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Discourse constructions in English: meaning, form and hierarchies. A study from the point of view of the Lexical Constructional Model
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Discourse Constructions in English: Meaning, Form and Hierarchies

A study from the point of view of the Lexical Constructional Model

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Resumen

Esta tesis se enmarca dentro de los últimos avances del Modelo Léxico Construccional (MLC) desarrollado por los profesores Ruiz de Mendoza y Mairal (MLC; Ruiz de Mendoza y Mairal 2008, 2011; Mairal y Ruiz de Mendoza 2008, 2009). La tesis implica el desarrollo del nivel discursivo de dicho modelo desde la Gramática Construccional y enfatiza el papel de las construcciones discursivas en la construcción del significado.

Para ello, el estudio identifica tres familias construccionales: (i) de alternancia complementaria (i.e. Neither X nor Y, X even Y, Not X even less Y, X let alone Y, X not to mention Y, etc.), (ii) de contraste complementario (i.e. X nevertheless Y, X on the other hand Y, X is more M tan N, X while Y, etc.); y (iii) de contraste (i.e. Either X or Y, X as against Y, X unlike Y, X contrary to Y, etc.). Una vez identificadas las familias, las construcciones que las forman se sub-clasifican en base a las nociones de perfil, base y zona activa de Langacker (1987, 1999). Estas nociones nos permiten especificar las condiciones por las que un conector o marcador discursivo es preferible frente a otros en un contexto dado, probando así que no existen dos construcciones semánticamente idénticas. Esta nueva metodología de análisis revela también las conexiones existentes entre las construcciones de alternancia complementaria, contraste complementario y contraste puro, las cuales forman parte de un mismo continuo de contraste.

Esta investigación implica un importante avance en la clasificación cognitiva de las construcciones discursivas y supone además una gran mejora en el análisis del discurso, ya que se trata del primer trabajo que explica las sutilezas de significado entre distintos marcadores discursivos que son frecuentemente tratados como

sinónimos. Asimismo, es la primera contribución a la creación de un Constructicón a nivel discursivo consistente con los mecanismos descriptivos y explicativos del MLC.

De manera complementaria, la tesis también aborda la posible representación computacional de las construcciones analizadas. Dicha representación se lleva a cabo a través de FunGramKB, una base de conocimiento lexico-conceptual para el procesamiento del lenguaje natural (PLN) (cf. Periñán y Arcas 2004, 2007ab, 2010ab; Periñán y Mairal 2010, entre otros). Para ello, las descripciones lingüísticas de cada construcción han sido transcritas al lenguaje COREL, el metalenguaje utilizado para la representación conceptual y construccional en FunGramKB. La tesis ofrece así una visión preliminar de cómo las construcciones discursivas serían tratadas computacionalmente, describiendo las dificultades del proceso y ofreciendo sugerencias a futuros investigadores interesados en el desarrollo computacional del conocimiento semántico, pragmático y del discurso.

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This thesis is dedicated to my beloved parents, who have always loved me unconditionally and to whom I owe all my achievements. For all the moral support and the amazing chances you have given me over the years,

Bihotz-bihotzetik, esker aunitz.

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List of abbreviations

ARTEMIS   Automatically Representing Text Meaning via an Interlingua-based System

BCxG   Berkeley Construction Grammar

BYU-BNC   British National Corpus

CaG   Case Grammar

CCD   Collins Cobuild Dictionary

CDO   Cambridge Dictionary Online

CLS   Conceptual Logical Structure

COCA   Corpus of Contemporary American English

COREL   Conceptual Representation Language

CxG   Construction Grammar

ECG   Embodied Construction Grammar

FCG   Fluid Construction Grammar

FG   Functional Grammar

FunGramKB   Functional Grammar Knowledge Base

ICM   Idealized Cognitive Model

LCM   Lexical Constructional Model

MWO   Merriam Webster Dictionary Online

NLP	Natural Language Processing
NP	Noun Phrase
ODO	Oxford Dictionary Online
RCG	Radical Construction Grammar
RRG	Role and Reference Grammar
RST	Rhetorical Structure Theory
SFG	Systemic Functional Grammar
WR	Wordreference.com dictionary

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Introduction

This dissertation is framed within the latest developments of the Lexical Constructional Model (henceforth, LCM), developed by professors Ruiz de Mendoza and Mairal (Mairal Usón & Ruiz De Mendoza Ibáñez, 2009; Ruiz De Mendoza Ibáñez & Mairal Usón, 2007, 2008, 2011) as well as its computational implementation by means of the FunGramKB knowledge base (Mairal Usón & Periñan Pascual, 2010a, 2010b, 2014; Mairal Usón, Ruiz De Mendoza Ibáñez, & Periñán Pascual, 2011; Periñán Pascual & Arcas-Túnez, 2005, 2007, 2010b, 2011, 2014a, 2014b, Periñán Pascual & Mairal Usón, 2011). More specifically, this dissertation involves the development of the discourse level of the LCM, which has so far only been approached in a programmatic way, and, in a complementary fashion, it deals with the computational implementation requirements on constructional description for discourse structure.

The LCM is defined as a usage-based, explanatorily adequate model for the investigation of meaning construction at all levels of linguistic description -including pragmatics and discourse- that reconciles insights from functional and cognitively-oriented constructions perspectives (Mairal Usón & Ruiz De Mendoza Ibáñez, 2009; Ruiz De Mendoza Ibáñez, 2013; Ruiz De Mendoza Ibáñez & Galera Masegosa, 2014; Ruiz De Mendoza Ibáñez & Mairal Usón, 2008, 2011). It distinguishes four levels of linguistic organization: level 1 (argumental), level 2 (pragmatic-implicational), level 3 (illocutive) and level 4 (discursive), and offers theoretical and methodological tools that, in compliance with the Principle of Equipollence, can be applied to the four levels of description mentioned above.

The LCM differs from other constructionist models in its formulation of an inventory of internal and external constraints that allow to explain the interaction between lexical and constructional configurations at whatever descriptive level (Mairal & Ruiz de Mendoza, 2009): Internal constraints establish compatibility criteria between lexical predicates and grammatical constructions, based on the logical structure and the semantic-pragmatic nature of both, whereas external constraints refer to high level metaphor and metonymies that allow potential changes in the global category ascription of a lexical item to be subsumed into a construction.

Other key features of this model that make it more suitable than other constructional approaches for the purpose of this investigation include:

(a) Its ability to see structure in terms of its function, like functionalist approaches to language, while searching for such motivation in the domain of communicative activity and in the domain of cognition.

(b) Its understanding of the notion of construction as ranging from argument structure characterizations via implicational and illocutionary representations to discourse structure. The LCM further defines a construction not only as a form-meaning paring, as Goldberg (1995, 2006) does, but, in a more refined way, as a conceptually entrenched (i.e. frequent and straightforwardly replicable) form-meaning association where form is realizational of conceptual representation in any degree of complexity (cf. Ruiz De Mendoza Ibáñez, 2013, p. 238).

(c) The admission that more often than not, constructions come in families of related conceptual configurations that offer speakers a gamut of meaning choices.

Among the objectives of the LCM is also the computational implementation of the results obtained on the meaning construction processes at the four levels of linguistic description. This implementation is carried out through FunGramKB, a multipurpose lexico-conceptual knowledge base for natural language processing systems (Mairal Usón, 2015). This knowledge base incorporates two independent but interrelated levels of representation: A first level of conceptual nature that includes an *Ontology* (semantic knowledge), a *Cognicon* (procedural knowledge) and an *Onomasticon* (episodic knowledge); and a second level of linguistic nature that incorporates a *Lexicon* (which stores morphosyntactic, pragmatic and collocational information of words), a *Morphicon* (morphological information) and a *Grammaticon* (information on families of constructions) (Mairal, 2015).

The work carried out to date by the researchers working within the LCM has involved great advances in the description of the constructional phenomena in the argument-structure (Gonzálvez-García, 2008, 2009a, 2009b; Peña Cervel, 2009; Pérez-Hernández, 2013; Ruiz De Mendoza Ibáñez & Luzondo Oyón, 2012),

implicational (Galera & Ruiz de Mendoza, 2012) and illocutionary levels (Pérez-Hernández, 2009; Pérez-Hernández & Peña, 2009; Pérez-Hernández & Ruiz de Mendoza, 2011). Significant progress has also been made in the area of building hierarchies and constructional families. The work of Gonzálvez-García (2011) and Ruiz de Mendoza and González-García (2011) has also culminated in a detailed inventory of subjective-transitive sub-constructions together with their inherent relationships in contemporary English and Spanish.

However, on the current research stage, it is necessary to extend these advancements to the implicational and discourse constructions (Level 4), on which there is only a preliminary work published by Galera Masegosa (2011). Also, a satisfactory system of representation of idiomatic constructions at all levels (including the discursive level) is still pending.

On the other hand, over the last three decades, the amount of literature on discourse makers –especially on those related to contrast, temporal and causal relations- has been especially remarkable due to the proliferation of many different approaches to the study of discourse that offer a variety of discourse-relation taxonomies (Blakemore, 2002; Fraser, 2006; Hobbs, 1979; Knott & Sanders, 1998; Mann & Thompson, 1988; McKeown, 1985; Schiffrin, 1987; Taboada & Gómez-González, 2012). However, little emphasis has been made on the semantic connections between these markers, or on how coherence relations and their linguistic marking affect the cognitive representation of discourse.

In addition, the cognitive-linguistic literature on discourse constructions is very limited and in serious need of exhaustive exploration. So far, the application of the notion of *construction* has in the main been restricted to argument structure and

illocutionary constructions, without considering the possibility of applying it at discourse level. An exception is provided by Fillmore et al. (1988), who offer a detailed analysis of the *Let Alone* construction, but without considering its discourse dimension. The treatment in the LCM of the same construction (e.g. Mairal & Ruiz de Mendoza, 2009; Ruiz de Mendoza & Gómez-González, 2014) is programmatic too, and simply limited to inserting the construction within a broad typological framework of discourse constructions. It goes without saying that there is not as yet any systematic account of constructions at discourse level.

In the face of these descriptive and explanatory needs, this dissertation is intended to fill in some of the gaps mentioned above, its ultimate aim being to prove that the examination of discourse connectors from a constructionist perspective, besides allowing for a systematic fine-grained analysis, results in a better understanding of discourse phenomena in general. In order to meet this goal, this study identifies and groups a subset of *complementary alternation, complementary contrastive* and *contrast* constructions based on family resemblance relations (in Wittgenstein, 2001 use of the term; c.f. Taylor, 1995 for its application to linguistics) and on the application of the Langackerian notions of profile/base relations and the selection of active zones within profiled concepts (cf. Langacker, 1987, 1999).

This thesis is the result of quite a lot of manual work on a large corpus of analysis compiled for the identification of all the meanings that a given construction can profile. It has also demanded fine-grained analysis of discourse phenomena that have not been dealt with within Cognitive Linguistics or its associated accounts, including the LCM. And last, but not least, discourse constructions have never been treated computationally before.

This refined categorization of discourse constructions will explain how different segments of discourse are logically related to one another[2], and spell out the subtleties of meaning between constructions that might be erroneously used as synonyms. Moreover, it will bring to the fore certain configurations not taken into account in previous studies on discourse relations. Therefore, although this classification may well need to be complemented with further insights from other perspectives, this dissertation represents a step forward in the direction of a cognitive classification of discourse constructions. In the following lines we examine in detail the structure of the rest of this dissertation.

Chapter 2 (*From discourse markers to constructionism in discourse*) starts by providing the reader with a brief overview on the main proposals on discourse markers, to then argue that a Construction Grammar framework provides, in our view, a better solution for the analysis of discourse phenomena, since it can integrate the insights of frame semantics into grammatical theory. We continue introducing the reader to the most significant Construction Grammar perspectives to language, defending the descriptive and explanatory superiority of the LCM over the rest of approaches. The chapter finishes by explaining the notion of *family resemblance* to account for the relations between apparently dissimilar discourse constructions that can be grouped within the same category.

Chapter 3 (*Research methodology*) addresses the methodological considerations. The first part of the chapter describes the different kinds of corpora from which we have drawn the data of analysis. There follows a brief explanation of

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[2]This dissertation deals with constructions extra-propositionally, leaving intra-propositional constructions for the study of other levels of linguistic description, like lexical characterization or argument-predicate relations.

the application of the Langackerian notions of profile/base relations and the selection of active zones within profiled concepts (cf. Langacker, 1987, 1999) to the classification of constructions at discourse level. We argue that such constructs are applicable not only to lexical structure, but also to other kinds of conceptual structure including discourse relations. We have chosen to include Langacker's notions in this methodology section (and not in chapter 2, concerned with the theoretical background) because this dissertation is not based on Langacker's grammar, but uses some of its postulates as methodological tools that help offering a satisfying classification. Finally, we describe the steps taken in the analysis and treatment of the data throughout the research.

These first chapters leave the ground prepared for the presentation of the results in the following sections. For ease of reading, chapters 4, 5, and 6 follow a similar structure.

Chapter 4 (*Complementary alternation constructions*) presents the main findings regarding the complementary alternation constructional family. This chapter begins by defining the notion of *complementary alternation* as a basic discourse relation, and discusses the way in which constructions exploit such a relation. Then, it offers a brief description of this subgroup of constructions and a detailed analysis of each of the configurations that constitute this constructional family.

Chapter 5 (*Complementary contrastive constructions*) examines the essential features of the family of *complementary contrastive* discourse constructions in English. We first define these configurations in comparison to contrast and additive constructions. Then, we offer a preliminary classification of these configurations to

continue exploring in different subsections each of the subgroups of constructions that comprise this constructional family, describing all the constructions in detail.

Chapter 6 (*Contrast constructions*) offers a brief description of the four subgroups of constructions that constitute the contrast family of constructions together with a detailed analysis of its configurations.

Chapter 7 (*Representation of discourse constructions in FunGramKB*) deals with the representation of constructional schemata in the FunGramKB *Grammaticon*, and discusses computational implementation requirements on constructional description for discourse structure. In this chapter we provide a computational representation for all the subgroups of constructions that have been the object of our study in chapters 4, 5, and 6.

Finally, chapter 8 (*Conclusions*) summarizes the main findings discussed in this dissertation and provides the reader with preliminary conclusions on the role of constructions and constructional families in discourse.

2

From discourse markers to constructionism in discourse

Discourse connectivity has been studied from many different perspectives, such as rhetorical structure (e.g. Asher & Lascarides, 2003; Mann & Thompson, 1988) pragmatic inferencing (e.g. Irmer, 2011) or lexical patterns (e.g. Hoey, 1991). However, most of the research carried out on discourse phenomena has predominantly been confined to the analysis of the use of discourse markers. The breadth of this issue makes it impossible to review in a single chapter the many studies that have appeared over the years on discourse markers. Instead, we will outline the major questions raised in this field and illustrate the developments. However, as will be evident in the course of this section, these studies do not account for regularities between the semantic (and/or pragmatic) interpretation and syntactic structure of the markers. We believe that adopting a Construction Grammar framework would be a solution for this task, since it could integrate the insights of frame semantics with grammatical theory.

This contention leads us to explain and compare the most significant constructionist approaches to language with the goal of describing the advances made over decades, but also with a view to highlighting what remains to be done. This will serve as the backcloth against which to consider the proposals made in the LCM with respect to the understanding of discourse constructions. In this connection, special emphasis will be made on what we believe is the descriptive and explanatory superiority of the LCM over other competing approaches. Finally, we will explain the notion of *family resemblance* to account for the existing relations between apparently dissimilar discourse constructions that can be group within the same category of constructions. All these notions will be essential to follow the discussion in the following chapters.

2.1 Discourse markers

Over the past thirty years, there has been an increasing amount of research on the theoretical status of discourse markers, focusing on what they are, what they mean, and what function(s) they manifest (Fraser, 1997, 1999, p. 933). Schiffrin (1987) is pointed out as the most important precedent for the United States, while the origin of the European perspective is represented by Halliday and Hasan (1976), parents of text studies within functional linguistics (see also Halliday & Matthiessen, 2004; Van Dijk, 1972, 1977, 1980).

Since then, researchers have been able to explain some of the intricacies that discourse connectives manifest for linguistics, such as partial descriptions of some connectives in different, typologically unrelated languages and/or the recognition that connectives work simultaneously on different discourse levels (interactive, grammatical, coherence, and so on) (Pons Bordería, 2001). There is also consensus about their fundamental role in the creation of coherence relations such as cause-

effect, condition-consequence, addition, etc., between clauses or sentences (Couper-Kuhlen & Thompson, 2000; Flamenco García, 1999; Izutsu, 2008; Mann & Thompson, 1988; Sperber & Wilson, 1986). However, the main concern, which is still at the center of the debate today, is the definition of the term *discourse marker* (hereafter, DM) and the range of features characteristic of such linguistic devices. As a consequence, a variety of terms are used to refer to these lexical expressions in the literature. The different terms change with the perspective taken by the linguist and the scope of analysis. Among the best known terms we find *pragmatic markers* (e.g. Brinton, 1996), *discourse operators* (e.g. Redeker, 1990, 1991), *discourse particles* (e.g. Abraham, 1991; Kroon, 1995; Schourup, 1985) *pragmatic particles* (e.g. Östman, 1981), *pragmatic expressions* (e.g. Erman, 1987; Silvennoinen, 2013), *connectives* (Van Dijk, 1979), *cue phrases* (Knott & Dale, 1994), *discourse signaling devices* (Polanyi & Scha, 1983), *phatic connectives* (Bazzanella, 1990) and of course *discourse markers* (Blakemore, 1987; Fraser, 1999, 2009, 2010; Schiffrin, 1987; Stubbs, 1983).

These concepts underlying these terms are by no means clear and they usually constitute a source of misunderstanding, as there is no agreement as to how they are to be defined or on how they function. This terminological diversity also evidences the fuzziness of the concept in question and reflects the difficulty of the task of categorizing and classifying such linguistic items.

