation (SEML **pred'** (x) or (x,y)) for semelfactive verbs is employed in other languages, and English is not one of them

Van Valin & LaPolla (1997:107) also mention that each Aktionsart type possesses a causative type. The logical representation for causatives is characterised by the presence of the modifier “CAUSE” between the two arguments of the logical structure. Whether the nature of the cause is not mentioned, the logical structure is preceded by ‘**do'** (x, Ø)”.

(20) Max broke the window.

[**do'** (Max, Ø)] CAUSE [BECOME **broken'** (window)].

The participants that are involved in the action of a verb have a key role in the syntagmatic analysis. These participants are classified depending on their function, these are called the *thematic roles*. Saeed (2003) notes that the study of thematic roles is important for understanding the relationships between the different elements in a sentence, and how those relationships contribute to the overall meaning of the sentence. Thematic roles also help to provide a structure for the sentence, allowing the listener or reader to easily understand the

relationships between the different elements. Van Valin & LaPolla (1997:115) note that there are several different types of thematic roles:

I <i>State verbs</i>		
A Single argument		
1 State or condition	broken' (x)	X = PATIENT
2 Existence	exist' (x)	X = ENTITY
B Two arguments		
1 Pure location	be-LOC' (x, y)	X = LOCATION, Y = THEME
2 Perception	hear' (x, y)	X = PERCEIVER, Y = STIMULUS
3 Cognition	know' (x, y)	X = COGNIZER, Y = CONTENT
4 Desire	want' (x, y)	X = WANTER, Y = DESIRE
5 Propositional attitude	consider' (x, y)	X = JUDGER, Y = JUDGMENT
6 Possession	have' (x, y)	X = POSSESSOR, Y = POSSESSED
7 Internal experience	feel' (x, y)	X = EXPERIENCER, Y = SENSATION
8 Emotion	love' (x, y)	X = EMOTER, Y = TARGET
9 Attrib./identificational	be' (x, y)	X = ATTRIBUTANT, Y = ATTRIBUTE
II <i>Activity verbs</i>		
A Single argument		
1 Unspecified action	do' (x, \emptyset)	X = EFFECTOR
2 Motion	do' (x, [walk' (x)])	X = MOVER
3 Static motion	do' (x, [spin' (x)])	X = ST-MOVER
4 Light emission	do' (x, [shine' (x)])	X = L-EMITTER
5 Sound emission	do' (x, [gurgle' (x)])	X = S-EMITTER
B One or two arguments		
1 Performance	do' (x, [sing' (x, (y))])	X = PERFORMER, Y = PERFORMANCE
2 Consumption	do' (x, [eat' (x, (y))])	X = CONSUMER, Y = CONSUMED
3 Creation	do' (x, [write' (x, (y))])	X = CREATOR, Y = CREATION
4 Repetitive action	do' (x, [tap' (x, (y))])	X = EFFECTOR, Y = LOCUS
5 Directed perception	do' (x, [see' (x, (y))])	X = OBSERVER, Y = STIMULUS
6 Use	do' (x, [use' (x, y)])	X = USER, Y = IMPLEMENT

Figure 4. (Van Valin & LaPolla, 1997:115)

Van Valin & LaPolla (1997:141) asserts that there are two generalised thematic roles, 'agent' and 'patient'. The agent is the subject in an active sentence, while the patient is the object. These general thematic roles corresponds to macroroles. There are two macroroles, the actor (agent) and undergoer (patient). These macroroles also correspond to the rest of the thematic roles, such as 'possessor' (actor) and 'possessed' (undergoer), etc. Macroroles³ play a fundamental role in linguistics, because we can understand different linguistic aspects.

³ Macroroles would be further explained in sections 6.2 and 6.3.

3.2.4. Constructions and alternations

Levin (1993) established a syntagmatic classification of predicates depending on their possibilities that occur in different sentence structures. This classification of syntagmatic *alternations* provides useful information about predicates, in order to understand the manner in which they can be utilised in different contexts, showing various meanings for the same predicate.

Golberg (1995) and Hilpert (2014) proposed the *constructional theory*. This linguistic approach focuses on the classification of constructions. Goldberg (1995) and Hilpert (2014) explain constructions as patterns of words and sentences that provide specific meanings and functions. In contrast to the classification of Levin (1993) structured by alternations, which is centred on the relationship between the predicate and the selection of structures.

Overall, this study will follow this last theory and will reinterpret the alternations of Levin (1993) as constructions. Levin's system (1993) of constructions (alternations) includes the following types for the subdomain under analysis in this study:

- **With-instrument construction**

The 'with-instrument construction' is characterised by the preposition 'with.' Verbs found with this construction possess an instrument in the sentence. This instrument is structured as a prepositional phrase, which consists on the preposition 'with' + the instrument utilised.

(21) Brian hit the fence with the stick.

- **Against constructions**

The verbs that present this construction are featured by the preposition 'against.' The preposition phrase formed by "'against' + NP" represents the entity or surface that the action of hitting is directed towards. Therefore, the prepositional phrase is commonly interpreted as a location.

(22) Brian hit the stick against the fence.

- **Conative construction**

With the conative construction the object of the sentence in the transitive structure is transformed, into a prepositional phrase in the intransitive sentence, which is usually headed by the preposition ‘at,’ and in some cases ‘on.’ This modification creates a different meaning of the sentence, since the action is observed as attempted without affirming whether the action was actually performed or not. This construction is mostly found with verbs that mean both ‘contact’ and ‘motion.’

(23) The mouse nibbled the cheese. [transitive construction]

(24) The mouse nibbled at the cheese. [conative (at) construction]

- ***Together* Reciprocal Construction (transitive)**

The “*together* reciprocal construction” modifies sentences in which verbs are presented as ‘NP1 V PP(P+NP2)’, showing NP1 and NP2 separately. The ‘together reciprocal construction’ is characterised by grouping NP1 and NP2 with the adverb ‘together’ as ‘NP(NP1 ‘and’ NP1) V together’ representing the result of the action. The “*together* reciprocal construction” groups verbs according to the preposition utilised instead of their semantic features.

(25) The eggs mixed with the cream. [‘NP1 V PP(P+NP2)’]

(26) The eggs and the cream mixed together. [‘NP(NP1 ‘and’ NP1) V together’]

- **Instrument Subject Construction**

Some sentences present arguments expressing instruments, which possess the possibility of turning up into subjects. Nevertheless, this modification of the instruments cannot be done with all types of instruments. Verbs like ‘to eat’ or ‘to see’ do not allow their instruments to be structured as subjects. Therefore, this construction is only available for those instruments that are permitted to be subjects according to their type and the verb. This construction is interpreted by the “causal chain” (Deng & Li, 2003:5). Due to the causal chain, the instrument (‘y’) can be selected as the actor instead of ‘x.’ Therefore, the instrument would be placed as the subject of the sentence, and the effector of the action

would be taken off from the sentence. This explanation would be much clear with the next examples:

- (27) Mary [**Effector-Actor**] hit Emily [**Patient-Undergoer**] with a stick
[**Instrument**]
- (28) The stick [**Instrument-Actor**] hit Emily [**Patient-Undergoer**] (Instrument
subject construction)
- (29) *The stick [**Instrument-*Actor**] hit Emily [**Patient-Undergoer**] by/with
Mary [**Effector-*Actor**]

- **Body-Part Possessor Ascension Construction**

The verbs that show this construction possess the possibility of structuring two arguments, the possessor and the possessed body part into one NP. When the two arguments are represented separately, they are divided into a direct object, expressing the possessor; and a prepositional phrase, formed by a locative preposition + the part of the body. In the “body-part possessor ascension construction”, the possessor is stated as a genitive possessor within the noun phrase, and both parts can be expressed as a single noun phrase, maintaining the function of the direct object in the sentence.

- (30) Selina touched the horse on the back.
- (31) Selina touched the horse's back.

- **Unintentional Interpretation of Object Construction**

This construction is featured by presenting a verb which achieves a different meaning due to the insertion of a reflexive object or a body-part object. The subject of the verb in this construction has been described as an experiencer or patient, and the action is being performed on the subject unintentionally.

- a. **Unintentional Interpretation with Reflexive Object Construction**

In this construction, certain verbs accept a reflexive object, which causes a modification of the sense of the verb into an unintentional meaning. Thus, the subjects of the verbs that occur in this construction are not

understood as intentional actors of the action, even though they are classified as agents. The person implied is understood as actor and patient.

- (32) Pauline cut herself (on the sharp stone).

b. Unintentional Interpretation with Body-Part Object Construction

This construction is characterised by the other possibility of ‘Unintentional Interpretation of Object Construction,’ which is the body-part object. The same as the construction of ‘Unintentional interpretation with Reflexive Object Construction,’ this construction denotes an unintentional sense. In the case of this construction, the focus is on the subject who is understood as the possessor of the body part, and the action is not understood as intentionally done by the owner of the body part.

This construction is attested mainly with certain classes of verbs, even though not all of their members have the possibility of presenting this alternation. Consequently, as Levin (1993:104) notes, “this property may reflect the fact that body parts are not possible objects of all the verbs in each of the classes.”

- (33) Carrie broke her arm.

● **Resultative Construction**

The resultative construction includes an XP which expresses the condition that the referent of the noun phrase presents as a result of the action determined by the verb. Resultative constructions are not associated with any verb class, allowing many verbs to show this construction. Nevertheless, there are some restrictions, for instance, the exclusion of stative and direct motion verbs.

- (34) The guests drank the teapot dry.

4. Corpus selection

The central goal of this paper is to analyse the so-called ‘*hitting* verbs.’ The archilexeme of these verbs is ‘to hit’ (further explanation in *section 5.1*). Several research have been undertaken to classify the synonyms or hyponyms of the verb ‘to hit.’ This second section of the paper examines *hitting* verbs to establish which ones could be included in this group. Therefore, in order to achieve this goal, the research data in this dissertation is drawn from four primary sources, Thesaurus (n.d.), WordNet (n.d.), FrameNet (n.d.) and Levin (1993).

Thesaurus (n.d.). Thesaurus (n.d.) shows a classification of synonyms for ‘hit.’ These synonyms of ‘hit’ are divided into different groups according to the specific meaning of ‘hit’ that they share. Nevertheless, only two lists have been selected for the corpus of this study, those that include central meanings of ‘strike’ and ‘collide, bump into.’

- The classification of ‘to strike.’