For example, some researchers, like Schiffrin (1987), allow for non-verbal or paralinguistic features to be considered DMs. By contrast, Fraser (1999), and most other analysts, take DMs to be linguistic expressions only. For these analysts a DM has a core meaning, which can be enriched on the basis of the context, and signals the intended relationship between the utterance that the DM introduces and the foregoing utterance, rather than just shed light on such a relationship, as Schiffrin

(1987) suggests. In turn, supporters of Relevance Theory (Blakemore, 1987, 1992, 2002) understand connectives as inferential, non-conceptual, procedural elements that restrict the relevance of the propositions they link. In Blakemore's view, for example, DMs have only a procedural meaning, i.e. they consist of instructions about how to manipulate the conceptual representation of the utterance.

The view that we adopt in the present research acknowledges the existence of a procedural ingredient in DMs. However, DMs have content, the difference with other kinds of content lying in its high-level, relational nature. To understand this point, consider the meaning of *so* in *He married a rich heiress, so he won't have to work any longer*. For relevance theorists, *so* does not have any content. It only warns the hearer that not having to work (*p2*) follows in some way from marrying a rich heiress (*p1*). But the way in which *p2* follows from *p1* is explicitly signaled by *so*: *p2* is a consequence of *p1*. There are other possible ways of presenting the same basic connection with different shades of meaning: *He won't have to work any longer; after all, he married a rich heiress*; *Since he married a rich heiress, he won't have to work any longer.* In the first example, *p1* is presented as evidence for the conclusion in *p2*. In the second example, the use of *since* allows the speaker to present the same situation from the perspective of a cause-effect relational schema; and, unlike the version with *so*, we have syntactic dependency between the clauses expressing *p2* and *p1.* Since the underlying relational schemas marking the type of connection between predications are not affected by syntactic dependency and since such schemas carry non-procedural meaning, we will use the terms discourse marker (DM), or discourse connective, in their broadest sense to refer to any linguistic mechanism, independently of its syntactic status, used to link two or more predications into a more complex

conceptual package expressing conceptual relations. In this broad view, such predications are to be considered units of discourse.

An issue that has generated some controversy is which aspects of the meanings of DMs are semantic, i.e. have content, or pragmatic, i.e. serve a purely interpersonal function (Pons Bordería, 2001, p. 224). Schiffrin (1987, p. 314) for example, claims that "except for *oh* and *well* ... all the markers … have meaning", where by "meaning" we should understand semantic content rather than pragmatic function, but she does not go any further. The discussion in other studies does not shed any more light on this question. In most cases it is limited to a mere reinterpretation of well-described grammatical units (Pons Bordería, 2001, p. 225).

A number of studies focus their attention on a particular marker and investigate the coherence relations associated with it (Fillmore et al., 1988; Hannay et al., 2014; Noordman, 2001). These studies usually provide a wealth of details on the use of the DM under scrutiny. However, the fine-grained descriptions that they contain, while formulated with impressive accuracy, are not used to provide higher-level generalizations that can be applicable to the global understanding of discourse connectivity. The other side of the coin is provided by quantitative approaches, which supply use frequencies and interesting information about position constrains (e.g. Taboada & Gómez-González, 2012). In spite of its interest, quantitative approaches are of limited value for the purposes of the present dissertation. As will become evident further on, our focus of attention is not on frequency but on potential replicability, much in line with the criteria for qualitative constructionist analyses set out in Ruiz de Mendoza and Agustín Llach (2016). In principle, any discourse connection made by competent native speakers of a language and understood as acceptable in its context of production by other equally competent speakers of the same language is of potential

interest for a qualitative study. The analyst's aim, in this respect, is to ascertain the licensing factors for such a construction in its context of production. Besides this, the examination of large samples of related data is expected to reveal complementary constraining factors on the use of discourse marking devices, i.e. what speakers do not use productively or is hardly replicable.

In turn, Rhetorical Structure Theory (RST) is one of the best-known and widely applied methods for discourse analysis, developed by William Mann and Sandra Thompson in the 1980s. RST has been used in a variety of ways, including computer generation of text and as a prompting for the development of linguistic theory, providing a functional basis for studying the discourse-relevant specific forms in texts and various cohesive devices such as discourse markers (cf. Forsbom, 2005; Iruskieta et al., 2015; Mann & Thompson, 1988; Taboada & Gómez-González, 2012; Taboada & Mann, 2006).

This theory considers discourse to be a hierarchical organization of text segments or spans, classified into nucleus, satellite and multinuclear spans, according to the role a text span plays relative to another. Nucleus spans are those that contain essential information, as opposed to satellite spans which develop the information contained in the nucleus. In turn, multinuclear spans refer to relations between text spans of equal centrality. After dividing a text into those minimal units or spans, the RST analyst or *observer* (as they are called in most RST papers) labels the relation between the texts (e.g. antithesis, concession, elaboration, etc.).

However, the set of relations in RST is purely descriptive, and does not explain the differences between specific relations, nor the psychological status of the relations proposed. Moreover, to this date, no agreement has been reached on exactly which

relations and categories should be distinguished. As a result, there is no generally acknowledged standard set of relations, nor of the discourse markers that trigger such relations. Thus, a well-defined taxonomy of RST, on both theoretical-linguistic and computational grounds is still required.

Finally, contrastive studies try to explain how discourse markers should be rendered from one language to others (Altenberg, 2002; Degand, 2009; Degand & Pander Maat, 2003; Knott & Sanders, 1998; Lavacchi & Nicolás Martínez, 1994; Rudolph, 1996; Salkie & Oates, 1999), and to compare their use in different registers (i.e. spoken versus written language, colloquial versus formal language, etc.; cf. Taboada & Gómez-González, 2012) or investigate how they have changed over time (Rivarola, 1976).

Despite this variety of proposals, the existing studies offer an incomplete picture of how lexical items can be used and exploited in the construction of meaning. There is still no theoretically satisfying account of the links that make discourse coherent nor of the role that each discourse marker plays in the interpretation and generation of discourse relations. From a cognitive point of view, much ground remains to be covered on how or why discourse markers are selected for a given context while they are blocked in similar circumstances.

The main reason behind this deficiency lies in the fact that the existing work on discourse markers assumes that each marker has a use within a context and thus treats discourse markers as if they were unrelated polysemic devices. By contrast, in this dissertation, we argue that discourse markers are related by means of meaning extension mechanisms. Besides, none of the studies mentioned above pays systematic attention to contextual and co-textual factors in their descriptions. This

represents an important gap, since there is evidence that the meaning of a discourse marker changes depending on such factors[3]. That is, a marker gives rise to different but related meaning effects depending on the characteristics of the elements before and after it. These elements bind with the marker and work as constraining factors, which makes their analysis crucial for the investigation of discourse structure and the socio-pragmatic dimension of linguistic organization. Therefore, a more detailed and comprehensive analysis of such linguistic items is called for.

The data reported in this dissertation leads us to concur with Redeker (1991) that what is still needed is "a clearer definition of the component of discourse coherence and a broader framework that embraces all connective expressions and is not restricted to an arbitrary selected subset" (ibid, p. 1167). As a consequence, we need another dimension of analysis if we are to go any further in understanding the contribution of discourse markers to coherence. Taking the above into account, we argue in favor of a constructionist approach to the study of discourse markers for the following reasons:

1) Construction grammarians favor a unified approach to the study of language, integrating the syntactic, semantic and pragmatic dimensions rather than treating them separately as distinct levels of analysis (Franceschi, 2015, p. 56).

2) The notion of *construction* applies to units of any size or internal complexity, i.e. morphological units, words, phrases, clauses, etc. that "capture generalizations on conventional linguistic knowledge that cannot be derived or predicted on the basis of any other components of a given language" (Kiss & Alexiadou, 2015).

3) A constructional account avoids the need to postulate different senses for a DM, which would be necessary in lexical theories to explain the different meaning a DM can adopt depending on its discourse context. In practical terms, this gives

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[3]Schiffrin (1987:314) makes reference to the fact that the meanings conveyed by markers not only restrict the discourse in which they can occur, but also influence the overall meaning of that discourse. However, she does not take into consideration the constraints that the context places on the markers, nor the different meaning implications that such contexts convey on the markers.

rise to a better classification and categorization of DMs, since, in contrast to lexicalist accounts, which rely on lexical polysemy, construction grammars opt for constructional polysemy where the same form is paired with different but related senses of various levels of specificity.

4) Moreover, these meanings are linked by categorizing relationships to form a network centered on a prototype. These networks enhance the possibility of making explicit connections among discourse markers that have not been related in the literature as yet.

5) A further advantage of this approach to grammatical description and explanation is that it allows us to specify constraints in terms of the types of entity that can fill the slots before and after the markers together with the combinatorial conditions that may be imposed on each marker.

6) This approach also avoids placing excessive focus on the formal properties and behavior of discourse markers as many studies do.

For these reasons, this dissertation takes a clear constructionist stance. There are several largely complementary but at the same time competing constructionist accounts of language (cf. Dirven & Ruiz de Mendoza Ibáñez, 2010). The following section will review some of the best-known constructionist approaches to language, explaining the differences that characterize each of them.

2.2 A critical revision of constructionist grammar approaches

The primary purpose of this section is to present an overview of the fundamental features that characterize a subset of those approaches to language that fall under the umbrella of Construction Grammar (henceforth CxG), and to illustrate how they may differ from one another. We believe that the selection we have made is a fair reflection of the current state of the art. For a thorough overview of CxG accounts, we invite the reader to consult the work in Hoffmann and Trousdale (2013). For a comparison of

major functional and constructionist accounts, see Gonzálvez and Butler (2006) and Butler and Gonzálvez (2014).

CxG refers to a family of different but related theoretical approaches of language understanding in which generalizations about linguistic structure are formulated in terms of constructions (i.e. conventionalized form and meaning pairings). Kay and Fillmore (1995) characterize CxG as having the following defining properties: (1) it is non-modular (i.e. syntax, semantics and pragmatics form a continuum rather than separate, autonomous modules); (2) it is generative, non-derivational, and monostratal; (3) it is a unification-based approach (i.e. it does not admit the existence of stages of derivation from one level (or deep structure) to the next (i.e. surface structure)). CxG aims at full coverage of the facts of any language under study without loss of linguistic generalizations within and across languages. For all the approaches that will be presented below, the central notion is that of *construction*, a theoretical construct that is taken as the basic unit of linguistic analysis.

The conceptual origins of CxG can be traced most directly to Fillmore's Case Grammar, the first model to label itself explicitly as a Construction Grammar (Butler & Gonzálvez-García, 2014). As indicated by Östam and Fried (2005, p. 1), Fillmore's original characterization of Construction Grammar included four general requirements:

i. It should be a generative grammar and thus formalizable.
ii. It should integrate different domains or "components" of grammar (phonology, morphology, syntax, semantics, and pragmatics).
iii. It should be a grammar with universal impact.
iv. It should be consistent with what we know about cognition and social interaction.

Since then, there has been a proliferation of different approaches within the CxG framework (with a much stronger cognitive orientation) to "develop Construction Grammar as a model in which we can describe, analyze, and generate all the linguistic

constructs of a language" (Östman & Fried, 2005, p. 1). As a result, CxG has developed into a sophisticated metalinguistic model, which encompasses a variety of linguistic theories.

The most significant Construction Grammar approaches include Fillmore's Case Grammar (CaG) also called Berkeley Construction Grammar (BCxG) (Fillmore, 1968; Fillmore et al., 1988; Fillmore & Atkins, 2000; Kay & Fillmore, 1995, 1999), Lakoff's (1987) original version of CxG and its more recent development, Embodied Construction Grammar (cf. Bergen & Chang, 2005, 2013), Langacker's Cognitive Grammar (CG) (cf. Langacker, 1987, 1991a, 1991b, 2008), Goldberg's CxG (cf. Goldberg, 1995, 1996, 1997, 2002, 2003, 2005a, 2005b, 2006, 2009), Croft's Radical Construction Grammar (RCG) (cf. Croft, 2001, 2003, 2005), Boas's Frame -semantic Construction Grammar (FSCG) (cf. Boas, 2000, 2002, 2003, 2005a, 2005b, 2009, 2011a, 2011b), Sag et al.'s Sign-Based Construction Grammar (SBCG) (Boas et al., 2009), Fluid Construction Grammar (FCG; cf. De Beule & Steels, 2005; Steels et al., 2012), and the Lexical Constructional Model (Mairal Usón & Ruiz De Mendoza Ibáñez, 2009; Ruiz De Mendoza Ibáñez, 2013; Ruiz De Mendoza Ibáñez & Galera Masegosa, 2014; Ruiz De Mendoza Ibáñez & Mairal Usón, 2008, 2011).

All these models of language assume that constructions are symbolic units of form and meaning/function and address the possibilities that Construction Grammar can offer in the understanding of how knowledge and meaning are created in the speakers' minds. However, they differ in important matters, such as in their view of what constitutes a construction. The following lines will review each of these approaches and explain the motivations behind the selection of the Lexical Constructional Model over the rest of constructionist approaches.

2.2.1 Fillmore's Case Grammar

Fillmore's approach was developed to resolve the cases that Generative Grammar could not handle, such as idioms like *kick the bucket,* whose meaning cannot be inferred on first hearing. Formal idioms of this kind are learned as a whole rather than word by word, and in many cases, their meaning cannot be predicted from their component parts. This non-compositional nature of constructions was what attracted Fillmore the most; for him, the meaning and use of a construction is not predictable from the meaning of its parts.

According to Fillmore, "a grammar of a language is in large part a repertory of holistic patterns, the language's grammatical constructions" (Fillmore, 1989, p. 18; Kay, 2002, p. 1). Such constructions condense syntactic, semantic, phonological and pragmatic knowledge into a single representation[4]. According to Fillmore's model, constructions could be any syntactic pattern to which one or more conventional functions in a language are assigned, together with whatever is linguistically conventionalized about its contribution to the meaning or the use of structures containing it (Fillmore et al., 1988, p. 36). Therefore, each formal pattern has particular meaning(s) or use(s) associated with it (or them), i.e. constructions are the primary unit of the grammar of a language, and they are related to one another by means of a set of principles which govern the nesting and superimposition of constructions into or upon one another" (ibid, p. 37).

Different from the other approaches that will be presented below, this perspective defends the separation between lexicon and grammar and focuses on compositional constructions. Another important difference is that this approach is not 'usage-based',

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[4]Fillmore and his collaborators define constructions as conventional associations(s) of any or all of the following kinds of grammatical information: syntactic, semantic – including pragmatic, lexical and phonological (Fillmore et al., 1988:534).

because "it does not address any generalizations concerning the actual use of language (e.g. frequency) and/or fully compositional configurations (see Goldberg, 2006, pp. 214–215)" (Gonzálvez-García & Butler, 2006, p. 44).

In the mid-2000s, developers of BCxG including Fillmore, Kay, Sag and Michaelis, concentrated their efforts on enhancing BCxG's original formalizations in order to increase its analytic precision for the description of all languages. The result was Sign Based Construction Grammar (SBCxG) (Boas et al., 2009; Sag, 2012). According to this new approach, language is an inventory of signs, complexes of linguistic information concerning three levels: (i) phonology, (ii) morphological form, syntax, and (iii) semantics. For this model, constructions are the means by which simpler signs are combined into more complex signs.

2.2.2 Lakoff's CxG

Lakoff's work has inspired some of the most important developments in CxG (Bergen & Chang, 2005; Goldberg, 1989, 1992, 1995, 2006, Gonzálvez-García, 2009a, 2011). To him we owe the first definition of the notion of construction within Cognitive Linguistics, i.e. "a form-meaning pair (F, M), where F is a set of conditions on syntactic and phonological form and M is a set of conditions on meaning and use" (Lakoff, 1987, p. 467).

Central to Lakoff's approach is the assumption that syntax and the lexicon form a continuum, rather than being independent of each other, and that linguistic form is motivated and can therefore be predicted on the basis of semantic meaning; Lakoff (1987) proposes to organize constructions as hierarchically structured classical categories.

2.2.3 Langacker's Cognitive Grammar (CoG)

Langacker's CoG is considered "the most comprehensive, and most fully articulated statement of a cognitive linguistic approach" (Taylor, 2002, p. xi), and constitutes one of the most important improvements in the investigation of grammatical constructions. CoG emerged as a usage-based model rejecting the Universal Grammar hypothesis, and similarly to the rest of CxG accounts here presented, in this approach lexicon and grammar form a continuum.

However, in his proposal Langacker appeals for a reduction of lexicon and grammar to assemblies of symbolic structures, which are pairings of semantic structure (indicating the conceptual content and the construal imposed on that content) and phonological structure (cf. Langacker, 2005, p. 164). That is, instead of talking about *constructions,* Langacker coins the term "conventional symbolic units", which convey a broader view of what constitutes a construction. This notion would encompass syntactic, morphological and phonological properties (Langacker, 1987, pp. 57–63), making all elements, structures and constructs used in grammatical description meaningful. So, for Langacker, the grammar of a language is made up of a syntagmatic combination of morphemes and larger expression that elaborate those symbolic structures (i.e. constructions) (Langacker, 1987, p. 82).

2.2.4 Goldberg's Cognitive Construction Grammar (CCG)

Goldberg's approach, which is primarily influenced by Lakoff's (1987) case study on *there* constructions and by Kay and Fillmore's (1999) research on idiomatic constructions, embodies a cognitively-oriented approach to the notion of construction. Her most important contribution was to extend the constructional approach from irregular idiomatic constructions to regular constructions, thus giving birth to what is

now known as Goldberg's Construction Grammar (henceforth CCG) (Goldberg, 1995, 2006).

Devoted primarily to issues of argument structure and primarily in the area of language acquisition, Goldberg focuses on the psychology of language at the cognitive level. Unlike other variants of CxG, Goldberg has provided empirical evidence for the real psychological status of constructions, based on language processing and/or acquisition and aphasia (Behrens et al., 2000; Goldberg, 2006; Goldberg et al., 2004). She is mostly concerned about the nature of our knowledge of language, and about how learners acquire generalizations such that they can produce an infinite number of novel utterances based on a finite amount of input.

In her original definition of the term *construction* (Goldberg, 1995, p. 205) which is quoted below, F represents form and S stands for semantic meaning, <Fi,Si> being a symbolic unit with form and meaning:

> C is a CONSTRUCTION iff$_{def}$C is a form meaning pair $<F_i,S_i>$ such that some aspect of F_i or some aspect of S_i is not strictly predictable from C's component parts or from other previously established constructions.

This definition was not very different from Fillmore's, except for the fact that it made greater emphasis on the predictability component of constructions; for Goldberg (1995, 2006), in order to consider a construction as such, at least one of its properties must not be predictable from its constituents or component parts. Langacker also introduced predictability in his definition of constructions, but in a different way; in Goldberg's account both simple and complex units may count as constructions, unlike in Langacker's, where constructions must be complex symbolic units.

In her later work, Goldberg refines her definition of construction to include a frequency element:

Any linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognized to exist. In addition, patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency (Goldberg, 2006, p. 5).

Her most important contribution is her quest to explain constructions by identifying networks, alternations or families of constructions thus allowing linguists to make generalizations about language use. In Goldberg's work, constructions interact within a network of relations that take the form of inheritance links. She distinguishes four different types of such links; (i) *Polysemy links,* which capture the relation between any particular sense of a construction and the extensions from this sense (i.e. *John gave Sally the ball* vs. *John promised Sally the ball),* (ii) *Subpart links,* when one construction is a subpart of another and exists independently (i.e. *Mary walked the dog* is a subtype of *The dog walked* because it adds a causal element), (iii) *instance links,* when a construction is an example or special case of another construction, and (iv) *metaphorical extension links,* which capture the relationship between two constructions that are metaphorically related.

Unfortunately, Goldberg's research is mostly limited to verb-argument constructions and to their various possible configurations, and does not devote much attention to discourse phenomena. She also fails to "provide a fully elaborated or axiomatized system of sentence representation" (Boas et al., 2009). One of the criticisms most frequently leveled at Golberg's work lies primarily in the fact that her analysis is not based on real attested data (Chafe, 2000). Her definition of constructions has also been criticized for being too broad and underspecified (e.g. Bod, 2009; Östman & Fried, 2004). Lieven (2009, p. 197) and Bod (2009, p. 130) also note that she does not clarify in what exact way constructions combine with one another (i.e. "constructions are combined freely to form actual expressions as long as they are

not in conflict" (Goldberg, 2006, p. 10). Gonzálvez-García and Butler (2006, p. 58) also criticize the lack of connection between language and social situation in Goldberg's proposal.

However, some of Goldberg's insights into language can be fruitfully applied to the study of discourse constructions. In the same manner that verbs have as many senses as the number of constructions that license their use, discourse markers also see their meanings changed depending on the constructions where they are inserted (i.e. it is the properties of the constructions that ultimately determine the meaning of the markers appearing in them). While it is true that discourse markers or connectors contribute meaning to constructions, the latter have their own conventional semantic properties regardless of the single lexical items instantiating them. Consider for example the case of the marker *never mind*. According to the data in our corpus, this marker could be used:

(i)   To link two or more negative alternatives that complement one another, as in *I always cry watching sad films, never mind reading their scripts.*

(ii)   To emphasize that one state of affairs is or should be less likely to happen than another state of affairs, as in *Adriá is a legend in the restaurant world, though most of humanity will never see, never mind taste, his food.*

(iii)   To emphasize that what has just been said could be greater or more surprising than what has just been suggested, as in *I'd be terrified if I found myself alone in London, never mind New York.*

(iv)   To add more information or examples about the X part of the construction in order to emphasize that something is self-evident, as in examples like *With this knee injury I can't walk, never mind run.*

Another important proposal in Goldberg's work is the contention that constructions are not static assemblies. Instead, they often interact with other constructions, producing a fluid network of relationships (Goldberg, 1995: 67-68). According to the author, constructions can also be grouped within constructional families that share a basic feature of meaning.

2.2.5 Croft's Radical Construction Grammar

Primarily motivated by typological issues, this model combines insights from functional typological theories and cognitive approaches, and it is mostly based on both Fillmore's CxG and Langacker's CoG. It understands constructions (or "primitives", as he calls them) as the only basic linguistic units. His notion of *construction* applies to any grammatical structure, including both its form and its meaning, and constructions are the only primitive units in grammar. In his view, "all formal grammatical structures are seen as language-specific and construction-specific and there is no need for lexical categories such as Noun or Verb or relational categories such as Subject and Object" (Östman & Fried, 2005, p. 7).

Regarding the structure of constructions, these can be classified into simplex or complex, whereas in terms of meaning, they can be either specific or schematic. He also differentiates between "atomic substantive constructions" (in the lexicon) and "complex schematic constructions" (in the syntax). *Table 1* below represents Croft's (2001, p. 17) classification of constructions.

Construction type	Traditional name	Example
Complex and mostly schematic	Syntax	[NP *be*-TENSE VERB-*en by* NP]
Complex and mostly specific	Idiom	[*pull*-TENSE NP'S *leg*]
Complex but bound	Morphology	[NOUN-*s*], [VERB-TENSE]
Atomic and schematic	Word classes	[NOUN], [VERB]
Atomic and specific	Lexical items	[*the*], [*jumper*]

Table 1. RCG Taxonomy of constructions

In his view, constructions form a taxonomic constructional network, with each construction constituting an independent node. He understands constructions as organized into categories in a way also found for other categories, allowing for prototype organization with a construction displaying a number of related senses (i.e. polysemy) (Croft, 2003, pp. 25–27).

RCG rejects the existence of word classes and grammatical functions, which are regarded as both language-specific and construction-specific. According to its founder, "categories and relations are construction-specific and constructions are language-specific, then virtually all of the formal syntactic properties of grammar are language-specific and therefore must be learned INDUCTIVELY" (Croft, 2001, p. 58). However, RCG does not fully exploit evidence from first language acquisition to ground its view of syntax (cf. Sansò, 2003, p. 673).

From Croft's perspective, "there are no syntactic relations between elements in a construction". Instead, causal relations among participants in the action determine the syntactic relations (subject, object, etc.). For example, in the case of the predicate *sell,* the subject can be the agent (*He sells the book*), the patient (*The book sells well*), or the location, (*This shop window sells well*). As can be seen from the examples, the causal configuration of the construction determines the subject in each case.

Therefore, what distinguishes this approach from the rest is mainly its focus on the semantization of syntax, based on the assumption that form is semantically motivated. Another important feature that distinguishes this model from the rest of CxGs is its focus on typology, as it explores cross-linguistic patterns in greater detail than has been done so far in Cognitive Grammar.

2.2.6 Boas's Frame-semantic Construction Grammar

Boas's CxG is a good example of a lexical-constructional approach; he puts forward a usage-based analysis that regards the lexical semantic information associated with verbs as central to the licensing of resultative constructions (i.e. it explains how lexical items are capable of licensing or blocking out their fusion into resultative constructions) (cf. also Boas, 2000, 2002). He postulates the existence of lower-level constructions (or *mini-constructions*, as he calls them) which are form-meaning pairings differing in complexity from more abstract constructions. Such mini-constructions represent particular conventionalized senses of verbs including syntactic, semantic, and pragmatic information (Boas, 2008, p. 127). Constructions thus acquire the status of the elementary building blocks of human language (Boas & Fried, 2005, p. 2).

However, Boas claims that in order to fully understand how lexical items are capable of being subsumed into constructions, we need to offer a complete description of the semantico-pragmatic information of the lexical item in question. This information includes event participants, force-dynamic relations between event participants (Talmy, 2000), temporal information, world knowledge, and specifications with respect to the types of phrases occurring with a specific sense of a verb. Thus, each sense of a verb is represented by its own "packet of semantic information", or event-frame

(Boas, 2003, p. 159). Such a fully developed description of verb senses and their respective relation to event-frames enables Boas to explain the conditions under which a given verb occurs within a particular construction type, with special focus on which elements are allowed and which ones are blocked. Unfortunately, he does not specify the nature of such licensing and blocking factors.

The notions of conventionalization and collocational restrictions are other basic claims advocated by Boas; he demonstrates that collocation restrictions are also crucial in order to understand the relationship(s) between verbs and post verbal constituents in different constructions. For example, certain word combinations are preferred over others. This is the case of phrases that use the 'drive-crazy' sense of *drive*, which must be learned by speakers, and tend to collocate better with 'mad/to madness' than with 'over the edge' or 'to insanity'.

The greatest strength of Boas's approach is the wide amount of data offered as empirical evidence for his claims, mostly on the decisive power that a lexical entry displays in its syntactic projection. However, Boas tends to cover very prototypical cases which do not always reflect the creative potential of the speaker (Luzondo Oyón, 2011). Another important drawback of Boas's approach is that it is not economical, as it posits one mini-construction for each predicate in question, which leads to an over-proliferation of descriptive categories.

2.2.7 Bergen and Chang's Embodied Construction Grammar

This approach was originally based on Lakoff's (1987) CxG. The central concept in it is that of embodied schemas. Its aim is to develop simulations of the interpretive processes involved in on-line interaction, in which the knowledge of conventionalized structures and meanings (i.e. constructions and words) must be integrated with implicit

and open-ended inferences based on situational and interactional contexts (Kiss & Alexiadou, 2015). Basically, it focuses on the development of a formal system to describe constructions in order to account for the embodied knowledge involved in language processing, i.e. language comprehension or understanding.

In its idea of what constitutes a construction, this model includes linguistic units of different sizes, ranging from morphemes and words to phrases and sentences.

According to Bergen and Chang (2005), when a speaker hears an utterance he performs two tasks; first, he analyzes it, mapping each of the phonetic forms of the utterance onto a construction in the hearer's structured inventory of constructions (i.e. the grammatical system) at morpheme, word and phrase level, to recognize the constructions that it instantiates. Then, the speaker activates the conceptual content that the construction represents with the purpose of processing the information and producing a response to the message. This second task is what Bergen and Chang (2005) have labeled *simulation.* At this second stage, our embodied experience gives rise to the conceptual representations in terms of image-schematic structures, giving rise to a number of pragmatic inferences.

The main drawback of this approach is the lack of addressing compositionality issues, the inventory of linguistic units, or the status of grammatical categories. Finally, unlike the rest of constructional approaches here presented, this model does not pay attention to how linguistic knowledge is modeled and represented.

2.2.8 Fluid Construction Grammar

This trend in CxG extends the constructional approach into the domain of artificial intelligence (cf. papers in De Beule & Steels, 2005; Steels, 2011, 2012; Steels et al.,

2012). The main concern of FCG is to develop computer simulations and robotic experiments that study the development of shared grammar across multiple agents.

Steels defines FCG as "a notational tool for writing down construction grammars and a computational tool for experimenting with language processing (parsing and production), learning, and language evolution" (Bergen, 2008, p. 340). It uses feature structures to represent intermediary states of language processing and abstract feature structures to represent conventionalized language constructs, such as lexical entries or grammatical constructions (Bergen, 2008, p. 341).

2.2.9 Final considerations

The lines above have introduced the reader to the many different approaches within the Construction Grammar framework, summarizing the amount of research conducted on the construction of knowledge and language representation within this field. However, none of the accounts described above has made any proposals for integrating systematic and conventionalized discourse phenomena into Construction Grammar.

The description of the different accounts provided above allows us to see that only Goldberg's version of CxG is clearly compatible with a constructionist approach to discourse, since it makes provision for different facets of information structure such as topic and focus, as well as pragmatic and discourse information incorporated within the function pole of constructions:

> In addition to semantic generalizations there also exist generalizations about 'information structure' properties of the construction, or the way in which a speaker's assumptions about the hearer's state of knowledge and consciousness at the time of speaking is reflected in surface form. In particular, there is a statistically reliable tendency for the recipient argument to have already been mentioned in the discourse (often encoded by a pronoun) as compared with prepositional paraphrases [9, 34, 35]. Facts about the use of entire constructions, including

register (e.g. formal or informal), dialect variation and so on, are stated as part of the construction as well. Because they specify a surface form and a corresponding function, constructionist approaches provide a direct way of accounting for these facts (Goldberg, 2003, p. 221).

None of the rest of CxG approaches incorporates any information regarding the importance of discourse facets in the analysis of language processing, nor have they proved fully adequate to account for discourse phenomena.

Besides, the existence and the analysis of constructions at discourse level has been neglected up to now, and so far, no studies have been conducted to see if the polysemy discourse markers display is constructional. In line with recent work by Antonopoulou and Nikiforidou (2011), this dissertation defends the idea that constructional analysis can be profitably extended to discourse analysis. In fact, the integration of a discourse dimension into Construction Grammar is essential in order to account for aspects of sentence grammar that are constrained or licensed by discourse phenomena. This leads us to conclude that no matter how adequate the above traditional constructionist approaches have been for the development of argument structure or illocutionary constructions, what is still needed is a constructionist approach to discourse. This deficiency has also been recognized by Östman and Fried (2005, p. 125), who acknowledge that, so far, CxG has not established any notion of what belongs where in the areas of pragmatics, register or discourse. It is thus necessary to combine pragmatic and discourse phenomena with what we know about grammar from a constructional perspective in order to capture the constructional peculiarities of discourse and produce more powerful descriptive generalizations on language.

Despite this sobering picture, we have found a model that contains the essential ingredients to meet this need. This is the Lexical Constructional Model (hereafter,

LCM), a usage-based, comprehensive theory, which covers all facets of meaning construction, with the aim to achieve higher standards of explanatory, psychological, typological, and pragmatic adequacy (Luzondo Oyón, 2011, p. 102). This model makes use of the analytical insights of some functional accounts (Dik, 1997; Dik & Hengeveld, 1997; Van Valin, 1993, 2008; Van Valin & LaPolla, 1997), and cognitivist and/or constructionist approaches, attempting to bridge the gap between them. Nevertheless, the LCM has also developed its own analytical tools for the description of meaning construction with the purpose of integrating the pragmatic and discourse dimensions of language into its descriptive and explanatory apparatus.

The following section provides an outline of the most significant developments within the LCM and provides the motivations for the selection of this model over the rest of CxG approaches for the purposes of the present dissertation. Technical aspects of this particular model can be found in detail in Mairal and Ruiz de Mendoza (2009), Ruiz de Mendoza and Mairal (2008, 2011), Ruiz de Mendoza (2013), Ruiz de Mendoza and Galera (2014), and the references therein.

2.3 The Lexical Constructional Model (LCM)

As previously mentioned, the LCM is a comprehensive model of meaning construction through language in context (Ruiz De Mendoza Ibáñez, 2013). According to LCM proponents, the integration of cognitive and functional accounts is necessary in order to provide a fully adequate explanation of all aspects of meaning construction (Mairal Usón & Ruiz De Mendoza Ibáñez, 2009; Ruiz De Mendoza Ibáñez, 2013; Ruiz De Mendoza Ibáñez & Mairal Usón, 2008, 2011). Thus, this model combines observations from (i) functionalist approaches such as Dik's Functional Grammar (FG; Dik, 1997; Dik & Hengeveld, 1997), Systemic Functional Grammar (SFG; Halliday &

Matthiessen, 2004), and Role and Reference Grammar (RRG; Van Valin, 2008; Van Valin & LaPolla, 1997); (ii) Cognitive Linguistics (CL), especially the Lakoffian strand of Cognitive Semantics (Lakoff, 1987; Lakoff & Johnson, 1999), and Goldberg's Cognitive Construction Grammar (CxG; Goldberg, 1995, 2006); (iii) Natural Semantic Metalanguage (NSM; Goddard & Wierzbicka, 2002; Wierzbicka, 1996, 1999), and Explanatory and Combinatorial Lexicology (ECL; Mel'cuk, 1989; Mel'cuk & Wanner, 1996). However, the LCM does not fully identify itself with any of these approaches, and in consequence, it has built its own set of tools for linguistic description and explanation to account for meaning construction and interpretation and for the formal realization of conceptual structure (Ruiz De Mendoza Ibáñez, 2013; see also Ruiz De Mendoza Ibáñez & Galera Masegosa, 2014).