Bat	Batter	Beat	Belt
Blast	Kick	Knock	Knock out
Nail	Pop	Punch	Slap
Smack	Whack	KO	Bang
Bash	Blitz	Box	Brain
Buffet	Bump	Clap	Clip
Clobber	Clout	Club	Crack
Cudgel	Cuff	Dab	Ding
Flail	Flax	Flog	Hammer
Hook	Jab	Lace	Lambaste
Larrup	Lather	Lob	Pellet

Pelt	Percuss	Pound	Rap
Sock	Stone	Swat	Tap
Thrash	Thump	Thwack	Trash
Uppercut	Wallop	Whang	Give a black eye
Let fly	Knock around	Let have it	Ride roughshod

- The classification of 'to collide, to bump into.'

Crash	Knock	Smash	Buffet
Butt	Carom	Clash	Glance
Jostle	Light	Meet	Pat
Rap	Scrape	Sideswipe	Stumble
Tap	Thud	Thump	Bang into
Meet head-on	Run into		

Secondly, **WordNet** (n.d.) presents a classification for the hyponyms of the verb 'to hit.' The current investigation also includes the hyponyms of the verb 'to strike' for the corpus selection. The reason for this decision was the fact that WordNet (n.d.) includes 'strike' as a sister term of the verb 'to hit.' 'Impinge on,' 'run into' and 'collide with' were also investigated due to the same reason as 'strike,' but they are not included in this investigation, since their classifications of hyponyms were the same as 'to hit.'

- 'To hit.' Hit, strike, impinge on, run into, collide with (hit against; come into sudden contact with) "The car hit a tree"; "He struck the table with his elbow."
- 'To strike.' Strike (deliver a sharp blow, as with the hand, fist, or weapon) "The teacher struck the child"; "the opponent refused to strike"; "The boxer struck the attacker dead."

- Hyponyms of 'hit.'

Stub	Ping	Spang	Bang
Rear-end	Broadside	Connect	Spat
Thud	Bottom	Bottom out	Bump
Knock	Run into	Bump into	Jar against
Butt against	Knock against	Collide	Clash
Smash	Shock	Crash	Rram
Glance	Strike	Impinge on	Run into
Collide with			

- Hyponyms of 'strike.'

Jab	Dab	Pat	Butt
Bunt	Headbutt	Knock	Strike hard
Down	Knock down	Cut down	Push down
Pull down	Submarine	Spur	Peck
Pick	Beak	Tap	Tip
Percuss	Hew	Snag	Sideswipe
Whip	Lash	Urticate	Beat
Full	Scloff	Beetle	Bastinado
Deck	Coldcock	Dump	Knock about
Floor	Whang	Paste	Thrash

Thresh	Hammer	Sledgehammer	Sledge
Buffet	Batter	Clout	Rap
Knap	Knock	Chop	Slap
Cuff	Whomp		

The third source used for the corpus selection process in this dissertation was **FrameNet** (n.d.). FrameNet (n.d.) provides different classifications for the word ‘hit’ because it is integrated as a member in different lexical frames.

Lexical Unit	Frame	LU Status	Lexical Entry Report	Annotation Report
hit the road.v	Getting_underway	Created	LE	
hit.n	Impact	Created	LE	
hit.n	Hit_or_miss	Created	LE	
hit.v	Cause_harm	Finished_Initial	LE	Anno
hit.v	Impact	Finished_Initial	LE	Anno
hit.v	Experience_bodily_harm	Finished_Initial	LE	Anno
hit.v	Cause_impact	Finished_Initial	LE	Anno
hit.v	Hit_target	Created	LE	Anno
hit.v	Hit_or_miss	Needs_SCs	LE	Anno
hit.v	Cause_motion	Created	LE	
hit.v	Arriving	Created	LE	Anno
hit.v	Eventive_affecting	Created	LE	Anno
hit.v	Attack	Created	LE	Anno
hit.v	Enter_awareness	Created	LE	Anno
hitch.v	Attaching	Finished_Initial	LE	Anno
hitchhike.v	Self_motion	Created	LE	
hitchhike.v	Ride_vehicle	Finished_Initial	LE	Anno

Figure 5.

The selected frame for this study is ‘impact,’ since, after revising the different classifications, the frame ‘impact’ was the most complete one in terms of the number of verbs. Many of the words included in ‘impact’ are incorporated in other frames, such as ‘cause_Impact’ and ‘cause_harm.’ FrameNet (n.d.) includes nouns in the ‘impact’ classification, apart from verbs. However, these nouns would not be included since this study is centred on verbs.

- The classification of ‘hit v.’ “impact”

Bang	Brush	Bump	Chatter
Clang	Clash	Clatter	Click
Clink	Clunk	Collide	Crash
Crunch	Graze	Hiss	Hit
Impact	Impinge	Knock	Patter
Plash	Plop	Plow	Plunk
Rap	Rattle	Run	Slam
Slap	Smack	Smash	Strike
Tinkle	Touch	Thud	Thump

Levin (1993:148-153) also provides a classification for the verbs of ‘contact by impact,’ which is in turn subdivided into three groups: ‘*hit* verbs,’ ‘*swat* verb’ and ‘*spank* verbs.’ Even though one of the groups is defined as ‘*hit* verbs,’ this paper interprets the three groups as representing different manners of hitting. Therefore, the three subcategories will be taken as part of the corpus selection of this study.

- Subclass of ‘*hit* verbs’

Bang	Bash	Batter	Beat
Bump	Butt	Dash	Drum
Hammer	Hit	Kick	Knock
Lash	Pound	Rap	Slap
Smack	Thump	Strike	Tamp
Tap	Smash (where no effect is implicated)	Thwack	Whack

- Subclass of ‘*swat verbs*’

Bite	Claw	Paw	Peck
Punch [sb]	Scratch	Shoot (gun)	Slug
Stab	Swat	Swipe	

- ‘*Spank verbs*’ subclass

Belt	Birch	Bludgeon	Bonk
Brain	Cain	Clobber	Conk
Cosh	Cudgel	Cuff	Flog
Knife	Paddle	Paddywhack	Pummel
Sock	Spank	Stap	Thrash
Truncheon	Wallop	Whip	Whisk

4.1. Verb selection

Different classifications have been shown in the previous section proposed by Levin (1993), FrameNet (n.d.), WordNet (n.d.) and Thesaurus (n.d.). Nevertheless, this investigation does not apply the same criteria utilised for classifying the verbs in the four sources. Levin (1993) and FrameNet (n.d.) centre on a syntagmatic approach that categorises verbs regarding their alternations, and leaves semantic similarities aside. Another methodology employed for organising verbs can be observed in Thesaurus (n.d.). As explained before, the system employed by Thesaurus (n.d.) is constructed by relating words as synonyms.

The current study conveys a paradigmatic analysis to select the verbs that would cluster together into one semantically coherent group. As mentioned in *section 3.1*, the Functional-Lexematic Model (Faber & Mairal, 1999) explains that the paradigmatic analysis studies terms regarding their *genus* (nuclear meaning) and *differentia* (differences between words). This investigation establishes the verb ‘to hit’ as the genus of *hitting* verbs.

Therefore, it is crucial to provide a description of the verb ‘to hit.’ Collins Dictionary (n.d.) defines ‘to hit’ as “If you hit someone or something, you deliberately touch them with a lot of force, with your hand or an object held in your hand.” This definition has been taken as the genus of this study, since it includes several aspects taken into account in this investigation, such as the use of objects for the action of hitting.

The selected verbs for this study were retrieved from the four sources presented in the *corpus selection*. Primary inclusion **criteria** for *hitting* verbs were the definition of the verbs by the central meaning ‘to hit someone or something’ and a deliberate force made through the action.

The first criterion considers the meaning of the verb. Verbs that meant an action of ‘contact by impact’ or could be defined by ‘hit’ were included in the list of selected verbs. Four dictionaries were employed in order to identify the meaning of “to hit,” Collins English Dictionary (n.d.), Cambridge Dictionary (n.d.) and Macmillan Dictionary (n.d.). Thus, some verbs that represented another action, shown in other classifications, were not included in this study, such as ‘to leap,’ ‘to jerk,’ ‘to scuff,’ ‘to shoot,’ ‘to jostle’ and ‘to stone.’

The second aspect considered for the inclusion of verbs was the force performed in the action. Verbs like ‘to dab,’ ‘to pat,’ ‘to peck,’ ‘to tap’ and ‘to tip’ present an intrinsic meaning of hitting with a light impact. Therefore, this type of verb will not be considered for the classification of verbs in this study. Another type of verb that was not considered for this investigation was the phrasal verbs, due to the presence of an analysis of constructions in this study (*section 6.3*).

Therefore, this paper proposes a new list of *hitting* verbs, examining the verbs provided by the four sources.

Bang	Bash	Bastinado	Bat
Batter	Beat	Beetle	Belt
Birch	Blast	Bludgeon	Bonk
Brain	Broadside	Buffet	Bump
Cane	Clash	Clip	Clobber

Clout	Club	Clunk	Coldcock
Collide	Conk	Connect	Cosh
Crack	Crash	Cudgel	Cuff
Dash	Deck	Down	Dump
Flail	Flog	Floor	Hammer
Headbutt	Hit	Hook	Impact
Impinge	Kick	Knock	Lambaste
Larrup	Lash	Lather	Paddle
Paste	Peck	Pick	Pound
Pummel	Punch	Ram	Rear-end
Shock	Sideswipe	Slam	Slap
Sledgehammer	Slug	Smack	Smash
Sock	Spat	Spur	Strap
Strike	Swat	Swipe	Thrash
Thresh	Thud	Thump	Thwack
Truncheon	Uppercut	Wallop	Whack
Whang	Whip	Whomp	

5. Paradigmatic analysis

This sixth section deals with the methodology used for the paradigmatic analysis. Throughout this section, different aspects of *hitting* verbs will be analysed, divided into two sections, *semantic components* and *lexematic analysis*. The *semantic component* section will

focus on analysing the semantic decomposition (also called componential analysis) of the selected verbs, following the theory explained by Geckeler (1976:295). The *lexematic analysis* would be concentrated on the examination of polysemy, synonymy, hyponymy and hypernymy.

5.1. Semantic components

According to Geckeler (1976:295), verbs can be analysed by their semantic components. These semantic components are composed of semes. The following tables portray different semes considered important for analysing *hitting* verbs. Collins Dictionary (n.d.), Macmillan Dictionary (n.d.), Cambridge Dictionary (n.d.) and Longman Lexicon for Contemporary English (n.d.) have been employed for the dissertation of the selected verbs. When verbs are marked as '+', they present the component in their definition; meanwhile, whether verbs are marked as '-', they cannot be defined by the component, since they mean the opposite, for example. Another mark utilised in the classification is '±', which means that verbs could have this component or not depending on the entry in the dictionary. The rest of the boxes are empty due to the possible compatibility between the seme and the verb, though it is not intrinsic in the definition of the verb.

It is essential to mention that due to the number of verbs, the decomposition has been divided into two tables. This division would not be prejudicial for the analysis of *hitting* verbs, because the semes not analysed in each table are not established as intrinsic features. Therefore, these verbs would not be marked.

Different semes are examined in the following tables. Semes 1, 2, 3 and 4 would be analysed throughout all the tables, since they are present in the lexemes of both tables, and are also important for the classification of hypernyms and hyponyms in *section 5.2.3*.

- Seme 1: To touch someone/something hard.
- Seme 2: To hit someone/something with more force.
- Seme 3: to hit someone/something that is moving.
- Seme 4: To hit someone/something repeatedly.
- Seme 5: To hit someone to the floor.
- Seme 6: To hit someone so that they become unconscious.

- Seme 7: To hit someone/something on the side.
- Seme 8: To hit, causing sound due to the impact.
- Seme 9: To hit with an instrument.
- Seme 10: To hit with the open hand.
- Seme 11: To hit someone with a part of the body.

	s1	s2	s3	s4	s5	s6	s7
Hit	+						
Strike	+	+					
Down	+	+			+		
Knock	+	±	±	±	±	±	
Dump	+	+			+	+	
Deck	+	+			+		
Coldcock	+	+			+		
Fall	+	+			+		
Floor	+	+			+		
Bash	+	±	±				
Smash	+	±	±				
Slug	+	+					
Clout	+	+					
Clip	+	+					+
Sideswipe	+	+					+
Punch	+	+					

Whack	+	+					
Smack	+	+					
Wallop	+	+					
Blast	+	+					
Swipe	+	+					
Connect	+	+					
Sock	+	+					
Buffet	+	+					
Collide	+		+				
Crash	+		+				
Rear-end	+		+				
Ram	+		+				
Slam	+		+				
Clash	+		+				
Broadside	+		+				+
Bump	+		+				
Impact	+		+				
Shock	+		+				
Impinge	+		+				
Dash	+		+				

Table 1.

The first table of the analysis of semantic components corroborates that ‘hit’ is the archilexeme of *hitting* verbs, since it is the only verb whose sememe is observed in the rest of the verbs, which are designed as the lexemes of ‘hit,’ the archilexeme (‘hit’). Therefore, it could also be concluded that seme 1 ‘contact by impact’ is considered as the archisememe of *hitting* verbs, due to the same reason of presence in the rest of the lexemes exposed.

This first table of semantic components analysis shows seme 2 and seme 3, which are the two most important features for the classification of the lexemes. Most of the verbs examined in this study possess the seme 2. However, there are a few selected verbs which are denominated by the seme 3. As can be seen in *table 1*, some of these verbs are ‘collide,’ ‘crash,’ ‘rear-end,’ ‘clash,’ ‘broadside’ and ‘ram.’ The verbs ‘bash,’ ‘smash’ and ‘knock’ are marked with the symbol ± in semes 2 and 3, since they can be either defined by seme 2 or seme 3 depending on the entry of the dictionary. In the case of ‘broadside,’ the lexeme is also marked as + in seme 7, which describes that the action was made at an angle. This seme is also observed in the verbs ‘clip’ and ‘sideswipe.’

- Bash M1: [+ s1] [+ s2]
- Bash M2: [+ s1] [+ s3]
- Smash M1: [+ s1] [+ s2]’
- Smash M2: [+ s1] [+ s3]

The three other semes discussed in this table are seme 4, seme 5 and seme 6. Seme 4 denotes repetition in the action. In other words, the person/object hits someone or something several times. This seme would be examined deeply in the next table. Seme 5 describes the verbs that possess the notion of hitting, but focus on the end of the action which is featured by leaving the hit person on the floor. These verbs are ‘knock,’ ‘dump,’ ‘deck,’ ‘coldcock,’ ‘fall’ and ‘floor.’ Seme 6 is related to seme 5, since the verbs that are enclosed in this seme are ‘knock’ and ‘dump.’ These verbs are characterised by also finishing the action with the person who is hit on the floor. However, in the case of these verbs, the affected person is also unconscious.

‘Knock,’ which was previously mentioned, is an interesting verb, because this verb is marked as ± in almost all the semes. Knock possesses the seme 1 in positive, which permits

this verb to be considered a *hitting verbs*. Depending on the dictionary definition and the different entries, ‘knock’ can be either defined by the following sememes:

- Knock M1: [+ s1] [+ s2] [+ s4]
- Knock M2: [+ s1] [+ s2] [+ s5] [+ s6]
- Knock M3: [+ s1] [+ 3]

The first meaning of ‘knock’ describes an action of hitting someone/something hard and many times, as in “knock at the door.” ‘knock M2’ also describes hitting someone hard, but in this case, the force implied is higher, provoking the person who is hit to end unconscious on the floor. Finally, the third sememe of ‘knock’ (knock M3) is characterised by a hitting action produced while something or someone is moving.

The verbs ‘strike,’ ‘slug,’ ‘clout,’ ‘punch,’ ‘whack,’ ‘bash’ (when [- s2]) and ‘wallop’ are all described with the same sememe (V: [+ s1] [+ s2]). This likeness is because they all mean ‘to hit hard,’ provoking that they are analysed in the same way according to their semantic components. Nevertheless, these verbs will be examined further in *section 5.2.3*, that is focused on the relationships of hyponymy and hypernymy between all the lexemes.

	s1	s2	s3	s4	s8	s9	s10	s11
Beat	+	+	-	+				
Thresh	+	+		+				
Thrash	+	+	-	+	+			
Lambaste	+	+	-	+	+			
Paste	+	+	-	+	+			
Bang	+	±	±		±			
Pound	+	+	-	+	+			
Thump	+	+	-	+	+			

Whomp	+	+	-	+	+			
Pummel	+	+	-	+				
Batter	+	+	-	+				
Clobber	+	+	-	+				
Crack	+	+			+			
Thud	+	+			+			
Whang	+	+			+			
Slap	+	+			±		+	
Clunk	+	+						+
Brain	+	+						+
Headbutt	+	+						+
Kick	+	+						+
Conk	+	+						+
Bonk	+	+						+
Smack	+	+					+	
Cuff	+	+					+	
Swat	+	+					+	
Spat	+	+					+	
Whip	+	+				+		
Flog	+	+				+		
Bat	+	+				+		

Larrup	+	+				+		
Lather	+	+				+		
Lash	+	+				+		
Thwack	+	+				+		
Paddle	+	+				+		
Spur	+	+				+		
Cane	+	+				+		
Pick	+	+				+		
Beetle	+	+				+		
Hammer	+	+			±	+		
Sledgehammer	+	+				+		
Peck	+	+				+		
Belt	+	+				+		
Bludgeon	+	+				+		
Club	+	+				+		
Cosh	+	+				+		
Cudgel	+	+				+		
Strap	+	+				+		
Flail	+	+				+		
Hook	+	+				+		
Truncheon	+	+				+		

Uppercut	+	+				+		
Bastinado	+	+				+		

Table 2.

This second table shows that all the portrayed verbs present semes 2 and 3. Nevertheless, ‘bang’ is marked with the symbol \pm , which means that this verb could be either understood as seme 2 or seme 3, depending on the intended use of the verb.

(35) Pauline bashed Charlie on the head [seme 2]

(36) Louise bashed into a lamppost [seme 3]

‘Bang’ is also described as \pm in seme and 8. Therefore, the verb ‘bang’ could also express sound (seme 8). Therefore, these are the possible sememes of ‘bang’ regarding its different meanings:

- Bang M1: [+ s1] [+ s2] [+ s8]
- Bang M2: [+ s1] [+ s3]

In the case of ‘slap,’ the verbs can be either defined by the seme 8 or seme 10, because of the centre of attention. Whether the most important aspect of the action is the sound produced, ‘slap’ would be described by seme 8. Meanwhile, whether the focus of the action is placed on the use of the palm, the seme of ‘slap’ would be seme 10, and seme 8 would be negative. In other words, dictionaries⁴ differentiate the verb ‘slap’ according to these two semes, which in summary, shows the possibility of ‘slap’ producing a sound or not when doing the action of hitting.

- Slap M1: [+ s1] [+ s2] [+ s8] [+ s10]
- Slap M2: [+ s1] [+ s2] [+ s10]

⁴ The Longman Dictionary of Contemporary English, n.d.; Cambridge Dictionary, n.d.; Collins Dictionary, n.d.; and, Macmillan Dictionary, n.d.

5.2. Lexical relations

Once the lexematic analysis has been examined, the analysis will focus on the lexematic relations observed between the selected lexemes. The methodology employed in this section would follow the theory proposed by Saeed in *Semantics* (2009:63-70), examining polysemy, synonymy, hypernymy and hyponymy.

5.2.1. Polysemy

The next lexical relation analysed in this study is polysemy, which would also follow the explanation of Saeed in *Semantics* (2009:370): “group of related but distinct meanings attached to a word.” In other words, polysemy is the phenomenon of a word which does not present only one meaning, but two or more senses. Polysemy has been observed in the lexematic analysis, particularly seme 2 ‘strike’ and seme 3 ‘collision.’ The verbs marked with the symbol ± present polysemy, because they could signify “to collide” or “to strike.” Such lexemes are ‘bash,’ ‘bump’ and ‘knock.’

- **Bash**

‘To strike violently or crushingly’

(37) Mary bashed Chris on the head

‘To crash (into); collide (with)’

(38) The motorbike had bashed into a wall.

- **Bump**

‘To knock or strike with a jolt’

(39) Jane bumped her arm on the table

‘To collide with a jolt’

(40) Peter ran after Olive, bumping against people in my hurry.

- **Knock**

(Knock M2) ‘To strike a blow or blows with the fist or some hard object’

(41) The boxer knocked out his opponent in the third round.

(Knock M3) ‘To collide (with)’

(42) The car knocked against a traffic sign.

5.2.2. Synonymy and hyponymy

Saeed explains different aspects to consider when making lexical relations in his book *Semantics* (2009:65), including synonymy: “Synonyms are different phonological words which have the same or very similar meanings.”