In the domain of description, this model distinguishes four meaning construction levels; argument structure (level 1), implicational structure (level 2), illocutionary structure (level 3) and discourse structure (level 4) (see *Figure 1* below). Levels 2, 3 and 4 show a higher degree of idiomaticity when compared to level 1 constructions. These different layers are not independent of each other, but interact among one another following a number of construal principles called *internal* and *external* constraints. The former work on the basis of the compatibility between the conceptual characterizations of lexical predicates and argument-structure constructions, whereas the latter are based on how lexical structure can be re-construed to make it fit into a non-lexical construction. Internal constraints can be further subdivided into two types: (i) constructional constraints on lexical structure; and (ii) lexical constraints on the instantiation of constructional variables (see Ruiz de Mendoza, 2013, for a detailed explanation).
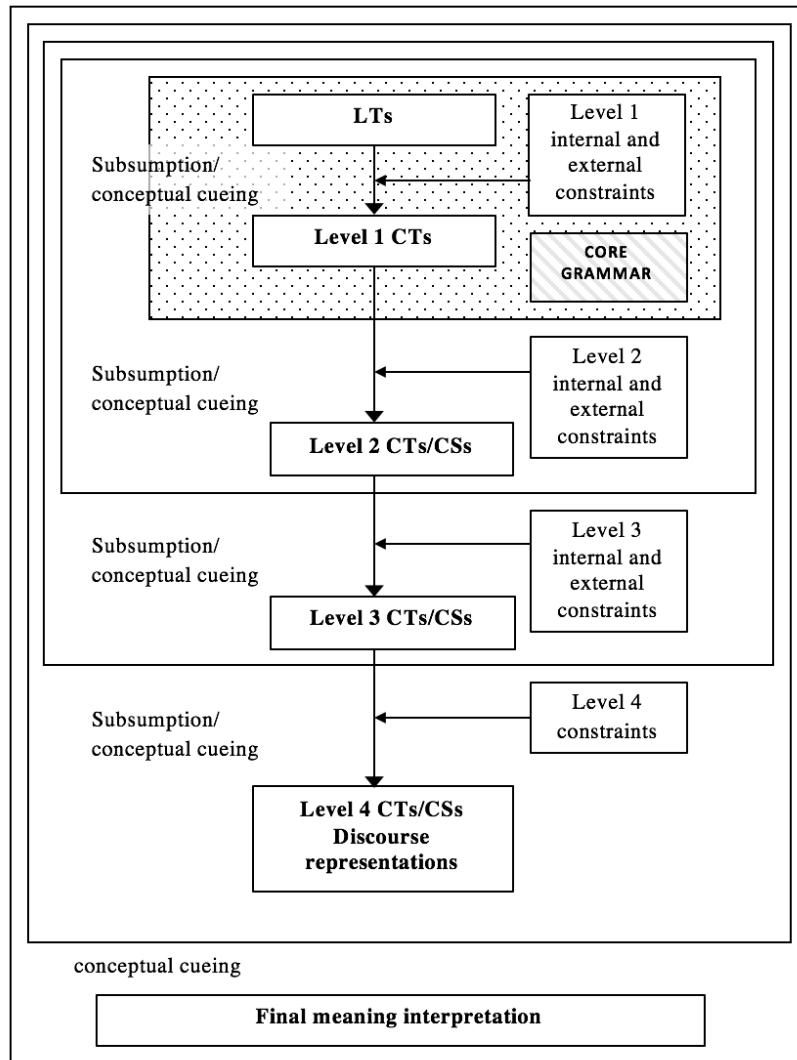
Figure 1. The overall architecture of the Lexical Constructional Model

Most of the work carried out in the LCM has concentrated on the theoretical development of the levels of argument structure (cf. Baicchi, 2011; Galera Masegosa & Ruiz De Mendoza Ibáñez, 2012; Peña Cervel, 2009; Ruiz De Mendoza Ibáñez, 2013; and the references therein; Ruiz De Mendoza Ibáñez & Mairal Usón, 2011) and illocution (cf. Baicchi & Ruiz De Mendoza Ibáñez, 2010; Del Campo Martínez, 2011b, 2013; Pérez-Hernández & Ruiz De Mendoza Ibáñez, 2011; Ruiz De Mendoza Ibáñez & Baicchi, 2007; Ruiz de Mendoza Ibáñez & Gonzálvez-García, 2011; and the references therein). However, unlike the rest of CxG approaches, the LCM leaves the door open for investigations on implicational and discourse structure (Mairal Usón &

Ruiz De Mendoza Ibáñez, 2009; Ruiz De Mendoza Ibáñez, 2013; Ruiz De Mendoza Ibáñez & Mairal Usón, 2008). In fact, Ruiz de Mendoza and Galera (2014) have offered a broad overview of constructions at all descriptive levels from the point of view of the kinds of cognitive structure underlying them.

Ruiz de Mendoza and Gómez González (2014) suggest the possibility of organizing discourse constructions on the basis of family resemblances. Their work represents the first step in the classification of constructions at discourse level, although they only offer general taxonomic aspects and do not investigate the intricacies of this level in profound. It is therefore necessary to further develop these initial explorations in order to endow the LCM with greater discourse adequacy.

Notwithstanding such small deficiencies, we believe that the LCM provides the most appropriate framework for the investigation of constructions at discourse level for the following reasons:

First, like functionalist approaches to language, this model understands form in relation to function. However, it goes beyond exploring how communicative activity impinges on linguistic form by investigating its cognitive grounding too. In fact, the LCM is highly ambitious in this respect, since it aligns form, function, and cognition. The idea is that cognitive modeling, i.e. the activity of cognitive operations on concepts (or cognitive models) partly takes place in response to human communicative needs; the resulting conceptual characterizations are realized by formal devices in different degrees of complexity. The meaning potential (in Halliday's (1978) sense of the term) that such devices hold is thus not only a function of their possible use in communication but also of the constraints imposed by cognitive activity.

Secondly, the LCM subscribes to the assumption that constructions have real cognitive status (Eddington & Ruiz De Mendoza Ibáñez, 2010) and that the notion of construction applies to all types of lexico-grammatical unit (Ruiz De Mendoza Ibáñez, 2013; see Ruiz De Mendoza Ibáñez & Mairal Usón, 2008). We also concur with the LCM understanding of the notion of construction; while most constructionist approaches to language understand the notion of *construction* as simply a form-meaning paring (Goldberg, 1995, 2006), we agree with the LCM that a *construction* is much more than that, i.e. it is a conceptually entrenched (i.e. frequent and straightforwardly replicable) form-meaning association where form is realizational of meaning. In words of the founders of the LCM, a construction is:

> […] a form-meaning pairing where form affords access to meaning and meaning is realized by form to the extent that such processes have become entrenched in the speaker's mind and are generally recognized by competent speaker of the language in question to be stably associated or are at least potentially replicable by other competent speakers of the same language with immaterial variation in its form and meaning (Ruiz De Mendoza Ibáñez, 2013).

According to the LCM, even fully transparent or compositional expressions (e.g. *I love you*) are to be considered constructions as long as they are deeply entrenched in the linguistic system. This claim is only in partial consonance with Goldberg's most recent views on this issue, who now admits that fully compositional expressions convey constructional meaning too. The difference with the LCM is that Goldberg argues in favor of frequency to determine whether a form-meaning pairing is a construction, whereas the LCM has opted for replicability, as can be noted from the quotation above. LCM proponents find the frequency criterion unreliable, since frequency should be determined according to communicative aims and needs. This means that there is no hard-and-fast non-arbitrary way of determine when a given frequency range guarantees constructional status to a form-meaning association.

Another important aspect of the nature of constructions according to the LCM is that they are present at all levels of linguistic description, from argument structure characterizations to discourse structure, and, like lexical items, come in families of related conceptual configurations (cf. Gonzálvez-García, 2009a).

Thirdly, the architecture of the LCM "is sensitive to the combination of bottom-up and top-down strategies, which are decided upon as discourse progresses" (Ruiz De Mendoza Ibáñez & Gómez-González, 2014, p. 308). This allows for the "online construction and interpretation of messages as needed according to ad hoc discourse needs" (Ruiz De Mendoza Ibáñez & Gómez-González, 2014, p. 308).

Finally, we agree with the contention made by LCM proponents that discourse connectivity can be accounted for partly in terms of the inferential exploitation of knowledge structures of various kinds, and partly in terms of discourse constructions (Ruiz De Mendoza Ibáñez & Gómez-González, 2014, p. 296). Over the years, non-inferential discourse connectivity has been claimed to be a matter of lexico-grammatical mechanisms such as synonymy, antonymy, repetition, substitution, anaphora, and the like. The introduction of the notion of construction into the picture is a challenge to previous views. As mentioned above, this alternative view offers explanatory advantages. Some are based on the study of grammatical marking as constrained by constructional requirements. This allows for very precise definitions of the marking devices, which include more than mere reference to their different uses by taking into account the cognitive models and cognitive operations underlying them. It also allows for their arrangement into families, with different degrees of resemblance, like lexical concepts. The examination of family-resemblance properties of discourse connectors does more than just contrast them on the basis of a restricted number of features, which is reminiscent of feature theory and lexical classes semantics (cf.

Faber & Mairal Usón, 1999). It places each device within a context of conceptual connections bearing various degrees of similitude and differences.

For the reasons stated above, we consider that the ideal framework for our task of identifying and classifying constructions at discourse level is the Lexical Constructional Model.

2.4 Constructions at discourse level

It is only over the past few years that constructionist approaches to language have started to pay attention to discourse patterns. Lambrecht (1996, 2004), Michaelis and Lambrecht (1996), and Croft and Cruse (2004, pp. 242–243) represent the earliest attempts to identifying sentence-level constructions that display special discourse-pragmatic features. Since then, researchers like Östman and Fried (2005) and Östman and Trousdale (2013) have tried to extend constructional analysis to larger pieces of conventional discourse, defending that "construction grammar methodology can be fruitfully extended to account for discourse phenomena". This contention is also defended by Nikiforidou (2009, 2010), who agrees upon constructional framework being definitionally capable of accommodating discourse phenomena.

Other recent works include Östman and Fried (2005), Fried (2009), Linell (2009) and Wide (2009), who have focused on constructions whose description requires reference to the dialogic context, or Halliday and Matthiessen (2006) or Feyaerts (2006) who studied larger units in register-specific discourse such as recipes or headlines respectively.

However, as noted above, investigations of discourse phenomena from a constructivist perspective are scarce and, so far, a definition of what constitutes a

discourse construction has not been provided. Only in Östman's (1999, 2005) work do we find an approximation of what constitutes a discourse construction, i.e. a conventionalized association of a particular text type (such as argumentative, descriptive, narrative, etc.) with a particular genre (for example recipes, obituaries, fairy tales). He defends the existence of an inventory of discourse patterns, a *discursicon*, that a language has as part of the repertoire that native speakers are familiar with, and that they can refer to at will. Unfortunately, he does not go any further, and does not offer any sort of semantic or pragmatic descriptions of the discourse constructions in question.

As far as we know, the LCM is the only constructionist account of language that has given discourse phenomena the importance it genuinely deserves. In fact, level 4 of the model is focused on defining the kinds of relation that can hold between clauses in discourse, from the constructional and implicational perspectives. According to this model, understanding the nature of these relations is essential in order to understand the "discourse flow", that is, how connectivity is achieved thus giving rise to overall discourse structure.

The LCM distinguishes two ways in which such connectivity can be created or enhanced: (i) through inferential mechanisms, which is roughly the same as classical coherence, and (ii) through constructional resources (i.e. form-meaning parings whose purpose is to set up connections that go beyond basic predications (Ruiz De Mendoza Ibáñez & Gómez-González, 2014). This dissertation centers on the second mechanism, thereby offering an inventory of classified constructions at discourse level and a detailed description of their role in discourse structure.

In the present proposal, we endorse the LCM definition of discourse constructions, by which discourse constructions are understood as idiomatic form-meaning pairings that capture *logical relations* such as cause-effect or evidence-conclusion, *temporal relations* such as precedence and simultaneity, or *conceptual relations* such as addition, exemplification, contrast, etc. grounded in high-level cognitive models. In the LCM, "discourse relations underlie the meaning part of discourse constructions" (Ruiz De Mendoza Ibáñez & Gómez-González, 2014). A discourse construction (e.g. *X Let Alone Y*; cf. Fillmore et al., 1988) generally consists of a fixed part and two variables, where the fixed part is a connector (a discourse marker or a conjunction).

In their seminal work on the description of the fourth level of the LCM, Ruiz de Mendoza and Gómez Gonzalez (2014) offer a preliminary list of discourse relations that are reproduced in *Table 2* below.

Discourse relation	Some basic constructional layouts	Description	Example
Restatement	*X, In Other Words Y;* *X, That Is (To Say) Y*	The information in Y is fully or partially equivalent to the information in X	*She has run out of money; in other words, she is broke.*
Comment	*X, Which Y*	The information in Y addresses all or part of the information in X	*Only the driver survived the accident, which is still under investigation.*
Specification	*X V know/say/think That Y*	The information in Y gives details on the kind of state of affairs that the cognizer in X has represented in his mind	*We all knew that a cyclone was coming.*
Exemplification	*X As Is Illustrated /Evidenced/Exemplified By Y*	The information in Y exemplifies the information in X	*Our cultural diversity is under threat as is illustrated by language loss.*
Addition	*X And Y*	The information in Y is added to the information in X in a way that preserves conceptual consistency	*I wore a hat and sprayed my scalp every few hours.*
Exception	*X Except (For)/With The Exception of Y*	The information in Y cancels out part of the information in X	*I like the new candidate except for his foreign policy.*
Alternation	*Either X Or Y*	The information in Y cancels out all of the information in X (contrastive alternation) or complements it (complementary alternation)	*Either he's evil, or he's a fool* (contrastive). *He is neither evil nor a fool* (complementary).
Contrast	*X But Y/ X, however Y/ X*	The information in Y is totally or partially in conflict with the information in X	*He has a New York accent; however, he was born in Texas.*
Comparison	*X, Y Too; X, So Is/Does Y*	The information in Y is similar to the information in X	*Mary is careless and so is her sister.*
Time	*After X, Y/ Y After X;* *Before X, Y/ Y Before X;* *When X, Y/Y When X;* *X At The Same Time as Y*	The information in Y relates temporally to the information in X	*After he had walked for another hour, he felt unbearably thirsty.*
Location	*X (Exactly/Just) Where Y*	The information in Y relates spatially to the information in X	*He found the map exactly where he had left it many years before.*
Cause	*X Because/Since Y* *X Because of Y*	The information in Y is the reason why the information in X holds	*Many teenagers join gangs because they need to fill emotional needs.*
Condition	*X On Condition That /(Only) If Y*	The information in Y is a condition for the information in X to hold	*Entry is granted on condition that you do not work full time.*

Table 2. A preliminary list of discourse relations (Ruiz de Mendoza and Gómez González, 2014)

To our knowledge, this is the first attempt to classify discourse constructions according to the meaning relation they generate. Unfortunately, the authors have not been able to provide enough specific details as to what constructions exploit each discourse relation in question, and it must be assumed that there are more discourse relations that have not been identified yet. For this reason, we have undertaken the task of refining this initial classification with the purpose of further developing current knowledge on discourse structure. As a collateral result of this study, we also endow the LCM with higher descriptive adequacy for its forth level.

2.5 Family resemblance relations among discourse constructions

All construction grammar approaches agree that constructions, including those at discourse level, are organized into networks that capture relationships among them. However, these networks are understood differently depending on the analytic perspective taken by the linguist.

Some approaches conceive networks as hierarchical trees; a root, which is the most general pattern, is inherited by all its descendants, each of which is a more specialized and narrowly applicable variant (e.g. Michaelis & Lambrecht, 1996). This type of approach is generally followed by functionalist schools.

By contrast, cognitivist approaches to language defend the existence of partial inheritance relationships for which hierarchical networks would not fit. In such cases, a network of constructions based on *family resemblance* connections that hold among the constructions seems more appropriate. This *family* notion has been widely and successfully used as an organizing component in the domain of lexical meaning.

Recently, its use has been extended to account for similarities and differences among constructions of any kind. Some examples are found in Gonzálvez-García (2009b, 2011) for the case of subjective-transitive constructions (e.g. *I find her so sweet, He considers you a friend, We all thought him dead*), Goldberg and Jackendoff (2004) for the resultative constructions (e.g. *She shot him dead, He molded clay into a bird, She kicked him black and blue*); and Del Campo (2011a, 2013) for different directive constructions (e.g. *Will you help me?, Help me, will you?, Do you think you could help me?,* etc.). In this respect, the unifying element in the network is not some root construction, but a functional (or conceptual) space onto which given constructions can be mapped (Kiss & Alexiadou, 2015). This is precisely the approach taken in this dissertation, as we consider family-resemblance relations necessary for a full description and categorization of constructions at discourse level. This type of network is essential in order to understand, for example, how *concessive* constructions display a combination of features characteristic of both *addition* and *contrast* constructions, how a construction can have several meanings despite having the same form (i.e. constructional polysemy), or the cases in which two apparently very different constructions are used with the same function.

3

Research methodology

This chapter introduces and contains a discussion of the methodological approach and research design best suited to examining the research questions set out in chapter 1. Given the importance of design and validity in the choice of research instruments, this section includes an illustration of the specific process of data collection, followed by an overview of the key methods used for data analysis.

The importance allotted to methodological issues has steadily grown in linguistic studies. Much of the latest work in the field agrees on the claim that linguists must focus not only on natural language itself, but also on the methods for observing it (Janssen & Redeker, 1999; Schütze, 1996).

In the discussion on the methodology involved in gathering linguistic data, some linguists defend the use of introspective techniques as the most appropriate to

investigate the intricacies of language. However, these language intuitions must be accompanied by a methodological concern to provide the investigation with the necessary scientific rigor. In our investigation on discourse constructions, we seriously considered the possibility of introducing native-speaker judgments. With the help of Professor Raymond Gibbs, at the University of California in Santa Cruz, we designed several questionnaires which aimed to offer a psychologically realistic account of the existence of *complementary alternation* constructions at discourse level. The aim was to produce evidence that such constructions are real in the speakers' minds. Those questionnaires included questions to assess, for example, how entrenched a given constructions was in the speakers' minds, if there existed any difference between two apparently similar constructions, or questions to see if the speakers really understood the meanings of the constructions in question. Unfortunately, this study did not throw sufficiently reliable results. The main problem was that we were unable to assess how truthful the respondents were being, or if they were putting enough thought into their answers. The questionnaires also made it difficult for the respondents to think within the full context of the situation provided in the questions, and what is more, they read differently into each question and therefore replied based on their own interpretations of the question, which tinged their answers with an undesirable level of subjectivity. For these and other reasons that are not relevant for the present study, these questionnaires had to be discarded.

However, there is another way in which the reliability of a linguistic study can be enhanced. Technical innovations over the last century have made large electronic corpora available for researchers. A linguistic corpus is a very large collection of real examples of a language from a wide range of sources. These examples can be retrieved from a variety of written texts, or they can be oral samples that have been

transcribed. As such, a linguistic corpus can become a very useful tool to test aspects of linguistic categories empirically and to reveal and contrast features of complex linguistic categories. One of the many advantages of computerized corpora is that they are readily accessible for researchers to study everyday speech. Defenders of corpus linguistics particularly exalt their potential to yield highly interesting, fundamental, and often surprising new insights about language. For example, a computerized corpus provides variety in mode of conversational exchange and contains language samples from all the possible linguistic genres. Not surprisingly, it has become one of the most widespread methods of linguistic investigation in recent years. However, corpora are finite collections of texts, and as such, they cannot provide an adequate representation of human language, which is infinite. An additional problem is that simply attesting usage patterns in a corpus does not always provide enough insights into how such patterns make meaning in their contexts of use. Much manual work based on the analysist's own intuition is often necessary.