Determining whether two lexemes could be considered synonyms is a complex task. The reason is that they could hold a hypernymy/hyponymy relation instead of being associated as synonyms. Moreover, it may seem that two terms cannot be absolute synonyms since they should differ in at least one relevant feature. Dictionaries also contribute to adding difficulty, because of the similarity in their entries between the definitions of two lexemes. Other dictionaries provide a list of possible synonyms, such as *Thesaurus* (n.d.). However, this classification does not provide sufficient information to facilitate the analysis of synonymy between such words. Therefore, regarding different dictionaries⁵ and examples of verbs in sentences, it has been found that some verbs could be defined as synonyms, such as ‘sock’ ‘thump,’ and ‘punch’

- **Sock:** to hit someone very hard, especially with your hand closed.

(1) He socked her in the face.

- **Thump:** to hit someone very hard with your hand closed.

(2) If you don’t shut up, I’m going to thump you!.

- **Punch:** to hit someone or something hard with your fist (=closed hand)

(3) He punched Jack in the face.

As can be observed, these verbs could be interchanged between the sentences and their meanings would not be affected. As a result, it can be understood that ‘sock,’ ‘thump’ and ‘punch’ are synonyms.

⁵ Collins Dictionary (n.d.), Longman Lexicon of Contemporary English (n.d.) Cambridge Dictionary (n.d.) and Macmillan Dictionary (n.d.).

5.2.3. Hypernymy and hyponymy

In this section, the hypernyms and hyponyms of *hitting* verbs will be examined according to Saeed (2009:69). The principal system utilised for the analysis of hypernymy and hyponymy is their semantic components, classifying the selected verbs according to their similarities in semes. However, there are many lexemes classified in the same way. Therefore, the second criterion employed is the amplitude of the verbs, because verbs that describe a more general action of *hitting* possess more possibilities to be established as the hypernym of the subdomain.

Apart from the generalisation of the action, verbs were also analysed according to their auto-definition in dictionaries, due to the lack of information in the dictionaries' entries. Therefore, some verbs could not be established in one subdomain because of the examination in this study, but rather for their definitions. This method was highly utilised in lexemes whose hypernyms were specific actions. For example, 'larrup,' which only appears in Collins Dictionary (n.d.), and its description is "to whip; flog, beat." The fourth method was the frequency system retrieved from Collins Dictionary (n.d.). This dictionary utilises a measure to know, on a scale from 1 to 5, the frequency of the word in the language. Thus, this information will also be necessary for examining hypernyms and hyponyms of the selected verbs. The analysis of hypernymy and hyponymy of the lexemes is the following one:

- Hit
 - Strike (force)
 - Beat (repeatedly)
 - Thresh (beat, strike)
 - Knock M1 (repeatedly, 'at the door')
 - Thrash (repeatedly, sound)
 - Lambaste (beat soundly, thrash)
 - Paste (beat soundly)
 - Hammer M1 (many times, sound)
 - Pound (hit, loudly, repeatedly)
 - Thump (pound) (loud, hard)
 - Whomp (heavy, sound; thump)
 - Pummel (beat)

- Batter (fists, many times)
 - Clobber (beat, batter)
- Down (ground)
 - Knock M2 (unconscious)
 - Dump (knock down)
 - Deck (fall over)
 - Coldcock (to the ground)
 - Fall (hard fall over)
 - Floor (fall over)
- Brain (body) (on the head)
 - Headbutt (on the top of the head)
 - Clunk (hard, on the head)
 - Kick (with the foot)
 - Conk (on the head or nose)
 - Bonk (on the head, resounding blow)
- Flog (whip, flog)
 - Whip (whip)
 - Larrup (flog)
 - Lather (flog soundly)
 - Birch
 - Bat
 - Paddle
 - Spur
 - Cane
 - Uppercut
 - Pick
 - Lash
 - Beetle
 - Hammer M2
 - Sledgehammer
 - Thwack

- Peck
- Belt
- Bludgeon
- Club
- Cosh
- Cudgel
- Strap
- Flail
- Hook
- Truncheon
- Bastinado
- Crack (hit resounding forceful blow)
 - Bang M1 (once, sound)
 - Whang (strike noise)
 - Slap M1 (against) (sound) (Longman)
 - Thud
- Slap M2 (open hand)
 - Cuff (slap, usually on the head) (beyoncé) (más veces slap que head)
 - Swat
 - Smack (open hand)
 - Spat (slap, smack)
- Bash M1 (hard and careless)
- Smash M1 (forcefully)
- Slug (hit with force) (slang)
- Clout (hit hard) (Longman)
- Clip (quickly at an angle) (Longman)
 - Sideswipe (side) (Longman)
- Punch (hard, solidly fist) (blow)
- Whack (hit hard)
- Wallop (hit hard)

- Blast
- Connect
- Sock
- Swipe
- Buffet
- Collide
 - Crash
 - Rear-end
 - Smash M2
 - Bash M2
 - Ram
 - Slam
 - Clash
 - Knock M3
 - Broadside (side)
 - Bump
 - Impact
 - Bang (into) M2
 - Shock
 - Impinge
 - Dash

In section 5.1., ‘hit’ was established as the archilexeme of *hitting verbs*, this is the reason why this is the principal hypernym of the group. Semes 2 and 3 are observed since verbs are divided into two subdomains, the verbs whose hypernym is ‘strike’ (seme 2) and the other verbs whose hypernym is ‘collide’ (seme 3). ‘Strike’ and ‘collide’ have been organised as hypernyms due to their general definition of the action and their higher frequency of these lexemes in comparison to the rest of the selected verbs.

Below ‘strike,’ different subdomains appear, ‘beat,’ ‘down,’ ‘brain,’ ‘flog,’ ‘crack,’ ‘slap’ and other verbs. These “other verbs” are depicted with the same sememe as ‘strike,’ which is featured by semes 1 and 2. Therefore, the next step in the analysis was to determine the hypernym of the subdomain. Regarding the frequency of these lexemes (Collins

Dictionary, n.d.), their description of the action in terms of generalisation and the higher presence of the verb in other verbs' definitions, 'strike' was decided as the hypernym of the subdomain.

'Beat' corresponds to seme 4, which is characterised by repetition. Beat is described as the hypernym of the subdomain due to its frequency, because there are other verbs whose sememe are identical to 'beat,' 'knock' M1, 'thresh,' 'pummel,' 'clobber' and 'batter.' Due to the same reason, 'thrash' was identified as the hypernym of the subdomain, whose lexemes are defined by semes 4 and 7.

The subdomain of 'down' is also part of 'strike' and represents seme 5. 'Down' was selected as the hypernym of the subdomain due to its generalisation of the action of *hitting*, and the final described in the subdomain, which is 'ending on the floor.' Although 'floor' could also have been the hypernym of the subdomain, 'down' is established as more frequent in Collins Dictionary (n.d.) than 'floor.'

The next subdomain is 'brain,' which possesses seme 10. As well as previous subdomains, 'brain' was chosen as the hypernym due to its frequency. The subdomain 'flog' is featured by seme 8, which implies an instrument. In opposition to previous subdomains, 'flog' was selected as the hypernym of the subdomain due to its generalisation of the instrument employed for the action, even though 'whip' is more frequent, according to Collins Dictionary (n.d.).

The lexemes whose hypernym is 'crack' are featured by seme 7, which, in comparison to the subdomain 'thrash,' are not determined by seme 4. 'Crack' was chosen as the hypernym of the subdomain by its frequency, because the rest of the lexemes describe the same action which is to hit, making sound due to the impact. The next subdomain also describes the manner of *hitting* using the hand open (seme 9). The hypernym of this subdomain is 'slap,' even though 'cuff' is more frequently used in language (Collins Dictionary, n.d.). The reason for selecting 'slap' as the hypernym is the repetition of 'slap' in the definitions of the rest lexemes of the subdomain. As can be observed below, 'smack' and 'spat' are defined as 'slap':

- 'Smack': to strike or slap smartly, with or as if with the open hand
- 'Spat': to slap (someone)

The same criterion employed in the subdomain of ‘slap’ is utilised with ‘collide,’ since most of the lexemes that belong to this subdomain are described as ‘collide’ in many dictionaries⁶, even though ‘crash’ is established as more frequent according to Collins Dictionary (n.d.).

6. Syntagmatic analysis

Once the paradigmatic axis has been examined, the second part of the investigation of *hitting verbs* according to the Functional-Lexematic Model is the syntagmatic analysis. This section focused on studying the selected lexemes regarding three aspects, transitivity, constructions and lexical representations. Regarding transitivity, *hitting verbs* are classified into two categories which will be observed in *section 6.1*. *Section 6.2* deals with the lexical representation analysis, which focuses on the representation of *hitting verbs* following the theory explained by Van Valin & LaPolla (1997). Finally, *section 6.3* centres on the constructions that can be regarded with the selected verbs, according to Levin (1993) and Goldberg (1995).

6.1. Transitivity

This section is centred on classifying *hitting verbs* according to transitivity. After an examination of the lexemes, three types can be observed.

- The first type is **intransitive verbs**, which are featured by the lack of an object. At the beginning of the study, the hypothesis was that the verbs that presented seme 4 (the lexemes of the subdomain of ‘collide’) would be classified as intransitive. However, after the investigation, this hypothesis was refuted. The intransitive verbs observed in the selected verbs are the following:

Collide, connect, impinge, pick, shock, slam and thud.

Example:

(43) My car and her car collided. [Longman]

⁶ The Longman Dictionary of Contemporary English, n.d.; Cambridge Dictionary, n.d.; Collins Dictionary, n.d.; and, Macmillan Dictionary, n.d.

- The next type of verb present in *hitting verbs* is **transitive verbs**. Transitive verbs are characterised by demanding an object in their sentences. Most of the selected lexemes are identified as transitive. This great number of verbs could be explained by the fact that most of these verbs are structured by the person who hits, the verb and then the person who receives the action (the impact) “NP1 V NP2”:

Bastinado, beetle, belt, birch, blast, bludgeon, broadside, cane, clip, clobber, clout, club, coldcock, conk, cosh, crack, cudgel, cuff, deck, down, dump, flail, flog, floor, headbutt, hook, lambaste, larrup, paddle, paste, percuss, rear-end, sideswipe, sledgehammer, sock, spat, thrash, truncheon, uppercut, wallop, whang, and whomp.

Example:

(44) Riley punched Jack in the face.

- There are some verbs which can either be classified as **intransitive or transitive**. In this study, these lexemes are differentiated from the rest, because they are considered to be in another group, rather than locating them in both lists, transitive and intransitive verbs. Therefore, their possibilities of constructions are higher in comparison to other verbs:

Bang, bash, bat, batter, beat, bonk, box, brain, bump, clash, clunk, crash, hammer, impact, kick, knock, lash, peck, pound, pummel, punch, ram, slap, slug, smack, smash, strike, swat, swipe, thump, thwack, whack and whip.

Example:

Bang [intransitive, transitive]

(45) Stop banging on the door. [intransitive]

(46) She banged her fist on the table. [transitive] (‘her fist’ is the object)

6.2. Lexical representations

Vendler (1957) developed a classification for verb classes divided into four groups: achievements, accomplishments, activities and stative verbs. As mentioned in the theoretical framework (section 3.2.2), C. S. Smith (1991) included a fifth verb class called

‘semelfactive’. Semelfactive verbs are regarded as [-stative] [+dynamic] [+punctual]. However, even though this verb class is considered punctual, semelfactive verbs can be formulated in progressive tense. The difference is in the meaning, since whether we construct semelfactive verbs in progressive, we are referring that the punctual action occurs many times. This sense is regarded in the subdomain of ‘beat’, because the action is repeated more than once.

This section of the paper is focused on presenting the different logical structures that can be regarded in the *hitting* verbs considering the archilexeme and many hypernyms of the classification observed in *section 5.2.3*. *Hitting* verbs are highly structured by the transitive template. The following sentence is an example of the logical structure:

- (47) Mary hit Louise.
 SEML **do'** (Mary, [**hit'** (Mary, Louise)])
 SEML **do'** (x, [**pred'** (x) or (x,y)])

This template shows two variables, ‘x’ is the effector of the action, and ‘y’ is the person/object that receives the impact of the action. However, after examining the semantic and syntactic regularities between the selected verbs, three different constructions should be considered in the logical structure of *hitting* verbs. By doing so, the analysis would pay attention to the constructionist templates and lexical subsumption (Cortés, 2023). The first aspect to take into account is conative construction (analysed in *section 6.3.3*), which is commonly observed with verbs that include notions of contact and motion in their meanings -as *hitting* verbs. The verbs that are found with this construction are featured by the presence of “(...) & [BECOME **be-at'** (y, z)].” The “instrument constructional template” is also regarded in the verbs of *hitting*, since many of them can make the action by using an instrument, represented by ‘y,’ provoking the person/object that receives the action to be structured as ‘z’. The logical structure of the verbs that present this feature is preceded by “[**do'** (x, [**use'** (x, y)]) CAUSE [. . . **do'** (y, [. . .])].” Due to the lack of causative sense in the verbs of *hitting*, ‘CAUSE’ would be replaced by ‘&.’

- (48) John hits Oliver.
 (49) *Oliver causes John to hit.

Other elements to consider are the internal variables ‘ α ,’ ‘ β ’ and ‘ γ .’ Van Valin & LaPolla (1997: 117) explain the internal variables as “They are called internal variables because they are within the semantic representation of the verb, and they are variables because they represent a range of possibilities for that facet of the semantic content of the verb, (...)” Regarding the verbs of *hitting*, these internal variables are defined as follows:

- α makes reference to the person/object that makes the action (x).
- β represents the instruments utilised for performing the action (y).
- γ is the interval variable that refers to the person/object that receives the impact of the action (z).

After this analysis, the aim was to formulate a template that could include the previously mentioned aspects. Therefore, this study suggests the following template for the verbs of *hitting*:

do’ (x, [**use’** (α , β) **.in.a.manner** (x, y)]) \wedge **do’** (x, [**move’** (α , β) **.towards’** (γ) (x, z)])
& SEML **do’** (y, [**be.at’** (z, y)])

When the sentence presents an instrument for doing the action, the instrument will take the positions of ‘y’ and ‘ β .’ However, even though the rest of the verbs possess an intrinsic instrument, either the fist (such as ‘punch’ and ‘strike’), the palm (for instance, ‘slap’ and ‘cuff’), another part of the body (as in the cases of ‘brain’ and ‘kick’ among others) or tools (like a hammer, as in the verb ‘hammer’), these instruments would not be reflected on the template since they are not represented through a lexical word in the sentence, but inherent in the meaning of the verb. Therefore, the variables would stay unchanged.

This template is also modified depending on the verb, since, according to the analysis of semantic components, the selected verbs represent different manners of hitting, which is also portrayed in their logical structures through the use of concepts, such as “**very.hard**”. These representations would be examined through examples for their better understanding.

- **Strike**

The subdomain of ‘strike’ possesses the concept “**very.hard**” which refers to the sense of great force in its meaning.

(50) Paul stroke at Chris.

do' (Paul, [**use'** (Paul, β) **.in.a.manner** (Paul, y)]) \wedge **do'** (Paul, [**move'** (Paul, β) **.towards'** (Chris) (Paul, Chris)]) & **very hard'** SEML **do'** (y, [**be.at'** (Chris, y)])

- **Beat**

The subdomain of 'beat,' apart from the concept "**very.hard**" since it is part of the subdomain of 'strike,' also presents the concept "**repeated**" due to seme 4 ('to hit someone/something repeatedly').

(51) Paul beat at Chris.

do' (Paul, [**use'** (Paul, β) **.in.a.manner** (Paul, y)]) \wedge **do'** (Paul, [**move'** (Paul, β) **.towards'** (Chris) (Paul, Chris)]) & **repeated'** [**very.hard'** SEML **do'** (y, [**be.at'** (Chris, y)])]

- **Thrash**

Verbs that belong to the subdomain of 'thrash' present both concepts mentioned above, and it also includes the sense of causative, since the impact of the action produces sound.

(52) Paul thrashed at Chris.

do' (Paul, [**use'** (Paul, β) **.in.a.manner** (Paul, y)]) \wedge **do'** (Paul, [**move'** (Paul, β) **.towards'** (Chris) (Paul, Chris)]) & **repeated'** [**very.hard'** SEML **do'** (y, [**be.at'** (Chris, y)])] CAUSE INGR **sound'**

- **Crack**

The 'crack' subdomain is structured in a very similar way to the 'thrash' subdomain, except for not having the sense of repetition (**repeated'**).

(53) Paul cracked at Chris.

do' (Paul, [**use'** (Paul, β) **.in.a.manner** (Paul, y)]) \wedge **do'** (Paul, [**move'** (Paul, β) **.towards'** (Chris) (Paul, Chris)]) & SEML **do'** (y, [**be.at'** (Chris, y)]) CAUSE INGR **sound'**

- **Clip**

Verbs enclosed in the subdomain of ‘clip’ are characterised by hitting the object of the action from a side. This feature is represented in the template as “**be.on.a.side**” since the fist or another part of the body of the effector makes contact with the receiver from a side.

(54) Paul clipped at Chris (with the fist).

do' (Paul, [**use'** (Paul, β) **.in.a.manner** (Paul, y)]) \wedge **do'** (Paul, [**move'** (Paul, β) **.towards'** (Chris) (Paul, Chris)]) & SEML **do'** (y, [**be.on.a.side'** (Chris, y)])

The verbs of *hitting* can be structured with a resultative phrase (further analysis in *section 6.3.8*). This resultative phrase is commonly formed by a prepositional phrase, but it can also be constructed through an adjective (observe ‘knock’). This ‘result’ expresses the conclusion of the action, which could be a location, a change of state, etc. The following sentences portray different types of representing a resultative phrase.

(55) Paul stroke Chris to death with his fist.

do' (Paul, [**use'** (Paul, fist) **.in.a.manner'** (Paul, fist)]) \wedge **do'** (Paul, [**move'** (Paul, fist) **.towards'** (Chris) (Paul, Chris)]) & SEML **do'** (fist, [**be.at'** (Chris, fist)]) CAUSE BECOME **dead'** (Chris)

(56) Paul kicked the ball to the other room.

do' (Paul, [**use'** (Paul, β) **.in.a.manner'** (Paul, y)]) \wedge **do'** (Paul, [**move'** (Paul, β) **.towards'** (the ball) (Paul, the ball)]) & SEML **do'** (y, [**be.at'** (the ball, y)]) CAUSE BECOME **be.in'** (other room, the ball)

Nevertheless, not all the selected verbs are semelfactive. The other Aktionsart type observed was ‘achievements.’ This Aktionsart type is performed by dynamic actions that occur once, or *instantaneously*. Brinton & Brinton (2010:164) presented three statements that achievements follow according to their syntactic nature:

- “An achievement occurs at a single moment in time and answers the question “at what time?””

- “The progressive is either incompatible with an achievement (*She is recognizing a friend) or denotes the repetition of the achievement either by a singular subject (He is kicking the ball) or multiple subjects (The guests were arriving gradually).”
- “An achievement is incompatible with start and stop (*She stopped recognizing a friend); stopping and starting are themselves achievements.”

After a thorough examination, I concluded that the verbs that belong to the subdomains ‘knock’ and ‘collide’ are achievements due to the criteria described above. Moreover, achievements are also characterised by their focus on the end of the action, rather than the process of it. The action of these verbs centres on the change of state provoked by the impact of the action. Verbs of the subdomain of ‘down’ describe how the person that receives the impact ends on the floor, and verbs enclosed in the subdomain of ‘knock’ also express that the person is unconscious. Apart from them, the subdomain of ‘collide’ is also formed by achievements, because their meanings are also concentrated on the closure of the situation.

- Down

Verbs of the subdomain ‘down’ are characterised by “CAUSE BECOME **be.on**’ (floor, Chris)”, denoting that the receiver is on the floor at the end of the action.

(57) Paul downed Chris.

do’ (Paul, [**use**’ (Paul, β) **.in.a.manner** (Paul, y)]) \wedge **do**’ (Paul, [**move**’ (Paul, β) **.towards**’ (Chris) (Paul, Chris)]) & INGR **be.at**’ (Chris, β) CAUSE BECOME **be.on**’ (floor, Chris)

- Knock

Verbs that belong to the subdomain of ‘knock,’ possess the concept “**very.hard**” and present a causative sense due to the

(58) Paul knocked Chris.

do’ (Paul, [**use**’ (Paul, β) **.in.a.manner** (Paul, y)]) \wedge **do**’ (Paul, [**move**’ (Paul, β) **.towards**’ (Chris) (Paul, Chris)]) & INGR **be.at**’ (Chris, y) CAUSE **unconscious**’ (Chris)

- Collide

The verbs of the subdomain of “collide” present a totally different template, due to the “reciprocal construction” (Levin, 1993:63) (further analysis in *section 6.3.9*) which explains that the participants of these verbs occupy both roles, effector and patient. The reason is that the action executed in these verbs shows a situation in which the two participants hit each other, since both do and receive the action.