All in all, in this dissertation we contend that both approaches are not incompatible and that a combination of both inductive and deductive methods are in fact necessary. The aim in this respect is to reduce the potential danger of an exclusive reliance on a single approach. This methodological combination also leads to a greater understanding of underlying issues and allows for thorough analysis of phenomena from different perspectives. In this sense, the use of computerized corpora has allowed us to elicit data from reliable sources to test the validity of the hypothesis that we have formulated. In combination with manual work, it has proved helpful for the analysis of the range of meanings that any given discourse connective or marker can profile. In fact, we strongly believe that the description of such particles needs to be implemented by the use of real examples, for which the corpora demonstrates to be more than

adequate. Therefore, we agree with Labov that "data from a variety of distinct sources and methods, properly interpreted, can be used to converge on right answers to hard questions" (Labov, 1972, p. 118).

The following section describes the different kinds of corpora from which we have drawn the data for a contextual analysis of the different discourse markers under study. Then, there follows a brief explanation of the application of the Langackerian notions of meaning base, profile and active zones for the classification of constructions at discourse level. Finally, we describe the steps followed in the analysis and treatment of the data extracted for the present dissertation.

3.1 Computerized corpora

This section introduces the reader to the notion of electronic corpus and provides a short description of the corpora used for the qualitative exploitation of naturally occurring linguistic data.

Following the distinction made by Tognini-Bonelli (2001) between corpus-based and corpus-driven studies, this dissertation takes a corpus-based approach, as it uses the corpora in order to corroborate previously formulated hypotheses. For this study, a corpus-driven methodology would not be useful, since it is not intended to verify the probability of occurrence of phenomena generated in the speech, or to analyze the way in which speakers use these constructions. These types of investigations are more typical of quantitative investigations that take different variables into account.

Instead, the ultimate goal of this dissertation is to understand the ins and outs of discourse, the potential meaning of each marker, and how differences in meaning between markers generate distinct constructs. This goal cannot be achieved by basing

ourselves on statistics. Thus, the extraction and analysis of the data for this dissertation has been manual and qualitative, not quantitative, based on real examples.

In this vain, we have made use of the interface developed by Davies (2004, 2008) to extract data from the British National Corpus and the Corpus of Contemporary American English, which has been complemented with WebCorp searches and with information extracted from the dictionaries of the English language described below.

3.1.1 The British National Corpus (BYU-BNC)

The British National Corpus (BNC) is a corpus of contemporary British English of 100 million words of written (90%) and spoken (10%) English, drawn from a wide range of sources and different genres (i.e. journals, newspapers, popular fiction, letters, essays, recorded transcriptions, radio shows, etc.). It aims to be a representative example of the British contemporary written and spoken English. However, there have been no additions after 1994 and it is restricted to just British English, which makes this corpus more limited than the COCA, described below. For many years, users of the BNC could do simple online searches for the BNC from the BNC website at http://www.natcorp.ox.ac.uk/index.xml. However, the Sara software which underlies this service is no longer supported and the service has been withdrawn, forcing users to use the BYU-BNC interface by Davies (2004).

3.1.2 The Contemporary Corpus of American English (COCA)

The Corpus of Contemporary American English (COCA) contains more than 520 million words of text and is equally divided among spoken, fiction, popular magazines, newspapers, and academic texts. It consists of exhibitions of contemporary American English (1990 to present) and has a homogeneous distribution regarding the dates and types of records of the texts (oral English fiction texts, magazines, newspapers and

academic texts). Compared to the BNC corpus, its most attractive characteristic is that it is the largest freely available corpus of the English language and that it continues developing. It also allows researchers to compare word frequencies and provides important information regarding collocations.

3.1.3 WebCorp

WebCorp ("WebCorp: The Web as Corpus") is not a language corpus per se, but a language search engine created by the Development Unit for English Studies (RDUES) at the Universities of Birmingham and Liverpool. This tool uses the World Wide Web as a corpus, displaying the searched results in a linguistically useful form. WebCorp currently finds words, phrases and discontinuous patterns through word and wildcard searches, with various options for filtering information as well as for output format. Its biggest potential is that it is constantly being updated and expanded and that it allows us to capture aspects of the language which are too rare or too new to be evidenced in the previous two corpora. Another interesting characteristic of this tool is that the development of WebCorp has been founded on user feedback and that it is therefore in a constant state of iterative development and testing. However, the major drawback of this tool is that the composition of the corpus changes over time, and thus, the examples the corpus provides can sometimes be ephemeral.

3.2 Dictionaries as corpora

Monolingual dictionaries represent another great tool to find instances of uses of a certain word in context, since besides definitions, they also include use examples for every entry. For the present research, we have used the paper version of the *Collins*

Cobuild Dictionary (Sinclair, 1987) (henceforth, CCD) and the electronic versions of the dictionaries listed below:

❖ *Cambridge Dictionary Online* (henceforth, CDO) is the free online dictionary of Cambridge University Press, one of the most popular dictionaries and thesauri. It includes meanings and definitions of words in English with examples, synonyms, pronunciations and translations.

❖ *Oxford Dictionaries Online* (henceforth, ODO) is a website produced by the Oxford University Press publishing house, a department of the University of Oxford, which also publishes a number of print dictionaries. It includes the Oxford Dictionary of English, *New Oxford American Dictionary, Oxford Thesaurus of English, Oxford American Writer's Thesaurus* and grammar and usage resources. It is updated every three months, and its definitions are informed by the evidence of the language collected by thousands of 'readers', scholars and others from the mid nineteenth century to the present day.

❖ *Merriam-Webster Dictionary Online* (henceforth, MWO) is the leading and most-trusted dictionary of American English with a long tradition of more than 150 years.

❖ *Dictionary.com* and *Thesaurus.com* is the world's leading online resource for English definitions, synonyms, word origins, audio pronunciations, examples, slang phrases, idioms, word games, legal and medical terms, and more. The same website gives access to a monolingual and bilingual dictionary, and to the thesaurus dictionary with over 3 million synonyms and antonyms, thus offering the possibility to filter search results by relevance, word length, and complexity.

❖ *WordReference.com* (henceforth, WR) is a free online dictionary created in 1999 by Michael Kellogg, in an effort to provide free online bilingual dictionaries and tools to the world. The site has become one of the most-used online dictionaries, and provides very useful English bilingual dictionaries (English-Spanish, English-French, English-Italian, Spanish-French, and Spanish-Portuguese).

3.3 Google searches

Google has been a very useful complementary tool for the extraction of the data, since it provides novel, updated and fresh instances that the other corpora do not include. However, we have been very careful at the time of selecting these examples from the Web, choosing utterances written by English native or highly competent speakers of English. We have also restricted the extraction of examples from this source to the minimum, favoring the use of the previously mentioned corpora and dictionaries. For these examples, we have included the website from where the example was extracted for the reader's convenience.

3.4 Langackerian notions of meaning base, profile and active zones for the classification of constructions at the level of discourse

The analysis of the semantic characterization of discourse constructions presented in this dissertation is based on Langacker's (1987, 1999) by now classical notions of base, profile and active zones. These notions, which are now part of the analytical apparatus of the LCM, have allowed us to classify constructions at discourse level in a useful manner.

Langacker understands concepts in terms of profile/base relationships. The profile of a concept is whatever it designates (i.e. a "table" is a piece of furniture that has a flat top and usually one to four legs). Besides, each concept can be understood differently depending on the background knowledge associated with it (i.e. a table is understood differently in an office, in a restaurant, or in a kitchen).

Now, within this framework, an active zone is a relevant part of a meaning characterization with respect to a domain or relation, and it may or may not coincide with the profiled entity. For example, the word *table* in "I saw the table" and "Termites infested the table" profiles (or designates) the same entity (a table, whether in a kitchen, an office or in the carpenter's workshop). But this entity is interpreted in terms of different active zones; the visible aspects of the entity in terms of size, shape, color, etc., on the one hand, and the non-visible wooden matter that the termites feed on, on the other hand. These are some relevant parts of the meaning characterization that the term *table* has, which Langacker referred to as the active zones within the profiled concept.

Departing from these notions, our investigation proves that for every conceptual characterization, whether high or low-level, we can postulate the existence of profile/base relations and of active zones (or relevant meaning facets) within profiles. Therefore, discourse constructions that share the same meaning base can be catalogued within the same constructional family. Thus, the constructions *X Let Alone Y, X Much Less Y, X Still Less Y*, etc. can be grouped into the same constructional family because they all designate the same relation in the world (i.e. they all share the same meaning base): X and Y are two different states of affairs such that Y adds to X on the basis of a subjective speaker's judgment. In turn, the constructions that belong to a constructional family profile this meaning base from different angles, allowing us to further classify them according to the subtleties in meaning that they display.

In sum, when different constructions exploit the same profile-base relationships, we can say that they belong to the same constructional family. That is, they serve very similar discourse functions, but introduce subtle changes in focal structure that allow

us to further classify them and explain why a given construction may be allowed in a certain context, while a similar configuration may not be.

Finally, within each constructional family, we have found different degrees of profiling the same meaning base. Some of these constructions seem to be more neutral than others. For the purposes of this investigation, we consider the most neutral member of a constructional family to be the one that profiles the base the least and captures the highest number of features of the base (i.e. the meaning base of the construction and the meaning the construction profiles are almost identical). The construction *X but Y* almost does not profile the base, and this is why this meaning configuration adapts its meaning to many different contexts. From this perspective, it will be easy to understand that the term *neutral* is to be distinguished from the term *vague*: the latter involves the maximization of the breadth of a profile through non-specificity, whereas the former, in this context, requires the maximization of profile-base co-extensiveness, both of which are necessarily well defined.

3.5 Steps followed in the analysis of the data

This section describes the major steps followed in the analysis and treatment of the data extracted for the present research.

The development of this dissertation is guided by the general methodology of the research project in which it is framed. We strongly believe in the adequacy and objectiveness of this methodological approach, even though we acknowledge having started from our personal intuitions.

In the linguistic part, whose objective is to identify, describe, hierarchize and classify families of discourse constructions, we proceeded as follows:

Given the difficulty to identify idiomatic constructions, on a first stage we decided to start from a thorough examination of those constructions that had already been discussed in the Construction Grammar literature. We started by studying the *Let Alone* construction (Fillmore et al., 1988; Toosarvandani, 2009a, 2009b, 2010), which allowed us to list its central semantic and formal features. Then, we looked for connectors that relate to *let alone* by looking for synonyms in the dictionaries and thesauri listed above. Our intention was to count on as many duly contextualized occurrences as possible of complementary alternation markers, with a view to determining their degree of synonymy. However, there are certain forms in language that are used to encode a complementary alternation meaning relation between two elements that do not appear in dictionaries as discourse connectors. For this reason, we decided to complement this search by following our mother tongue intuitions in Basque and Spanish to enrich the original list of connectors, looking for expressions that were used in similar contexts[5]. This comparison revealed new forms to connect parts of discourse in similar terms that were also valid for the English language and that had not been considered by most dictionaries.

Once that we had a set of connectors that were related in meaning, the next step was to compare definitions and use examples as provided by dictionaries. At this point of analysis, the CCD proved to be the most useful resource from among the dictionaries consulted, since it offers an example for almost every meaning of every word. To our surprise, the definitions provided by these dictionaries treated many of the connectors as interchangeable. By way of illustration, in the *Collins Cobuild*

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[5]The author of this dissertation is a bilingual speaker of Basque and Spanish. This personal skill provided a highly convenient resource. Sometimes two different languages have developed the same (or at least similar) constructional devices within a given meaning dimension, with only slight changes in meaning and use frequency. Finding connectors in Basque and Spanish that fall within the analytical scope of the target family of constructions has often prompted for very specific searches with productive results.

Dictionary, the *Merriam Webster Dictionary Online* and in the *Cambridge Dictionary Online*, *although* is defined as a "conjunction that is the same as *despite the fact that*" and according to these three dictionaries again, *still* is the same as *nevertheless*.

However, even preliminary small-scale searches (of not more than 50 occurrences) in the corpora listed above showed that such full synonymy was not the case. For some contexts, one connector was productive while others either did not occur or, if they occurred, they did so with slightly different meanings. This observation led into considering the possibility of applying the Langackerian notion of active zones within a given profile (or designatum) to explain the subtleties of meaning of what could in essence be regarded as the same conceptual construct.

Broader corpus searches (ranging between 100-200 occurrences) confirmed the need to identify specific active zones within the various meaning profiles arising from each connector. At this stage, it was necessary to find ways to explore whether a connector was a better choice than another for a given usage context. One way to do so was through the manipulation of examples by changing part of their formal configuration and then observing if such a manipulation still yielded a correct linguistic expression. Once we identified a potentially valid configuration, we tested its acceptability against larger amounts of data by looking for it in the corpora. Finding the same formal patterns carrying comparable meaning implications was a guarantee of having produced a viable constructional variant (a different active zone for the same profile). This way, we corroborated the existence of an initially subjective construction with empirical evidence.

This technique allowed us to come across interesting constructional variants. For example, changing the polarity of the *Not X Nor Y* configuration (e.g. *I won't drink that*

wine, nor pay for it) to *X nor Y* (**I will drink that wine, nor pay for it*) resulted in an unacceptable pattern. However, when applying this polarity change to other constructions (e.g. *X Let Alone Y, X Never Mind Y, X To say Nothing of Y*), it became evident that it was possible and that it had different meaning consequences. For example, the interpretation of the sentence *I always cry watching sad films, let alone reading their scripts* is not so much a question of one action making it more likely for the speaker to cry as one of such an action intensifying the speaker's crying. However, *I never cry watching sad films, let alone reading their scripts* treats reading sad film scripts as less likely to make the speaker cry than watching them. What in the negative-polarity example is less likely to cause the speaker to cry (reading the scripts) is what in the positive-polarity example intensifies the speaker's crying. This characteristic of the positive-polarity examples blocks the use of *much less* (**I always cry watching sad films, much less reading their scripts*), while it is possible in its negative counterpart (*I never cry watching sad films, much less reading their scripts*).

At this stage, the methodology we followed consisted in identifying as many constructions as possible for the complementary alternation meaning relation, and describing the constraints that operate in the processes of interaction and lexical-constructional integration for each construction in the family. We had identified the complementary alternation constructional family and were then ready to offer a classification of such constructions according to the meanings each of the configurations within the family could profile, establishing meaning relations among the different configurations that conformed this preliminary constructional family.

We were confident that we had found the proper methodological strategy to classify discourse constructions in general, and we were eager to prove so by applying the same methodology for the identification of other constructional families. We

focused then on discourse connectors whose main function was to contrast two given elements. While in *complementary alternation* constructions the alternates are not exclusive of each other, as in *No one insulted him or did physical harm to him,* in *contrast* constructions both alternates are presented as antithetical, as in *Either you win or you lose.* Following the same steps of analysis, we formed the *contrast* constructional family and identified all the possible uses of each of the constructions in question. But we discovered that certain connectors do not simply present both elements as antithetical or as not exclusive of each other; there are some connectors that serve both purposes at the same time, by presenting two elements as opposites but not exclusive of each other, as in *Some living composers are more dead than alive.* We had therefore identified a third group of constructions that we labeled *complementary contrastive* constructions.

Once we had identified and classified a reasonable amount of constructions, it was time to develop the computational implementation of the project, which involved being able to carry the constructional findings over to a machine-readable format, thus complying with the ins and outs of the well-known computational feasibility requirement (Ruiz De Mendoza Ibáñez, 2014; Veale, 2006). This required converting or adjusting our linguistic descriptions to an adequate metalanguage. COREL, which is the metalanguage developed for world-knowledge descriptions within FunGramKB (the knowledge base designed for natural language processing that will be described in chapter 7), has proved sufficiently flexible and efficient in capturing subtle meaning nuances that are usually ignored in the computational literature. Its versatile nature and applicability to fine-grained constructional description has been evidenced in a large number studies (Luzondo Oyón & Ruiz De Mendoza Ibáñez, 2015, 2017; Mairal Usón, 2015).

One requirement of our work in this respect was to design an inventory of tags that would help defining and identifying each subgroup of constructions within each constructional family. All labels had to have a conceptual correlation and had to be included in the inventory of conceptual units provided by COREL. This inventory would be used to populate the level 4 module (discourse level) of FunGramKB consistently and coherently around a unified representation system, and it was also useful to name the different subgroups of constructions that had been identified within each constructional family. So, for each identified construction, the following attributes were defined:

- The name of the constructional subgroup to which the constructions belong within each constructional family, related to the particular meaning these constructions profile (i.e. *reinforcement, probability judgement alternation, enhancing demonstrative alternation*, etc.).

- Structural aspects involved in the construction.

- Definition of the meaning that is inferred with each family of constructions. The definition had to be a representation compatible with its computer use and had to be based on the COREL metalanguage.

- Formal restrictions that activate the meaning of the construction in question.

- Examples in English.

This dissertation not only represents a big improvement in the classification and categorization of discourse constructions as it puts forward a new methodological approach for their classification, but it also reveals the existing connections between the constructional families analyzed, as they form part of a contrast continuum.

4

Complementary alternation constructions

This section examines the essential features of the family of what Mairal and Ruiz de Mendoza (2011) have termed *complementary alternation* discourse constructions in English. As explained in the introduction, complementary alternation is a semantic relation where the component parts are not exclusive of each other, as in *No one insulted him or did physical harm to him*.