(59) Paul and Chris collided.

do' ((x \wedge y) [**move'** (α , β) **towards'** (α , β) (x \wedge y)])

6.3. Constructions

This section is centred on studying the constructions that could be observed with *hitting verbs*. The constructions that are associated with this verb class are ‘with instrument construction,’ ‘against construction,’ ‘conative construction,’ ‘body-part possessor ascension construction,’ ‘together reciprocal construction’ (transitive verbs), ‘instrument subject construction,’ ‘unintentional interpretation with reflexive object,’ ‘unintentional interpretation with body-part object’ and ‘resultative phrase.’ These constructions would be examined through different sentences retrieved from Sketchengine (n.d.), Macmillan Dictionary (n.d.), Cambridge Dictionary (n.d.) Longman Dictionary of Contemporary English (n.d.), Collins Dictionary (n.d.), Framenet (n.d.) and Levin (1993).

6.3.1. With-instrument construction

The first construction analysed in this study is the “with instrument construction.” The utilisation of an instrument for the action of *hitting* characterises verbs found with this construction. The instrument is preceded by the preposition ‘with’ forming a prepositional phrase (PP). The structure would be “NP1 V NP2 PP(P <‘with’> + NP3 <instrument>).” This construction is understood by the logical structure of verbs that possess an instrument in a sentence:

(60) Patrick hit Dylan with a stick.

do' (Patrick, [**use'** (Patrick, stick) **.in.a.manner** (Patrick, stick)]) (...)

This example shows that the instrument takes the position of ‘y,’ which is not taken as a macrorole. This decision provokes that the instrument must be located in the sentence as a prepositional phrase, preceded by the preposition ‘with.’ Some of *hitting verbs* that can be regarded with this construction are:

Bang, bash, batter, beat, bludgeon, buffet, bump, butt, clash, dash, deck, drum, hammer, hit, kick, knock, lash, pound, pummel, slap, smack, smash, strike, thrash, thump, thwack and whack.

Examples:

- (61) He was battered on the head with a cricket bat.
- (62) She says that the accused beat them with a stick.
- (63) John hammered the nail with an electric hammer. [inventado]
- (64) The school has dismissed the teacher, who is said to have thrashed pupils with sticks.

Even though this construction is rarely observed with verbs that have an intrinsic instrument in their meaning, such as ‘cane,’ ‘spur’ and ‘cudgel,’ because of redundancy, in *example 2*, the verb ‘batter’ possesses this construction. This is possible because the instrument described in the sentence is a specification of the type of ‘bat’ employed in the action. This construction is uncommon to be found with verbs that possess an intrinsic instrument in their meaning. Nevertheless, *example 3* shows the verb ‘hammer’ (‘to hit with a hammer’) with this construction. The reason is the specification of the kind of instrument utilised.

6.3.2. Against construction

This construction is featured by the preposition ‘against’ followed by the person/object that receives the action of hitting. The representation would be “NP1 V PP (P<’against’> + NP2).” Through the ‘against construction,’ the prepositional phrase expresses ‘location,’ at which the effector of the action hits, which could be either a person or an object. Some of the verbs regarded with this construction are:

Bang, bash, batter, beat, bump, butt, clunk, dash, drum, hammer, impact, hit, kick, knock, lash, pound, slam, slap, smack, smash, strike, thud, thump, thwack and whack.

Examples:

- (65) The bag was bumping against her legs.
- (66) Again the axe crashed against the door.
- (67) It impacted against the bay wall.
- (68) (...) Her spine slamming against the far wall.

6.3.3. Conative construction

The conative construction is highly found with verbs that express notions of contact and motion. As examined, the verbs of hitting present this meaning of ‘contact and motion.’

do' (x, [**move'** (α, β) **.towards'** (γ) (x, z)]) & SEML **do'** (y, [**be.at'** (z, y)])

The conative construction transforms a transitive verb into intransitive, due to the expression of the hit person/object with the preposition ‘at.’ Therefore, the construction would be changed from “NP1 V NP2” to “NP1 V PP (P<’at’> + NP2).” Moreover, this construction also provides the verb a different meaning, since the action is observed as an “attempted” action without specifying whether the action was successful or not. Some of the verbs which have been observed with this construction are:

Bang, bash, batter, beat, brain, bump, clash, dash, hammer, hit, kick, knock, lash, pound, slap, smack, smash, strap, strike, thump, thrash, thwack, whack, pummel, punch, and whip.

Examples:

- (69) People were battering at the door.
- (70) Nina managed to free herself and began beating at the flames with a pillow.
- (71) She knocked at the door, but he did not answer.
- (72) Teeth like yellow plates clashed at them.

6.3.4. Body-part possessor ascension construction

This construction occurs when a person hits a part of the body of the person who receives the impact. The transitive construction would be for example:

(73) Monica hit Peter on the back.

This example shows the body part and the possessor as two different components, presenting the possessor as an NP, while the body part appears as a PP preceded by a locative preposition ('on'). The 'body-part possessor ascension construction' groups these two different components into one simple NP, keeping the possessor as the direct object of the verb, but in the genitive form, accompanied by the body-part:

(74) Monica hit Peter's back.

These are the verbs of hitting regarded with the 'body-part possessor ascension construction':

Bang, bash, batter, beat, bump, butt, dash, drum, flog, hammer, hit, kick, knock, lash, pound, slap, smack, smash, strike, thrash, thump, thwack, whack, punch, slug, swipe, wallop and whip.

Examples:

(75) Someone whacked David on the head.

Someone whacked David's head. [Body-part possessor ascension construction]

(76) A snowball struck John on the head.

A snowball struck John's head. [Body-part possessor ascension construction]

(77) He saw that a hard, heavy fist had thumped Lucy in the stomach.

He saw that a hard, heavy fist had thumped Lucy's stomach. [Body-part possessor ascension construction]

(78) The hand promptly slapped Peter on the neck.

The hand promptly slapped Peter's neck. [Body-part possessor ascension construction]

6.3.5. Together reciprocal construction (transitive)

Hitting verbs observed with this construction are characterised by the possibility of being structured in two different ways, highlighted by the presence of the adverb 'together' in one of the frames. The transitive structure would be "NP1 V NP2 PP (P + NP3)," which would be paraphrased with this construction as "NP [NP1 'and' NP2] V together." This construction is highly found in verbs of the subdomain of 'collide.'

do' ((x \wedge y) [**move'** (α , β) .**towards'** (α , β) (x \wedge y)])

Whether only one of the variables (x,y) is considered as the actor, the other one is portrayed in the sentence as a PP, represented as "NP1<'actor'> V NP2 PP (P + NP3)." Meanwhile, when both, x and y, are taken as macroroles, the sentence would be "NP [NP1 'and' NP2] V together." This NP formed by NP1 and NP2 is linked by the conjunction 'and,' as in *example 4*. When both NPs (NP1 and NP2) are the same object/person, the NP is written in plural as in *examples 1, 2 and 3*.

Bang, beat, bump, clash, collide, connect, crash, hit, ram, smash and whip.

Examples:

- (79) He could hear a pipe chugging and banging against another pipe.
He could hear the pipes chugging and banging together. [Together reciprocal construction]
- (80) His nose bumped against her nose inelegantly.
- (81) Their noses bump together inelegantly. [Together reciprocal construction]
- (82) The blade is about to clash with another blade.
- (83) The blades are about to clash together. [Together reciprocal construction]
- (84) My car crashed into her bicycle.
My car and her bicycle crashed together. [Together reciprocal construction]

6.3.6. Instrument subject construction

This construction portrays the possibility of structuring an instrument as the subject of the sentence, utilised by the effector. Regarding the logical structure of hitting verbs (“do’ (x, [use’ (α,β) .in.a.manner’ (x, y)]) ∧ do’ (x, [move’ (α,β) .towards’ (γ) (x, z)]) & SEML do’ (y, [be.at’ (z, y)])”), the principle of logical structures explains that when there are more than one arguments of “do’” (“do’ (X, [use’ (α,β) .in.a.manner’ (x, y)])” and “SEML do’ (Y, [be.at’ (z, y)])”), the argument of the first do’ (x) has priority over the other arguments of do’, in this case ‘y’, to be considered as the actor of the action. These are some *hitting* verbs that have been found with this construction:

Beat, hit, pound, slam, smash, strike, thump and whack.

Examples:

- (85) She whacked the ball with a tennis racket.
The tennis racket whacked the ball. [Instrument subject construction]
- (86) They smashed the window with a rock.
The rock smashed the window. [Instrument subject construction]
- (87) He thumped something soft in the darkness with his foot.
His foot thumped against something soft in the darkness. [Instrument subject construction]
- (88) He struck it with his leg, he slipped and fell to his death.
His leg struck it, he slipped and fell to his death. [Instrument subject construction]

6.3.7. Unintentional Interpretation of Object

The ‘unintentional interpretation of object’ is divided into two constructions, ‘unintentional interpretation with reflexive object’ and ‘intentional interpretation with body-part object.’ These constructions are featured by an unintentional sense of the action, which signifies that the action is unintentionally done by the effector, who is considered as an experiencer or even a patient of the action, due to this sense of involuntary action.

In the “unintentional interpretation with reflexive object construction,” the whole effector is implied as the object of the action, and its representation as the experiencer is portrayed as “himself/herself/themselves,” while in the “unintentional interpretation with body-part object construction,” as the name suggests, only a part of the body is implied as the object of the action, even though the experiencer as a whole continues being the patient.

The “unintentional interpretation with body-part object construction” is characterised by the structure in a sentence as: a possessive determinant + the part of the body that receives the action. For example, her foot, his leg, their backs, etc.

- **Unintentional Interpretation with Reflexive Object**

Bang, bash, batter, bump, hit, kick, knock, pound, slap, smack, strike and whack.

Examples:

- (89) Thisbe, who, ironically, has practised how to expertly pretend to knock himself.
- (90) It's not like he would do things, have it trumpeted, pound himself on the chest.
- (91) It is not a rare event to see a shooter punch himself or herself in the mouth.
- (92) In future, before you order me or any other woman to "slap herself" or anyone else, you might consider checking first.

- **Unintentional Interpretation with Body-Part Object**

Bang, bash, batter, bump, crack, hit, kick, knock, strike, thump and whack.

Examples:

- (93) Paula hit her elbow on the doorknob.
- (94) She knocked her head on a stone.
- (95) She bumped her arm on the table.
- (96) He cracked his head on the pavement and was knocked cold.

6.3.8. Resultative Construction

The resultative construction is formed by an XP that expresses a change in the hit person/object caused by the impact received from the person that hits. This construction was analysed in *section 6.2*:

- (97) Paul hit Chris to death
 (...) CAUSE BECOME **dead**' (Chris)

Therefore, this construction shows the final result of the whole situation described in the sentence, referring to what happens after the action of hitting. The following verbs are some of the lexemes regarded with the resultative construction:

Batter, beat, bludgeon, club, flog, hammer, hit and *thud*.

Examples:

- (98) He was battered unconscious.
 (99) They were beaten to death with baseball bats.
 (100) He kicked the ball to the other room.
 (101) John was flogged to death.

As can be observed in the examples, the resultative phrase provides a specification of a change of state in the object/person that has received the impact. In examples 1, 2 and 4 there is a change of state since the person who has been hit is unconscious or dead; and example 3 shows a change of state in terms of location. This construction can be observed as the result of the hitting action.

6.3.9. Simple Reciprocal construction (intransitive)

This construction is not represented as one of the alternations of *hitting* verbs provided by Levin (1993), because Levin does not include the subdomain 'collide' (which is found in this construction) as part of *hitting* verbs. The verbs found in this construction are characterised by changing the frame 'NP 1 V PP (P+NP2]' to 'NP(NP 1 and NP2) V'. This construction is explained by the selection of the marcoroles, because whether 'x' and 'y' are

taken as macroroles, the frame would be 'NP(NP 1 and NP2) V '. However, selecting only one of these variables as a macrorole, the frame would be represented as 'NP 1 V PP (P+NP2)'].

do' ((x \wedge y) [**move'** (α , β) **.towards'** (α , β) (x \wedge y)])

Some verbs observed with this construction are:

Bump, clash, collide, ram, shock and slam.

(102) Mary collided with Peter

Mary and Peter collided

7. Conclusions

The main goal of this paper has been to determine which verbs are encoded in the verbs of *hitting*, and analyse them regarding their semantic and syntactic features, through the Functional-Lexematic Model explained by Faber & Mairal (1999).

Throughout this investigation, the principal limitation has been caused by dictionaries. The main challenge observed in dictionaries is the lack of agreement between them, since their definitions for verbs were sometimes totally different, which provoked a complication for the understanding of the verbs, and therefore their analysis. Another limitation carried out by dictionaries was the amount of information about verbs, because there were verbs defined by another verb without the possibility of examining them contrasting different points of view. This situation caused an insufficiency in the analysis, since the verbs were understood in this paper literally as described in the entries of the dictionaries.

Regarding the corpus selection, the selected sources included many verbs that for this study do not express a manner of hitting, but throwing, or pushing. On the other hand, the classification of Levin (1993, p. 148-153) is based on a syntagmatic perspective, leaving on a side the semantic components and lexical relations of the verbs. This provokes that the classification of the verbs of 'contact-by-impact' is divided into three verbal groups '*hit* verbs,' '*swat* verbs' and '*spank* verbs.' However, the three groups were considered for the corpus selection, since for this study, they represent different manners of hitting and thus, they should be included in one single group. After analysing the selected verbs according to their semantic and syntactic characteristics, it has been proved that some of these verbs described as '*swat* verbs' and the vast majority of '*spank* verbs' could be classified as *hitting*

verbs, because their analysis show that they possess the core-meaning established for this paper.

At first sight, the verbs of *hitting* could be all considered semelfactives. Nevertheless, through the analysis of logical structures in *section 6.2*, we concluded that not all the selected verbs are semelfactives, since the subdomains of ‘knock’ and ‘collide’ are achievements, due to their focus on the end of the action.

Most selected verbs are transitive, something that was expected since the beginning of the study. However, it was interesting to know that many other verbs presented the possibility of being structured in both forms, transitive and intransitive. This diversity gives the verbs a wider range of structures in sentences, which have been also exposed in this study through the constructions analysed in *section 6.3*. “With-instrument construction” and “conative constructions”- among others- have also demonstrated that semantics and syntax are interconnected.

Another conclusion observed from the lexical analysis of the selected verbs was the presence of polysemy. Some of these verbs describe different manners of *hitting*, but their different meanings are all enclosed in the subdomain of “strike.” However, there is another group of verbs that also present polysemy, but with a higher differentiation in their meanings, because meaning 1 of these verbs is located in the subdomain of “strike”, while meaning 2 belongs to the subdomain “collide”. For this study, these two subdomains present many differences in terms of semantic and syntactic features, but both possess the core meaning. Therefore, even though the selected verbs possess different characteristics regarding both, paradigmatic and syntagmatic analysis, they represent manners of *hitting*, which permits them to be enclosed in one coherent verbal group, as they all possess seme 1 (‘to touch someone/something hard’).

To sum up, this functional-lexematic analysis of *hitting* verbs has proved that whether we would have examined these verbs from a purely syntagmatic or paradigmatic approach, the results, and therefore the study, would be incomplete since many crucial aspects would have been left out, such as their meanings, their behaviours in different contexts, the analysis of their various constructions, and their possibility to be associated in one single verbal group.

8. References

- Briton & Briton. (2010). *The Linguistic Structure of Modern English*. John Benjamins Publishing Company.
- Cambridge Dictionaries Online. (n.d.). Retrieved March-May 2023, from <http://dictionary.cambridge.org/>
- Collins English Dictionary. (n.d.). Retrieved March-May 2023, from <http://www.collinsdictionary.com/dictionary/english>
- Deng, Y. and Li, F.T. (2023). “Event Segmentation and Causation: The Case of Mandarin Causal-Chain Motion*.” *Studia Linguist.* <https://doi.org/10.1111/stul.12211>
- Dik, S. (1978). *Stepwise lexical decomposition*. The Peter de Ridder Press.
- Faber, P. and Mairal, R. (1999). *Constructing a lexicon of English verbs*. Berlin: Mouton de Gruyter.
- Fasold, R. & Connor-Linton, J. (2006). *An Introduction to Language and Linguistics*. Cambridge University Press.
- FrameNet. (n.d.). Retrieved March 2023, from: https://framenet.icsi.berkeley.edu/fndrupal/framenet_search
- Geckeler, H. (1976). *Semántica estructural y teoría del campo léxico*. Editorial Gredos.
- Goldberg, A. (1995). *Constructions. A construction grammar approach to argument structure*. Chicago: The University of Chicago Press.
- Hilpert, M. (2014). *Construction grammar and its application to English*. Edinburgh University Press.

- Levin, B. (1993). *English verbs classes and alternations. A preliminary investigation*. Chicago: The University of Chicago Press.
- Longman Dictionary of Contemporary English. (n.d.). Retrieved March-May 2023, from <https://www.ldoceonline.com/>
- Löbner, S. (2002). *Understanding Semantics*. UK: Hodder Education.
- Macmillan Dictionary. (n.d.). Retrieved from March-May 2023, <https://www.macmillandictionary.com/>
- Moser, A. (2014). Aspect and Aktionsart: A Study on the Nature of Grammatical Categories. *Major Trends in Theoretical and Applied Linguistics 1* (pp. 99-120). Versita Ltd, 78 York Street, London W1H 1DP, Great Britain.: De Gruyter Open Poland. <https://doi.org/10.2478/9788376560762.p14>
- Ojanguren López, A. E. (2019). “THE LEXICAL REPRESENTATION OF ENGLISH VERBS OF ACTION. COMPLEX PREDICATES AND STRUCTURES”. *Revista de Lingüística y Lenguas Aplicadas*, 14, 131-140. <https://riunet.upv.es/bitstream/handle/10251/123902/11080-48057-2-PB.pdf?sequence=4>
- Riemer, N. (2010). *Introducing semantics*. New York: Cambridge University Press.
- Saeed, J. (2003). *Semantics* (2nd ed.). Oxford, England: Wiley & Blackwell.
- Saeed, J. (2009). *Semantics* (3rd ed.). Oxford, England: Wiley & Blackwell.
- Thesaurus.com. (n.d.). In *Thesaurus online*. Retrieved March 2023, from <https://www.thesaurus.com/>

Van Valin, R. D., & LaPolla, R. J. (1997). *Syntax: Structure, meaning and function*. Cambridge University Press.

Vendler, Z. (1957). Verbs and Times. *The Philosophical Review*, 66(2), 143–160.
<https://doi.org/10.2307/2182371>

WordNet. (n.d.). Retrieved March-May 2023, from <https://wordnet.princeton.edu/>

WordReference.com: Online Language Dictionaries. (n.d.). Retrieved March-May 2023, from <http://www.wordreference.com/es/>

9. Appendix

9.1. Definitions of selected verbs

B

- **Bang**

[LDOCE] To hit something hard, making a loud noise.

[LDOCE] To hit a part of your body, or something you are carrying, against something by accident.

- **Bash**

[COD] To strike violently or crushingly.

[COD] To crash (into); collide (with).

- **Bastinado**

[COD] To beat with a stick, cane, etc., esp. on the soles of the feet or on the buttocks.

- **Bat**

[MCD] To hit the ball with a bat in a game such as baseball or cricket.

- **Batter**

[LDOCE] to hit someone or something many times, in a way that hurts or damages them.

- **Beat**

[LDOCE] to hit someone or something many times with your hand, a stick etc.

- **Beetle**

[COD] to beat or pound with a beetle.

- **Belt**

[COD] to hit with a belt.

- **Birch**

[COD] to beat/flog with a birch.

- **Blast**

[LDOCE] to hit or kick a ball very hard

- **Bludgeon**

[COD] to strike with or as with a bludgeon.

- **Bonk**

[LDOCE] to hit someone on the head or to hit your head on something.

- **Brain**

[CAMD] to hit someone on the head.

- **Broadside**

[CAMD] to hit something on one of its longer sides.

- **Buffet**

[COD] to hit, esp with the fist.

- **Bump**

[LDOCE] to hit or knock against something.

C

- **Cane**

[COD] to whip or beat with or as if with a cane.

- **Clash**

[COD] to collide or strike together with a loud, harsh, metallic noise.

- **Clip**

[LDOCE] to hit something quickly at an angle.

- **Clobber**

[MCD] to hit someone very hard.

- **Clout**

[COD] to give a hard blow to, esp with the hand.

- **Club**

[COD] to beat with or as if with a club.