According to Mairal and Ruiz de Mendoza (2011), the concept of complementary alternation is to be understood in paradigmatic contrast with other semantic extension relations such as meaning addition (e.g. *She is an excellent mother and a good neighbour too*) and meaning exception (e.g. *He believes there is no genius other than himself*). This contention is only partially correct. The complementary alternation has a clear additive ingredient where the assumption expressed by one of the alternates is endowed with greater strength (thus receiving focal prominence) than the other. This

can happen in two ways. In one, the alternates negate what the speaker believes are someone's assumptions (e.g. *I would never date, let alone marry, someone as rude as you*). In the other, the alternates are positive (e.g. *I always cry watching sad films, let alone reading their scripts*) and simply add information where the second alternate is more emphatic than the first. Furthermore, in the former situation, the first and second alternates are in a logical cause-consequence relationship where, if the first were the case, that would open the door for the second to be possible. Negating the first logically precludes the second from ever taking place.

These uses are marked by such connectors as *let alone, much less, even less, never mind, not to mention,* and *to say nothing of*, which structure a special group of constructions within the complementary alternation family.

Other cases of complementary alternation would be provided by the configurations in *Table 3* below. However, from all these configurations, only the *X Let Alone Y* construction has received in-depth treatment in the literature (cf. Fillmore et al., 1988).

Neither/Not X nor Y	Not X to say nothing of Y	X needless to say Y
Not X even less Y	X even Y	X never mind Y
Not X let alone Y	X go further Y	X not to mention Y
Not X much less Y	X in fact Y	X not to say Y
Not X never mind Y	X in particular Y	X still Y
Not X not even Y	X it goes without saying that Y	X to say nothing of Y
Not X not to mention Y	X let alone Y	X to say the least
Not X still less Y	X leave alone Y	

Table 3. Complementary alternation constructional family

Extensive corpus evidence reveals that all these constructions are semantically related and that therefore can be grouped into what cognitive linguists call *family*

resemblance relations (cf. Taylor, 1995) as explained previously in chapter 2. The present dissertation offers the reader preliminary work identifying such uses and determines relevant meaning differences among them.

Following Langacker's (1987) distinction of meaning base, profile and active zone for the classification of discourse constructions, we have identified the common grounds or *meaning base* of these constructions. Taking into account the data in our corpus, for all these configurations X and Y are two different states of affairs such that Y adds to X on the basis of a subjective speaker's judgment.

Dictionaries[6] often treat the connectors used in these configurations as largely (or even fully) equivalent (c.f. No one insulted him, let alone/much less/still less did physical harm to him; She has produced an amazing musical project, not to mention/to say nothing of her new DVD). However, these constructions differ from one another in subtle ways, allowing us to identify the uses of these connectors where they are not necessarily interchangeable. Based on these meaning distinctions, we propose a classification of complementary alternation discourse constructions into five different subgroups of constructions, depending on the meanings they profile: *neutral complementary alternation* constructions, *reinforcement* constructions, *probability judgment alternation* constructions, *enhancing* constructions, and *demonstrative alternation* constructions (see *Table 4* below). This classification will therefore explain why certain constructions are allowed while others are blocked for a given context.

What follows is a brief description of these subgroups of constructions and a detailed analysis of each of the configurations that constitute this constructional family.

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[6]The dictionaries consulted were the *Collins Cobuild English Dictionary*, the *Cambridge Dictionaries Online* and the *Merriam Webster Dictionary Online*, among others.

CONSTRUCTIONAL PROFILES	DESCRIPTION	IDENTIFIED CONSTRUCTIONS		EXAMPLES
Neutral complementary alternation constructions	They link two or more negative alternatives that complement each other or one another.	Not X nor Y Neither X nor Y X never mind Y		- He has **not** resigned, **nor** has he been sacked. - I always cry watching sad films, **never mind** reading their scripts.
Reinforcement constructions	They add extra reinforcing information about the state of affairs the previous statement applies to, thus making the extra part of the construction (Y) surprising because it was not expected/likely to happen.	X even Y X in fact Y		- All the time I was there, I stayed inside the house. **In fact**, I never left my room. - The hotel had everything. There was **even** a swimming pool.
Probability judgment alternation constructions	They emphasize that one state of affairs is, or should be, less likely to happen than another state of affairs.	Not X even less Y Not X let alone Y Not X much less Y Not X never mind Y	X in particular Y X leave alone Y X still less Y	- I wouldn't call him, **let alone** invite him to my house. - There should be no corporal punishment anymore, **in particular** against children.
Enhancing constructions	They emphasize that what has just been said could be greater or more surprising than what has just been suggested.	(Not) X not to mention Y Not X not even Y Not/never/ever X to say nothing of Y X go further Y X let alone Y	X never mind Y X not to say Y X still Y X to say nothing of Y X to say the least Y	- Until the accident, I led the very busy, **not to say** frantic, lifestyle of a criminal lawyer.
Demonstrative alternation constructions	They add more information or examples about the X part of the construction to emphasize that some information is self-evident.	(Not) X to say nothing of Y X it goes without saying that Y X let alone Y	X needless to say Y X never mind Y X not to mention Y	- A free fall from 130 feet will most probably kill you, **not to mention** from 13.000 or 130.000. - With this knee injury I can't walk, **never mind** run.

Table 4. Classification of complementary alternation constructions

4.1 Neutral complementary alternation constructions

Neutral complementary alternation constructions comprise the configurations *Neither X nor Y*; *Not X nor Y*; and *X never mind Y.*

These constructions are used to link (at least) two negative alternatives that complement each other. We have labeled this subgroup of constructions *neutral complementary alternation constructions* because these configurations hardly profile the base from which they capture a large number of features.

The constructions *Neither X nor Y* and *Not X nor Y* are simply formal variants of the same meaning configuration, which is why we have listed this construction as *Neither/Not X nor Y* construction in *Table 4* above. Let us now consider each of these configurations in detail.

Among the *neutral complementary alternation* configurations, the most neutral is *Not X nor Y*. This construction has two possible interpretations depending on whether it is obtained compositionally or not. In its compositional interpretation, the construction simply adds a negative proposition Y to an equally negative (and conceptually related) proposition X (e.g. *He has not resigned, nor has he been sacked*). In its non-compositional interpretation, there is an extra element conveying the speaker's incrementally negative stance towards the events or situation depicted in both propositions. For example, in *I won't drink that wine, nor pay for it*, the idea that the speaker is not willing to drink a certain type of wine is complemented with the idea that he is also unwilling to pay for it. In some contexts, and with the cooperation of stress prominence on the second clause, the overall meaning effect of this operation is one of intensification of the speaker's negative attitude towards the state of affairs under

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scrutiny. When that happens, the *Not X nor Y* configuration shades off into the *X let alone Y* construction. Even though the starting point for those two constructions is different, at the end they converge on a pragmatic basis. The same explanation applies to the sentence *Neither he nor she understood what was happening*, which conveys the speaker's negative stance towards the situation described. Similar patterns can be observed in examples (1) and (2) below:

(1) The play is **neither** as funny **nor** as disturbing as Tabori thinks it is. (CCD)

(2) She **neither** knows **nor** cares! (ODO)

In turn, the construction *X Never Mind Y* suggests that both elements (X and Y) represent two alternatives that are equally unlikely to happen. As such, the construction literally means that the circumstances do not matter because both elements are equally likely to happen. This feature explains why certain contexts block the use of the connector *much less* which invariably encodes the idea that the Y element is less likely to happen than X, as in *I always cry watching sad films, let alone/never mind /*much less reading their scripts.*

In any case, using the construction *X never mind Y,* the speaker endows the Y element with greater prominence, or perceives Y as more valuable than X. In example (3) below, the fact that the *disease* has a big life-threatening potential is considered more important than the fact that the *Britons* are unaware of its existence. In (4), people under the age of 25 should be able to identify a *Renaissance masterpiece* or an *Andy Warhol*, but the first is perceived as a greater work of art than the second. This construction, then, serves to link two alternatives, but is not neutral to the same extent as *Neither X nor Y*.

(3) Specialists are worried by a recent survey showing that most Britons are still totally unaware of the disease, **never mind** its life-threatening potential. (BYU-BNC)

(4) The show is custom-built by Janet Street-Porter's rapidly expanding youth and entertainment empire, and is aimed squarely at people under the age of 25 who might have difficulty identifying an Andy Warhol, **never mind** a Renaissance masterpiece. (BYU-BNC)

4.2 Reinforcement constructions

Reinforcement constructions comprise the *X even Y* and *X in fact Y* configurations. These constructions are used to describe or reflect on the state of affairs designated in Y, when Y was not expected to take place from the perspective of the information in X, or when something is already considered in X, but there is some reason to emphasize its existence. The result is that the Y statement prevents someone from thinking something that may have followed logically from what has just been said in X. This is achieved by adding extra reinforcing information in Y about what X communicates. This is done in the form of surprise when the conceptual polarity of the proposition is positive, or in the form of indignation when the conceptual polarity of the proposition is negative.

The intention behind the use of these configurations is not to surprise the hearer, but to make explicit the speaker's own reflection about whatever is the case in the world.

Using the construction *X even Y* the speaker expresses a state of affairs in X that he finds surprising and adds one more informational element (Y) that reinforces the information contained in X, as the following examples illustrate:

(5) The hotel had everything. There was **even** a Jacuzzi in every room![7] (Altered example for clarification)

(6) I shall give the details to no one, not **even** to you. (CCD)

In example (5) the speaker shares his happiness because the hotel where he stayed had all the amenities he needed for a great vacation. Using the construction *X even Y* the speaker implies that among the facilities a hotel is expected to have, the hearer may not have the possibility of having a Jacuzzi in every room in mind. The fact that this hotel had one prevents the hearer from thinking that it was a common hotel and makes it extra valuable. In (6), the speaker prevents the hearer from thinking that he may make an exception by sharing the details of the matter in question with him, despite their special relation.

In turn, the construction *X in fact Y* is used to emphasize the truthfulness of X by concentrating on a detail contained in Y that proves X real or that gives examples of how real X is, as in *All the time I was there, I stayed inside the house. **In fact,** I never left my room* (COCA, 2012).

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[7]Original example extracted from the CCD: "The hotel had everything. There was even a swimming pool".

4.3 Probability judgment alternation constructions

Probability judgment alternation constructions comprise the following configurations: *Not X even less Y; Not X let alone Y; Not X much less Y; Not X never mind Y; X in particular Y; X leave alone Y;* and *X still less Y.*

These constructions are used to emphasize that one state of affairs is, or should be, less likely to happen than another state of affairs. In most of these constructions two elements are compared in a scale of probability, where Y is less likely to happen than X.

In the constructions that profile this meaning, the speaker presupposes that the hearer thinks that Y may happen. That is why he ventures to mention that X will not happen in the first place. Most of the constructions in this group use *less* to indicate that Y occupies a lower place in that scale of probability-comparison. This use of quantity to signal likelihood has an experiential grounding, since greater quantities of objects or of a substance often correlate with the greater likelihood that the objects or the substance will be noticeable. That is, the more there is of a substance, the greater its height, and the easier to be noticed. For example, when we pour water into a container, we see the level rise as we add more water. Within Cognitive Linguistics, Lakoff and Johnson (1999) have postulated comparable correlations in other domains, and psycholinguists like Gibbs (2006a, 2006b, 2006c, 2011) have provided empirical evidence in favor of experiential correlation leading to the conflation of different concepts in the mind. Conceptual conflation is the reason behind speakers using initially disparate concepts as if they were the same, as in *Prices are soaring* where *soaring* involves an increase in quantity. It is because of this conflation between quantity, height and noticeability that *much less*, which literally expresses quantity, can

be used to express probability. Many connectors used in these constructions convey a negative stance, which explains their tendency to be used in combination with negative *if* conditionals (*If there isn't enough money to buy food, much less/?let alone to buy presents*) with preference over other connectors like *let alone* that can also profile other meanings within the complementary alternation group of constructions. All in all, the configurations that profile this probability meaning can be seen in *Table 4* above.

Some of the connectors used in these constructions have never been listed in some of the most prestigious dictionaries of English. This is the case of *even less*, which is not included either in the CCD or in the CDO. This makes us wonder why, on the contrary, they both do include *much less* among their entries.

We will begin the analysis of these constructions with the configurations *Not X even less Y, Not X much less Y,* and *X still less Y*. These three constructions focus on the possibility of going up or down on a scale of probability where a given state of affairs might be more or less probable. This factor explains the impossibility of using these constructions in contexts where such a scale does not exist. Compare, in this respect, the following examples:

(7) It is impossible to change the way Australians think about poverty, **let alone/never mind/much less** extreme poverty.

(8) How do you change the way Australians think about poverty, **let alone/never mind/*much less** extreme poverty?

Example (7) admits the use of *X much less Y* because the probability that Australians will change the way they think about poverty in general is higher than the probability that they will change the way they think about extreme poverty. Thus, an

imaginary scale of probability or likelihood is created in the speakers' minds when they talk in these terms (see *Figure 2* below).
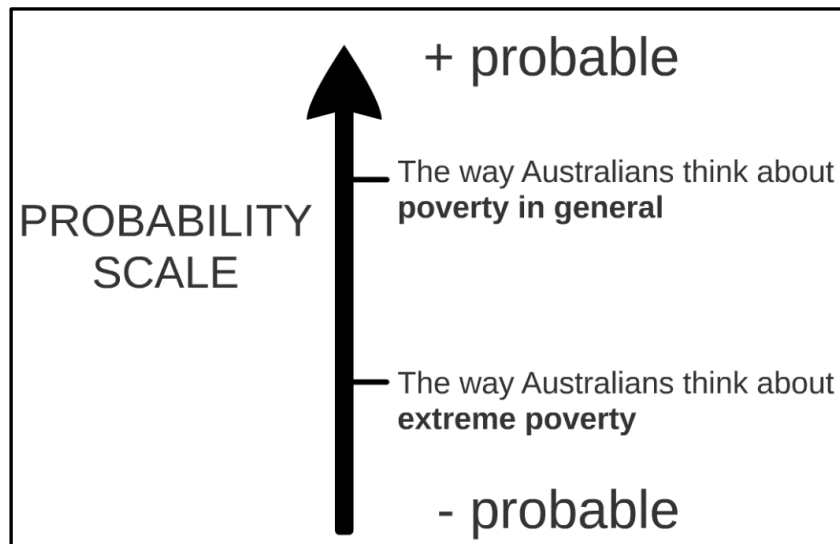
Figure 2. Probability scale in the constructions Not X even less Y, Not X much less Y *and* X still less Y

In contrast to example (7), in example (8) such a scale is not generated, as the speaker simply wonders about the possibility of changing these attitudes without focusing on which is more or less probable to change.

Common to these constructions is the fact that, while others can either be positive or negative, the word *less* endows these with a necessary negative connotation, i.e. the X part of the construction is always formulated in negative terms. This is so due to the inherently negative axiology arising from our common experience of regarding small amounts as less beneficial than large amounts. This endows the adverb *less* with an axiologically negative shade of meaning, which explains the impossibility of finding a context where *even less, much less*, and *still less* are used positively. Since they always convey a negative stance, they are never used to add more information. This particular feature also explains the tendency of these constructions to be used in combination with negative *if* conditionals (*If there isn't enough money to buy food, much less/?let alone to buy presents*) with preference over its *let alone* counterpart.

Reconsidering examples (7) and (8) under the light of the above explanation, it becomes apparent that the word *impossible* allows the use of *X much less Y* due to its negativity axiology. This ingredient is not present in (8), which precludes the use of *much less*. The same explanation applies to examples (9) and (10) below. In (9), the negative modal *can't* licenses the use of *even less.* By contrast, (10), which does not use negation in its X part, is not grammatically acceptable:

(9) I can't stand windows, those you can look out of, **even less**. (COCA, 2008)

(10) *I can stand windows, those you can look out of, **even less**. (COCA, 2008)

Notwithstanding these common features, the constructions *Not X even less Y, Not X much less Y,* and *X still less Y* also display some meaning subtleties that will be clarified in the following lines.

According to the data in our corpus, in *X even less Y* there is a relationship between X and Y such that Y is a subtype of, part of, or contained in X. For this reason, if X does not hold, then Y is less likely to happen than X. Using this construction, the speaker prevents the hearer from thinking that Y could be the case. This construction is used to mark the speaker's negative attitude towards X, as can be seen from examples (9) above and (11) below:

(11) Augier's daughter knew nothing about art, **even less** about her business. (COCA, 2001)

In example (9) it is presupposed that, within the domain of windows, there are at least two different types of windows, those we can and those we cannot look out from. In the first part of the construction the speaker makes it clear that he dislikes windows in general, which would lead us to assume that he dislikes all types of windows, no matter how they are. However, using this construction, the speaker creates a scale of

satisfaction placing windows you can look out from in a lower position on this scale. This comparison mechanism results in a greater negative stance towards windows in general. This is also attested in example (11) where it is presupposed that if a person is the owner or creator of a business, she or he is expected to know everything about it. Therefore, not knowing about the business one creates is considered as even worse than not knowing about art, which is also perceived as something very negative (from the speaker's perspective). This is achieved by situating the word *nothing* preceding the comparative *even less*, situating Augier's daughter's knowledge about her own business below the minimum knowledge she could have on the topic. As a result, she is perceived as a complete ignorant in either field.

The difference between *X even less Y* and *X much less Y* is that, in the former, but not in the latter, the speaker presupposes that the hearer thinks that Y is the case. Compare the difference between (11) above, reproduced as (12) below for convenience, and example (13), which we have created for purposes of contrast:

(12) Augier's daughter knew nothing about art, **even less** about her business.

(13) Augier's daughter knew nothing about art, **much less** about her business.

In (12) the speaker assumes that the hearer may erroneously think that Augier's daughter could know at least something about her business. By contrast, this meaning implication is not perceived in (13), where *much less* simply compares the quantity of knowledge Augier's daughter has about art and/or about her business.

The construction *X much less Y* is also sensitive to contexts that require a greater distance between the two alternates than *X still less Y* or *X even less Y* when situating assertions on a scale. On the other hand, in the construction *X still less Y* the contrast between the likelihood of X and Y being the case is marked directly by *still*, which has

an inherent contrastive value arising from its original temporal meaning 'up to or at a specified time'. The nature of the likelihood of Y is thus explicitly contrasted with the nature of the likelihood of X at the specific time that the message is uttered, as evidenced by the examples (14) to (16):

(14) Hubert Gaily was not in the habit of thieving, **still less** of being caught thieving. (BYU-BNC)

Example (14) expresses the near impossibility of someone being caught thieving by situating this scenario on a scale of negative probability. The underlying logic is based on the idea that if X is a pre-condition for Y to take place, and X does not take place, then Y cannot have occurred. Like other concepts, there are many scenarios where possibility and probability correlate, which motivates the mental conflation of both scales. A parallel explanation applies to example (15) below:

(15) On the suddenly silent intercom, no explanation offered, **still less** an apology. (BYU-BNC)

An apology is generally understood as a statement saying that a person is sorry about something or a kind of explanation for the given circumstances. In (15), since nothing was heard from the intercom, it would have been impossible to hear an apology.

In other cases, this construction is used to point out that a given state of affairs does not hold, but no likelihood is implied. This is achieved by mentioning something that is not the case in the X part of the construction and adding something that would not be the case for the situation given under any circumstances. An example is provided by (16) below. In order to emphasize that the object of the situation is simply to get the work done, the speaker in (16) contrasts two possible objects neither of

which is the case. While the first object contained in X could be feasible, the object in Y is impossible according to some stipulation:

(16) The object is not to work hard, **still less** to make yourself miserable. The object is to get the work done. (COCA, 1996)

There are other constructions that do not need the particle *less* in order to convey the idea of a lower probability for something to happen. This is the case of the configurations *Not X never mind Y, Not X let alone Y X leave alone Y,* and *X in particular Y.*

To begin with, the construction *Not X never mind Y* indicates that X is difficult to happen, but that Y is less likely to happen than X, which is why Y is not to be regarded. In essence, the construction literally means that the speaker should not care about Y because it is impossible that Y will happen. Consider the following examples in this respect:

(17) Adriá is a legend in the restaurant world, though most of humanity will never see**, never mind** taste, his food. (COCA, 2011)

(18) With this knee I can hardly walk**, never mind** run. (MWO)

(19) She can't boil potatoes**, never mind** cook a meal. (Google[8])

(20) We have two more home games this week, but if we don't improve on Monday night we can forget the top six, **never mind** the top two. (BYU-BNC)

What all these examples have in common is the fact that they express in an emphatic way that a particular thing is hard (or rather impossible) to happen after mentioning something that is easier to happen. In the logic underlying example (17), it

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[8]http://www.wordwebonline.com/en/NEVERMIND last accessed 16/04/2017, 12:10.

is impossible for anybody to taste a given food if it is not possible to even see it (in the sense of "have access" to it). In (18) running is an activity that requires more effort than walking and in which the knee suffers more, so if the person in question cannot walk due to his knee condition, he will not be able to run either. In example (19) boiling potatoes is perceived as the most basic action in cooking. As the subject is not able to perform this task, he/she will not be able to do anything regarding cooking. Finally, in (20) getting to the top 6 is an essential condition for getting to the top 2.

The constructions *Not X let alone Y* and *X leave alone Y* are very similar in form and meaning. While the former has been analyzed in depth by Fillmore et al. (1988), the second has never been taken into account before in relation to complementariness or contrast, and it is worth noticing that *leave alone* is not even present in some important dictionaries such as the CCD. Other dictionaries like the *CDO* contain this term but do not include its discourse meaning value in its definition.

Fillmore et al. (1988, p. 512) argue that *Let alone* is a coordinating construction, each of whose conjuncts contains a focused element. However, we contend that this is not exactly the case. Rather than simply two focused elements that are conjoined, this configuration presents a conceptual complex where the two focused elements are closely related conceptually, and where one of them is more prominent than the other within the complex. The most prominent element is the one that is less likely to happen and is at the same time regarded as more important by the speaker. On the other hand, the construction presents different degrees of certainty within the complex; the construction presupposes to a certain extent the truthfulness of the X part of the construction, but Y is believed to be completely true. Both parts of the construction are equally informative, and therefore we believe that Fillmore et al.'s contention that "the use of the let alone construction allows the speaker to simultaneously address a

previously posed proposition, and to redirect the addressee to a new proposition which will be more informative" (Fillmore et al., 1988, p. 513) is not entirely correct.

In this dissertation, we advocate for a much simpler explanation for the *Not X let alone Y* construction. This configuration creates a contrast between the X and Y elements, such that the X element is not likely to happen, and the Y element, being more encompassing than X, is less likely to happen than X. The construction conveys the idea that the Y element should not be taken into consideration or should be left apart from the rest of the circumstances because as X does not take place, Y cannot possibly happen. The existing difference in likelihood between X and Y is therefore generated by dissociation. Example (21) below compares the possibilities of some people reading a newspaper with the possibility of them reading a book. It is common knowledge that newspapers are easier reading materials than books. Newspapers are generally shorter than books, their layout gives prominence to headlines and illustrations, which have a summarizing and clarifying function, and the varied nature of the articles in them makes the reading experience more engaging to the public. They are also more accessible in terms of cost and availability, and offer the reader important and generally useful everyday information. By contrast, in this example a book is perceived as a culturally more elevated reading material only accessible to a reading elite. This common knowledge supports the rule-of-thumb (or contingent) logic of example (21), according to which, if someone is not likely to read a newspaper, he or she is even less likely to read a book. Going beyond its literal meaning, this construction conveys the implication that it is a shame that some people are not used to reading anything:

(21) Some people never even read a newspaper, **let alone** a book. (CDO)

Example (22) below also contrasts two possible scenarios where the second, contained in the Y part of the construction, is less likely to happen than the first. The contrasted elements in this case are "satisfaction" and "complacency". While *satisfaction* refers to giving a person *enough* of what is needed to feel pleasant, *complacency* implies more affability where the person in question does not need to try harder to obtain what he/she was looking for. Consequently, if *promises* are *no grounds for satisfaction* it is impossible for them to be *grounds for complacency*, and therefore should not be taken into consideration. Example (23) follows the same pattern of conceptual organization, because if Chaillot never looked at his *libretto* it is impossible for her to have read it:

(22) Even so, such vague promises are no grounds for satisfaction, **let alone** complacency. (BYU-BNC)

(23) I ask myself whether Chaillot ever glanced at his libretto, **let alone** read it. (BYU-BNC)

Consecutively, the construction *X leave alone Y* is, as previously mentioned, very similar to *X let alone Y* as regards its semantics, but it presents more context restrictions arising from the original meaning of the verb *to leave* as causing something or someone to be or remain behind, which is generally perceived to be negative. Metaphorically, it conveys the idea that the speaker dissociates himself from whatever Y conveys, while *let* in *X let alone Y* is more neutral and does not carry the negative connotations of abandoning something behind.

In both constructions, there is figuration, but it works based on two different conceptual strategies that converge on the same meaning. The conceptual strategy behind *X let alone Y* is on figuratively putting Y aside, whereas in *X leave alone Y* the

speaker figuratively departs from Y. *X leave alone Y* is a variation of the *X let alone Y* construction, based on the metaphor EMOTIONAL DISTANCE IS PHYSICAL DISTANCE (i.e. we leave behind what is not dear to us).

The following are some of the few examples that can be extracted of the *X leave alone Y* construction from the BNC and COCA:

(24) This man took her back to her family without any mention, **leave alone** discussion, of the dilemma which confronted her. (BYU-BNC)

(25) He had never dared raise a question to his own father, **leave alone** raise his voice! (COCA, 2005)

(26) In the absence of countrywide elections a national democratic political arena could not emerge, **leave alone** develop. (COCA, 2004)

Finally, the construction *X in particular Y* conveys the idea that X and Y are both true, Y being specially the case. This construction has the effect of narrowing down the scope of a statement by focusing on the Y element of the construction, which is understood to be part of X. This construction can sometimes be replaced by the *X even less Y* construction without apparent differences in meaning when the X part of the construction is formulated in negative terms, as in (27) and (28) below:

(27) There should be no corporal punishment any more, **in particular** against children. (CCD)

(28) There should be no corporal punishment any more, **still less** against children. (Created example for comparison)

The difference between both constructions is that *X in particular Y* concentrates on the possibility of the more precise assumption in Y to be possible, while *X even less*

Y focuses on the idea that X is not likely to happen and Y is less likely to happen than X. In contexts like the one described in (27) and (28), the application of the GENERIC FOR SPECIFIC metonymy allows this compatibility of configurations; as a result, both constructions convey the implication that the described state of affairs should not take place under any circumstances.

But the construction *X in particular Y* also allows its X part to be either positive or negative, while in *X even less Y* the X part of the construction must be formulated in negative terms. Notice the impossibility of replacing (29) by (30) below:

(29) The range now consists of over 150 products, all containing less fat, **in particular** saturated fat, less sugar and salt and, where possible, more fiber. (BYU-BNC)

(30) *The range now consists of over 150 products, all containing less fat, **even less** saturated fat, less sugar and salt and, where possible, more fiber. (Example constructed for comparison)

In (30), the probability scale is no longer present, there is no comparison of probability between the X and Y parts and therefore the construction *X even less Y* is not allowed.

4.4 Enhancing constructions

Enhancing constructions comprise the following configurations, according to the data in our corpus: *(Not) X not to mention Y; Not X not even Y; Not/never/ever X to say nothing of Y; X go further Y; X let alone Y; X never mind Y; X not to say Y; X still Y; X to say nothing of Y;* and *X to say the least Y*.

These constructions are used to emphasize that what has just been said could be greater or more surprising than what was previously suggested, as in *Until the accident, I led the very busy, not to say frantic, lifestyle of a criminal lawyer.*

Many of these constructions refer to the fact that it is not necessary to say whatever the speaker and the hearer have in mind, but they present slight differences in meaning. The following lines will explain the differences among these apparently equivalent constructions.

To begin with, the construction *X not to say Y* has a wider active zone than other similar constructions in the group, because this configuration can activate two different but related meaning zones. When the first meaning zone is activated, the speaker believes that Y is the case, not X, but the speaker states X because it is closer to the hearer's opinion and Y may sound too strong. Activating this meaning zone, the speaker expresses his/her opinion without causing a reaction of excessive hurt or surprise on the part of the hearer. It is often used by speakers as a mechanism to express an opinion in a more objective manner, since exaggeration is always perceived as subjective. In other cases, this construction serves to locate the hearer in an expanded scenario which contains a larger number of elements than expected.

Example (31) below shows the activation of the first meaning zone. The word *busy* implies a schedule with a great deal to do, whereas *frantic* entails a certain degree of chaos that may come from a full schedule of incessant activity. There is a difference in *degree* between both propositions. The speaker chooses this construction to suggest that he is not exaggerating when he says he had a very busy life, busier than what the hearer might have imagined:

(31) Until the accident, I led the very busy, **not to say** frantic, lifestyle of a criminal

   lawyer. (COCA, 2008)

By contrast, in example (32) we see the activation of the second meaning zone, as the speaker is mentally transported from the situation of finding *her tomb* to another situation where not only the tomb, but also her body is to be found. This new scenario contains more elements than the first. In this case, the speaker is not trying to sound more objective. The goal is to transport the hearer to a new richer and expanded scenario:

(32) But will finding her tomb**, not to say** her body itself, deepen our portrait of

   the last Egyptian pharaoh? (COCA, 2011)

The construction *(Not) X not to mention Y* is commonly used when speakers want to emphasize something that they are adding to a list. This construction also presents the possibility of activating two different meaning zones:

(i)   When the first meaning zone is activated, speakers compare an unlikely state of affairs with another state of affairs that is even less likely to take place, with the purpose of emphasizing its unlikelihood, as in *Voters will not want that big program, not to mention the cost* (i.e. the cost is a bigger problem for voters who want the program than its magnitude). In order to activate this meaning zone, the X part of the construction must be formulated in negative terms. In this case, the construction profiles a meaning that is similar to the previous *probability judgment alternation* constructions, the only difference being one of emphasis as noted above.

(ii)   When the second meaning zone is activated, *(Not) X not to mention Y* profiles an adding relation, where the discourse marker *not to mention* could be replaced by a connector like *and* but with an emotive connotation on the speaker's

part, as in *The weather here is gorgeous, not to mention the wonderful food*. When this is the case, the X and the Y elements are on an equal footing in terms of likelihood as seen from the speaker's perspective, but the information contained in Y is believed to be presupposed as in the following examples:

(33) You have a wonderful staff & service, **not to mention** the food. (Google[9])

(34) You've done a lot of things in your political — **not to mention** your private — life of which I doubt that you're especially proud of. (BYU-BNC)

(35) The social scientist, equipped with powerfully zooming lenses, **not to mention** other specially designed equipment, is confident of taking more accurate pictures. (BYU-BNC)

(36) He's nuts, **not to mention** spoiled. (COCA, 1990)

In example (33) the speaker is talking about the relative weight of the main reasons why he goes to a particular restaurant. At the same time, the example presupposes that the quality of the food in that restaurant (Y) is naturally the main reason, any other (X) being secondary. In (34) the hearer has done many things in his political life that he should not be proud of, but it is presupposed that having acted this way in public, he has acted in a similar or worse way in his private life. In (35) the speaker enhances the fact that the social scientist was really well equipped by taking for granted that he had "specially designed equipment" from which the "powerfully zooming lenses" were especially attractive. Finally, in (36) the person in question is presented as both nuts and spoiled, but him being spoiled was already presupposed

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[9]http://www.matakanamarketkitchen.co.nz/about-us/reviews.aspx last accessed 26/12/2013, 12:21.

by the speaker and the hearer, so the trait of being nuts is added to his spoiled personality.

In these cases, *not to mention* cannot be replaced by *much less*, not even when the X part is explicitly negative. This second meaning of the construction *(Not) X not to mention Y* is very similar to the second meaning of the previous *X not to say Y* construction.

The construction *X to say nothing of Y* is also used to add one more element to a list in an emphatic way, with the difference that the second element added is from the speaker's perspective an unquestionable argument that the hearer cannot discuss, which endows the construction *X to say nothing of Y* with a greater convincing value. Another important difference between this and the *X not to mention Y* configuration is that in this construction, Y is understood as an element that necessarily takes place if X takes place, because Y accompanies X in the given circumstances, so there is no need to talk about it. But the speaker considers important to mention that Y takes place anyway. This is the case with examples (37) to (39) below, where speakers add one more element to a given list that allows them to strengthen their contentions. For example, in (37) the fact that the hearer can also help her sister and nephew is added to the fact that she can help herself. In (38), the speaker is in favor of making every health care provider adhere to high standards of patient safety, and tries to convince the listener by listing the benefits that this could bring. The fact that a lot of money would be saved is understood as an additional and unquestionable positive side effect. Finally, in (39) the speaker vindicates the teaching of popular music not only for the support received from parents and principals, but also because children are willing to enroll in these classes, which is an indispensable element for the success of such classes.

(37) You can also help yourself, **to say nothing of** your sister and nephew. (COCA, 2010)

(38) If every health care provider adhered to the highest standards of patient safety and evidence-based medicine, hundreds of thousands of lives could be saved, **to say nothing of** the billions of dollars spent on treating complications. (COCA, 2011)

(39) In the United States, parents and principals are becoming more supportive than ever of teachers who teach popular music, **to say nothing of** the children who are clamoring to get into such classes. (COCA, 2011)

The same explanation applies to examples (40) and (41) below. In (41) there is no feature for the addition, which forbids the use of *not to mention* in the construction:

(40) He would have argued more, but his head was swimming from the drink, **to say nothing of** the wound.

(41) He would have argued more, but his head was swimming from the drink, ***not to mention** the wound.

Another important difference between the constructions *X not to mention Y* and *X to say nothing of Y* is that the first, unlike the second, seems to work best when applied to an explicit feature that a previous item is recognized to have. Compare the following examples where (43) is unacceptable because the linguistic context does not present the item introduced by *not to mention* as "more singular or unique among the already singular items".

(42) We were served a sumptuous entree, **not to mention** the other courses.

(43) We were served an entree, **?not to mention** the other courses.

X not to mention Y in (42) is used to convey the idea that the speaker and others were served not only an important entrée but also other courses which were even more sumptuous. By contrast, in (43) the construction *X not to mention Y* is less acceptable because the construction needs to focus on an implicit or explicit feature of the entree, which is hard to derive.

On the contrary, we can always use *to say nothing of* instead of *not to mention* because *to say nothing of* is broader in scope, and it can cover both cases, where there is an additive alternation of features and of entity-denoting items, as in *We were served a sumptuous entree, to say nothing of the other courses* or *The food was excellent, to say nothing of the wine!*

The negative counterparts of these constructions (i.e. *Not X not to mention Y* and *Not X to say nothing of Y* and its variants (i.e. *Ever X to say nothing of Y* and *Never X to say nothing of Y*)) convey the opposite idea, where X is not the case and Y is especially not the case, as in *Naomi would never wear a fur, to say nothing of modeling one at a fashion show* (WebCorp)*.* In sum, both constructions follow the same line of reasoning: there is no need to talk about Y, because, since X does not take place, Y will not take place either.

The difference between *Not X not to mention Y* and *Not X to say nothing of Y*, as was the case between the positive versions of these constructions commented above, is that the former has a wider active zone than the latter: while *not to mention* contrasts two different items each as a whole, *to say nothing of* can either do that or contrast different attributes of the same element. This is why *not to mention* can always be replaced by *to say nothing of*, but not the other way around, as in examples (45) and

(47) below, which are not fully acceptable because the feature at work is not easy to derive:

(44) She doesn't sound like much of a lady, **to say nothing of** a first lady.

(45) She doesn't sound like much of a lady, **?not to mention** a first lady.