- **Clunk**
[COD] to hit hard, esp. on the head.
 - **Coldcock**
[COD] to knock (a person) to the ground.
 - **Collide**
[LDOCE] to hit something or someone that is moving in a different direction from you.
 - **Conk**
[LDOCE] to hit someone hard, especially on the head.
 - **Connect**
[COD] to hit successfully or solidly.
 - **Cosh**
[COD] to hit with such a weapon, esp on the head.
 - **Crack**
[COD] to hit with a forceful or resounding blow.
 - **Crash**
[LDOCE] to hit something or someone extremely hard while moving, in a way that causes a lot of damage.
 - **Cudgel**
[COD] to strike with a cudgel or similar weapon
 - **Cuff**
[MCD] to hit someone with your open hand, usually on the head
- D
- **Dash**
[COD] to strike with violence.
 - **Deck**

[COD] to knock (a person) to the floor or ground.

- **Down**

[COD] to knock, push, or pull down.

- **Dump**

[COD] to knock down.

F

- **Flail**

[LDOCE] to beat someone or something violently, usually with a stick.

- **Flog**

[MCD] to hit someone very hard with a stick or whip as a punishment.

- **Floor**

[COD] to knock to the floor or ground.

H

- **Hammer**

[COD] to strike or beat (a nail, wood, etc) with or as if with a hammer.

- **Headbutt**

[COD] to deliberately strike (someone) with the head.

- **Hit**

[CAMD] to move your hand or an object onto the surface of something so that it touches it, usually with force.

- **Hook**

[COD] to hit (an opponent) with a hook.

I

- **Impact**

[COD] to collide with.

- **Impinge**

[COD] to collide (with)

K

- **Kick**

[COD] to hit with the foot or feet.

- **Knock**

[COD] to collide (with).

[COD] to strike a blow or blows with the fist or some hard object.

[MCD] to hit someone very hard, so that they fall or become unconscious.

L

- **Lambaste**

[COD] to beat soundly; thrash.

- **Larrup**

[COD] to whip; flog; beat.

- **Lash**

[COD] to hit (a person or thing) sharply with a whip, rope, etc, esp as a punishment.

- **Lather**

[COD] to flog soundly.

P

- **Paddle**

[LDOCE] to hit a child with a piece of wood as a punishment.

- **Paste**

[COD] to hit, esp with the fists; beat soundly

- **Peck**

[COD] to strike with the beak or with a pointed instrument.

- **Pick**

[COD] to strike with or use a pick or other pointed instrument on something.

- **Pound**

[LDOCE] to hit something very hard several times and make a lot of noise, damage it, break it into smaller pieces etc.

- **Pummel**

[CAMD] to hit someone or something repeatedly, especially with your fists (= closed hands).

- **Punch**

[MCD] to hit someone or something with your fist (=closed hand), usually as hard as you can.

R

- **Ram**

[COD] to crash with force against (another object) or (of two moving objects) to collide in this way.

- **Rear-end**

[COD] to crash into (another vehicle) from behind.

S

- **Shock**

[COD] to strike against violently.

- **Sideswipe**

[COD] to strike (someone) with such a blow.

- **Slam**

[MCD] to move against something with great force.

- **Slap**

[LDOCED] to hit someone with the flat part of your hand.

- **Sledgehammer**

[COD] with or as if with a sledgehammer.

- **Slug**

[COD] to hit very hard and solidly, as in boxing.

- **Smack**

[LDOCED] to hit someone, especially a child, with your open hand in order to punish them.

- **Smash**

[COD] to hit forcefully and suddenly.

[COD] to collide violently; crash.

- **Sock**

[LDOCED] to hit someone very hard, especially with your hand closed.

- **Spat**

[COD] to slap (someone).

- **Spur**

[COD] to strike or prick with a spur or spurs.

- **Strap**

[COD] to beat with a strap.

- **Strike**

[MCD] to hit someone or something with your hand, a tool, or a weapon.

- **Swat**

[MCD] to hit something, especially an insect, with your hand or with a flat object.

- **Swipe**

[COD] to hit hard with a sweeping blow.

T

- **Thrash**

[COD] to beat soundly, as with a whip or stick.

- **Thresh**
[COD] to beat or strike.
- **Thud**
[LDOCED] to hit something with a low sound.
- **Thump**
[COD] to strike or beat heavily; pound.
- **Thwack**
[COD] to beat, hit, or flog, esp with something flat.
- **Truncheon**
[COD] to beat with a truncheon.

U

- **Uppercut**
[COD] to hit (an opponent) with an uppercut.

W

- **Wallop**
[MCD] to hit someone or something very hard.
- **Whack**
[MCD] to hit someone or something with a lot of force.
- **Whang**
[COD] to strike or be struck so as to cause a resounding noise.
- **Whip**
[COD] to strike (a person or thing) with several strokes of a strap, rod, etc.
- **Whomp**
[COD] to hit or strike heavily and loudly; thump.

9.2. Constructions of selected verbs

- **With-instrument Construction**

- He beat the rug with a stick to remove the dust.
 - Ignoring him, guy let the impetus of his powerful swing carry the blade onward to clash violently with the sword of the third soldier.
 - They pounded the door with their fists to get attention.
 - Once the dough has doubled, punch down the dough with oiled hands.
 - To strike (a hard surface) with a series of rapid audible blows.
 - The boxer struck the opponent with a powerful punch.
 - She whacked the ball with a tennis racket.
 - He was battered on the head with a cricket bat.
 - Nina managed to free herself and began beating at the flames with a pillow.
 - She says that the accused beat them with a stick.
 - He decked his opponent with a single punch.
 - Thisbe, who, ironically, has practised how to expertly pretend to knock himself on the head with a club without actually hitting himself.
 - They smashed the window with a rock.
 - The victim had been struck with some kind of wooden implement.
 - He struck at the dog with his stick.
 - The school has dismissed the teacher, who is said to have thrashed pupils with sticks.
 - He gave the donkey a whack across the back with his stick.
 - You could whip him with a stick.
- **Against Construction**
 - Her head banged against the surface.
 - The bag was bumping against her legs as she turned into Corporation Lane.
 - Again the axe crashed against the door.
 - The rain was hammering against the window.
 - The executive transporter boomed like a giant bell as it impacted against the bay wall.
 - Then she was being thrown violently up and backwards, her spine slamming against the far wall.
 - Down in the channel they could hear the water slapping against the greasy mud walls.
 - Latex smacked lustily against solid flesh.

- Whatever the reason, Toks' tighthead failed to get down and his head smashed against his opposition's shoulder.
- The bird had thudded against the wallpaper.
- His foot thumped against something soft in the darkness.
- There was dead silence but for a fly beating against the glass.
- I ran after him, bumping against people in my hurry.
- My right toe struck against a submerged rock.
- His head was smashing against the chipped sink

- **Conative Construction**

- He struck at the dog with his stick.
- He brained at you to the death.
- Teeth like yellow plates clashed at them.
- Daniella hammered at the door.
- They rapped vigorously at the furniture to get the dust-out.
- I listen to the waves loosely slapping at the side of the stilled ship.
- People were battering at the door.
- Nina managed to free herself and began beating at the flames with a pillow.
- She was knocking at the door.
- A tentacle slithered across his leg from him; he twitched away, turning to slap at it—nothing was there.
- His alarm clock beside his bed rang and a hand shot out from beneath his bedding to slap at the snooze button.
- The wind began to whip at us as we hiked toward the summit.

- **Together Reciprocal Construction (transitive)**

- He could hear the pipes chugging and banging together.
- Aragorn makes a wish, then, in that moment, as Faramir's tongue twists around his own and their noses bump together inelegantly.
- The combatant turns the blade off just as the blades are about to clash together.
- High in the cavern, Toph swats aside the first two agents, then leaps to avoid the two columns as they crash together beneath her.

- Cornette talks about how the midget blew it because he hugged Jackie, which is traditionally the signal for the face to ram their heads together.

- **Instrument Subject Construction**

- He beat the rug with a stick to remove the dust.
The stick beat the rug, removing the dust.
- They pounded the door with their fists to get attention.
Their fists pounded the door, getting attention.
- Suddenly a hand slapped his shoulder
Her hands slapped the wall, like someone drumming a loose rhythm on a tom-tom.
- He struck him with his leg, he slipped and fell to his death.
His leg struck him, he slipped and fell to his death.
- He thumped against something soft in the darkness with his foot.
His foot thumped against something soft in the darkness.
- She whacked the ball with a tennis racket.
The tennis racket whacked the ball.
- They smashed the window with a rock.
The rock smashed the window.

- **Body-Part Possessor Ascension Construction**

- The hand promptly slapped Clara on the neck.
The hand promptly slapped Clara's neck.
- She had seen the stone fall and strike Dean on the side of his head.
She had seen the stone fall and strike Dean's side of his head.
- Pauline saw that something thumped Peter in the stomach.
Pauline saw that something thumped Peter's stomach.
- A snowball struck Ricky on the head.
A snowball struck Ricky's head.
- Someone whacked Alec on the head.
Someone whacked Alec's head.
- He punched Anton on the back.
He punched Anton's back.

- **Unintentional Interpretation with Reflexive Object Construction**

- Thisbe, who, ironically, has practised how to expertly pretend to knock himself on the head with a club without actually hitting himself.
- The House of Representatives and the state Senate, said, "It's not like he would do things, have it trumpeted, pound himself on the chest. He just did the work."
- It is not a rare event to see a shooter punch himself or herself in the mouth using this method when under stress.
- In future, before you order me or any other woman to "slap herself" or anyone else, you might consider checking first.
- However, Calvillo can strike herself as well as absorb damage.
- Once I had copied the rhythm, don Juan ceased to thump himself but had me continue, marking the pace with a movement of his hand.
- However, it's not impossible for a head of a government body to wake up one morning, smack himself on the forehead, and say "My goodness! This law they've given me to enforce is unconstitutional!"

- **Unintentional Interpretation with Body-Part Object Construction**

- She knocked her head on a stone.
- She'd fainted and banged her head.
- Paula hit her elbow on the doorknob.
- She bumped her arm on the table.
- He cracked his head on the pavement and was knocked cold.

- **Resultative Construction**

- He brained at you to the death.
- Pauline hammered the metal flat.
- He was battered unconscious.
- The silversmith pounded the metal flat.
- A karate expert battered a man to death.
- The teenage boy had been clubbed to death.
- They were beaten to death with baseball bats.

- He was bludgeoned to death with a hammer.
- The girl had been beaten to death.
- He was hit to death.