(46) She doesn't sound like much of a lady, **to say nothing of/?not to mention** a first lady. (COCA, 2009)

(47) She doesn't sound like much of a lady, **?not to mention** a first lady.

The construction *Not X not even Y* is used to emphasize that what is contained in X does not take place, or is not true under any circumstances. This is achieved by generating a hypothetical scenario in the hearer's mind where Y would be more likely to happen than X in a scale of probability, but where none of them takes place anyway. In this manner, the speaker cancels out an expectation previously generated by him or by a third party, namely that the circumstances in X are true. The utterance expresses an idea that goes against the existing circumstances, re-including an element (the Y part of the construction) that had been previously dissociated from them.

This construction is always formed by introducing a generic element in the X part of the construction (i.e. an uncountable NP), which affords access to the more specific Y part, as can be seen from the following examples:

(48) No one**, not even** the police department, wanted to go toe-to-toe with Gabby, and that included Chief. (COCA, 2012)

(49) Afghanistan had been hidden away and not a single one, not Massoudi, **not even** the lowest guard who knew about that told anybody that the treasures still existed. (COCA, 2011)

(50) From the short jungle came no sound, **not even** the rustling of leaves. I had

experienced few islands in my short existence. (COCA, 2011)

Examples (48) to (50) make use of universal quantifiers like *no one, not a single*

one, and *no sound,* which constitute the X part of the construction. With the use of *not*

even the speaker (i) presupposes that the addressee, or any third party, holds the

erroneous assumption that the specific parts, i.e. the police department in (48), the

lowest guard in (49), and the rustling of leaves in (50), are not elements of X, and (ii)

he cancels out this assumption.

The speaker's intention behind the use of the construction *X to say the least (Y)*

is to sound more objective. This is achieved by suggesting that he (the speaker) could

have given better examples or arguments that would have further supported what he

claims in X, but that he has decided to omit them (Y) in order not to *shock* the listener.

This configuration is generally used to qualify the events or situation described. By way

of illustration, consider the following examples:

(51) It was a shock, **to say the least**. (COCA, 2012)

(52) I have heard the 911 calls, and they're shocking, **to say the least**. (COCA,

2012)

In (51) and (52) the speaker uses this construction to convey that he experienced

a sudden upsetting or surprising event. The speaker choses a strong qualifier like

shock that directly contrasts with *to say the least,* as no matter how strong the word

shock is, the speaker implies that he could have used much harder qualifiers for the

situation in question. This allows the speaker to sound more objective, as he has

consciously opted for using the minimal descripting items, even though the situation

would have required many more to be fair (from his perspective). This is also evident in example (53) below, where the speaker implies that he was much more than upset:

(53) I was pretty upset, **to say the least**.

The construction *X go further Y* is used to emphasize that the speaker supports the idea expressed in Y, which contains an extreme argument that is used to emphasize how much the speaker agrees with what is expressed in X. It is based on the metaphor IDEAS ARE PATHS TO A DESTINATION. The speaker has metaphorically reached the desired destination or point of argumentation with the information given in X, but he is so certain about X that he decides to go further in his argumentative path, reaching a point beyond his original destination. In this construction, the Y element is the object of subjective evaluation, and should not be taken as an objective fact, but as the speaker's own reflections about the situation in question. This can be seen from the following examples:

(54) I have known some horses and a good many more pigs who I believe harbored evil intent in their hearts. I will **go further** and say all cats are wicked, though often useful. (COCA, 2010)

(55) I shall **go further** and say that Joe is a fool. (Created example for clarification)

In example (54), the speaker is certain that animals are mischievous, owing to his previous personal experience with horses and pigs. This belief is further supported by his negative opinion on cats' behavior, which reinforces his mistrust towards animals. In (55), the speaker's negative stance towards Joe is incremented as the speaker suggests that calling Joe a fool is not unreasonable.

The construction *X still Y* can also profile this *enhancing* meaning when the connector *still* is followed by words such as *another, more, other, further* etc., as in examples (56) to (58) below. When this is the case, the temporal dimension of the connector *still* suggests that the circumstances are greater than expected for the time being. In (56), the speaker describes a situation where the subject in question is losing weight very quickly. The construction *X still Y* helps creating the image of a quicker weight loss than expected. In (57) the construction helps the hearer interpret the subject's angriness as greater than what was before, thus enhancing the negativity of the situation in question. In (58), the speaker and hearer assume that so far they have done a very effective work, but that they hope to improve when peace arrives.

(56) She would have burned up extra calories, thus helping to speed her weight loss **still** more. (BYU-BNC)

(57) 'You feel pretty good,' he murmured appreciatively, and his words fuelled her anger **still** more. (BYU-BNC)

(58) We hope that there will be peace soon so that we can do **still** more effective work. (BYU-BNC)

The construction X *let alone* Y can also profile this meaning of intensification in rhetorical questions or hypothetical situations to convey the difficulty for the situation in question to take place, as in *People have to work harder if they want to maintain, let alone improve, their standard of living* (BYU-BNC). In this hypothetical situation, listeners know that improving a standard of living is a greater achievement than simply maintaining that standard of living. The Y element in the construction introduces a greater or enhanced situation than the one described in X, thus conveying the hard

labor that workers will have to complete. Examples (59) to (61) extracted from the BNC provide further evidence in this respect:

(59) We will need something like this if travel to other stars, **let alone** to other galaxies, is to be a practical proposition in the future. (BYU-BNC)

(60) Most stable-lads would have counted themselves lucky even to get a ride **let alone** to win a race. (BYU-BNC)

(61) Of course, a couple who loved each other in December 1989 might not have done so six months later, **let alone** after two or three years. (BYU-BNC)

Finally, in the construction *X never mind Y* the situation in Y is greater than that in X, as in *I'd be terrified if I found myself alone in London, never mind New York* (BYU-BNC). This construction conveys the idea that X is a big, difficult or challenging situation to take place from the speaker's perspective, but that Y is even greater, and that is why Y is less likely to happen than X. The meaning of *X never mind Y* in this type of contexts is an extension of its previously explained *probability judgment* meaning (e.g. *I wouldn't call him, never mind invite him to my house,* section 4.3). The difference between these two uses of the construction *X never mind Y* is that when the construction profiles this *enhancing* meaning, the connector *never mind* acts on a scale of quantity instead of a scale of probability to exploit hypothetical situations, as in the following examples:

(62) "I'll put in a request for them to check out Albany" George grumbled, "but it takes months to get them to do your office **never mind** your home". (BYU-BNC)

In (62) the speaker reasons that it is not likely that the people referred to will do homes, because it is hard enough for them to do offices. The improbability meaning is

the result of comparing the amount of time that takes them to do an office (which is perceived as easier from the speaker's perspective) with the expected time frame to do a house.

(63) She would die of shame if she knew that you were even looking at a Felton, **never mind** expressing affection for one. (BYU-BNC)

Much in the same way, the situation described in Y in (63) (i.e. expressing affection for a Felton) is greater than the situation described in X (i.e. looking at a Felton). In this example, the degree of shame felt by the subject would be greater in the hypothetical Y situation than in the one described in X.

4.5 Demonstrative alternation constructions

Demonstrative alternation constructions comprise the following configurations: (*Not) X to say nothing of Y; X it goes without saying that Y; X let alone Y; X needless to say Y; X never mind Y;* and *X not to mention Y*.

These configurations are used to add more information to the object, situation, activity, etc. that the previous statement applies to, with the purpose of emphasizing the assumption that a state of affairs is obvious. This meaning is an extension of the previous *enhancing* meaning, as Y is always bigger or greater than X (in some cases only from the speaker's perspective). What distinguishes these constructions from the rest of the *complementary alternation* constructions is the fact that, when X holds, Y necessarily holds too because either Y derives from X, or because Y will hold if X holds.

As a result, many of the configurations in this constructional profile convey the meaning that the existence of Y should be taken for granted, i.e. it is obvious that it will

take place, and therefore it should not be even mentioned, as in *A free fall from 130 feet will most probably kill you, not to mention from 13.000 or 130.000.*

As explained above, most of these constructions literally make reference to the lack of necessity to talk or worry about Y, but they do so from different angles, which allows speakers to choose the most appropriate construction for each situation.

To begin with, the construction *X to say nothing of Y* is used to express that what is contained in X is known to be the case and that what is contained in Y is known to be specially the case, as in (64):

(64) After all, it was the tropical flora and fauna, **to say nothing of** the sunshine that brought her back to Florida. (COCA, 2001)

In this example the speaker points out that the main reason why the protagonist decides to go to Florida is, first, the sunshine, as noted in the Y part of the construction, and then the flora and fauna, mentioned in the X part of the construction. The use of the additional discourse marker *after all* is consistent –and underscores– this aspect of the meaning of the construction. A parallel explanation applies to example (65) below:

(65) It probably all seems a little silly or superstitious**, to say nothing of** embarrassing. (COCA, 2009)

In this example, the speaker describes the situation as possibly being silly or superstitious, but the fact that the situation was embarrassing is unquestionable from his/her perspective. Likewise, in example (66), the novelist writer Nobuko is said to have been forgotten to a certain degree, but not completely, unlike some of her putative novels, which, should they exist, would have been (according to the speaker's

suggestions) fully consigned to oblivion. The use of the verb *rumor* ('provide unverified information') further reinforces this last idea.

(66) Nobuko was quite forgotten, **to say nothing of** any novel she had been rumored to be writing.

The construction *X not to mention Y* is very similar to the *X to say nothing of Y* in form and meaning, because both constructions literally express the idea that Y should not be mentioned. The main difference between these two configurations is that *X to say nothing of Y* can activate two different meaning zones:

When the first meaning zone is activated, the Y component adds one more element that holds for the list of elements contained in X, as in (67) and (68) below:

(67) Bett and I also like to 'dine' out as often as possible and we now know some very good and cheap pub lunches around South Lancs and North Cheshire (**not to mention** Greater Manchester and Merseyside). (BYU-BNC)

(68) Combine many buses (moving and parked) with all the above and we have a chaotic, dangerous route for vehicles, **not to mention** vulnerable pedestrians, and bottlenecks and blockages galore. (BYU-BNC)

In example (67) the speaker adds to the list of good and cheap pub lunches in the city the ones he knows in Greater Manchester and Merseyside. Using this construction, the speaker presupposes that the listener will take for granted that he/she knows many premises of this kind in Greater Manchester and Merseyside, probably because the speaker lives in –or is a frequent visitor of– this area. Much in the same way, in example (68) the speaker adds more constituents to the Y component (i.e. the vulnerable pedestrians, bottlenecks and blockages) that make the route chaotic and dangerous for vehicles.

When the second meaning zone is activated, as in the example (69) below, the construction has to comply with two requirements: first, different elements have to be also added through the Y component to make this greater than X, and second, if X takes place, Y necessarily has to take place too, according to world knowledge:

(69) A free fall from 130 feet will most probably kill you**, not to mention** from 13,000 or 130,000. (COCA, 2011)

In this example, it is obvious that, if it is impossible for a person to survive a free fall from 130 feet, it will be much harder to survive from a higher altitude, as the higher the fall, the bigger the impact will be. This information is evident from the speaker's perspective, and therefore there is no need to talk about it.

The construction *X it goes without saying that Y* exploits the metaphor IDEAS ARE MOVING OBJECTS to convey the meaning that Y is an obvious addition to what is already expressed in X. This construction is used in situations where the speaker understands Y to be obvious, but where this is not necessarily the case for the rest of the participants in the conversation. The speaker uses the impersonal pronoun *it* to detach himself from the assessment of the situation in question, as if what is contained in Y were not simply obvious for himself but for everybody in general. The result is the addition of a stronger argument to the discussion with two main purposes: to make the addressee agree with the speaker's argument, and/or to reinforce the speaker's opinion. Consider, in this respect, the following examples:

(70) More money is spent on treating the complications of diabetes than on treating the condition itself. **It goes without saying** that prompt recognition of symptoms and early diagnosis is vital in reducing both admissions and complications. (COCA, 2012)

(71) Despite these difficulties, **it goes without saying** that no book should be
ordered unless the price is known. (BYU-BNC)

(72) She said: 'Of course **it goes without saying** that you will receive full co-
operation from the family'. (BYU-BNC)

In (70), the speaker's intention is to convince the hearer that, regarding diabetes, more money should be spent in early diagnosis of the illness. In order to do so, the speaker uses this construction suggesting that this fact should be obvious to the hearer if the objective is to spend less money on treating the complications of diabetes than on treating the condition itself.

In the same way, in (71) the speaker suggests that it is obvious that due to the economic conditions of the institution, books should not be ordered unless it is certain that they can be afforded. In example (72) the construction *X it goes without saying Y* is reinforced with the adverb *of course* to support the idea that the family will assist the hearer in the hard situation he is or will be going through.

The construction *X needless to say Y* is used in the same manner as *X it goes without saying Y*, because both configurations convey the idea that there is no need to talk about Y since Y is presupposed or already widely known to be the case. The difference between the two is that in *X needless to say Y*, but not in *X it goes without saying Y*, this meaning is literally expressed without making use of metaphoric devices. Another important difference is that *X needless to say Y* has a narrower active zone than *X it goes without saying Y* construction. The reason for this limitation is that in this construction Y is the result of X taking place, and therefore, the element introduced by the connector in this configuration (i.e. *needless to say)* is always dependent of the X part of the construction. Consider the following examples in this respect:

(73) Back in the day, you needed a special key to gain access here. Nicholson had one, probably still does. And **needless to say**, Ringo and John had one. (COCA, 2012)

In this example, the speaker explains that the place he is talking about was very exclusive, and that it could only be accessed using a special key. Using this construction, the speaker manages to highlight that Ringo and John had a similar or higher rank than Nicholson. Therefore, since Nicholson had the special key in question, Ringo and John must have had one too.

(74) I met a really cute guy at a bar, and we made out at the end of the night. He texted me the next weekend and asked me to meet him at another bar. When I got there, I rushed over and kissed him. But then I felt a tap on my shoulder... it was the guy! Turns out, his younger brother was in town, and I'd kissed him by mistake (to my credit, they look really similar). **Needless to say**, I went home alone that night. (COCA, 2012)

In the funny anecdote that the speaker narrates in (74) above, the fact that the speaker had to go home alone that night is understood as the necessary result or consequence of having kissed the wrong guy. In (75) below, the construction is used to convey the idea that the Taliban were obviously angry when they discovered that their stash had been assaulted.

(75) On May 18, 2009, Special Operations Forces took over a Taliban-dominated village market, confiscating large quantities of opium poppy. "When the Taliban woke up the next morning", Barnett recalls, "**needless to say**, they were pretty unhappy to find a special forces company had assaulted and taken over their stash". (COCA, 2012)

Finally, the constructions *X never mind Y* and *X let alone Y* can also be used to add or highlight a piece of information, making it obvious. These constructions work by singling out the Y element as adding one or more features to X, which is thus contained in Y. The speaker posits X as true and Y as something easier to hold compared to X. In turn, the speaker dissociates the Y element from the conjunct to make it more prominent so as to specify that Y must necessarily and obviously occur because X takes place. As a result, both constructions express the idea that because Y is so obvious, it should be taken for granted, as in the following examples:

(76) This is one of the best restaurants in the country, **never mind** Cambridge.

(77) With this knee injury I can't walk, **never mind** run.

In example (76), the speaker expresses his satisfaction with the restaurant affirming that it is one of the best in England. Therefore, if the restaurant is one of the best in the country, it must necessarily be one of the best in Cambridge, which is located in England. Unconsciously, the speaker points out that this fact is so obvious from his perspective that the hearer should not even need to think about it. In the case of (77), world knowledge tells us that running is a harder activity than walking. Therefore, if the subject cannot perform a simpler activity like walking, it should be taken for granted that he will not be able to run either.

The examples (78) and (79) below, based on the *X let alone Y* construction, work in the same way. In example (78) it is assumed that big fish are found more easily in lakes than in rivers. In the speaker's logic, if the trout mentioned was big for a loch, it must necessarily (and obviously) be considered a big fish for a river. An extra meaning implication is the fact that this use of the logic of the construction magnifies the importance of having found such a big fish in the river. Example (79) is very similar to

example (77) above. In this case, if a person can hardly live, it is obviously impossible that he will be able to perform an active task like playing golf. The construction is used to highlight the bad condition in which the subject was to support the conviction that he will not play golf again.

(78) To give an example, a 7lb trout was caught recently; a huge fish for any loch, **let alone** river. (BYU-BNC)

(79) On August the 12th 1991 it was feared that Brian Waites might not live, **let alone** play golf ever again. (BYU-BNC)

The difference between both constructions is that while *X let alone Y* uses the conceptual metaphor IDEAS ARE OBJECTS to imply that the idea contained in Y should be left apart, and therefore should not be considered, the construction *X never mind Y* does not use any metaphor to convey the same meaning.

5

Complementary contrastive constructions

This section examines the essential features of the family of *complementary contrastive* discourse constructions in English. We will begin by defining these configurations in comparison to contrast and additive constructions. Then, we will offer a preliminary classification of these configurations to continue exploring in different subsections each of the subgroups of constructions that comprise this constructional family, describing all the constructions in detail.

To begin with, most linguistic trends on discourse studies distinguish between contrastive and additive constructions. In contrastive constructions, two segments of discourse simply oppose each other and cannot coexist, as in *You can win or lose; Shaken, not stirred* whereas addition constructions act exactly in the opposite way, joining two different elements in discourse as in *My sister and my brother are in good health.*

However, to date there are no studies that account for the existence of constructions that, in addition to conveying a contrastive meaning between the two compared segments of discourse, also contain an additive value. The latter kind allows the contrasting elements to complement each other thereby generating new meaning, as in *Some living composers are more dead than alive.* The present chapter precisely attempts to identify and define such constructions at discourse level.

Using the English corpora and dictionaries mentioned in chapter 3, we have identified the constructions that are used to materialize the complementary contrastive relation. In all these constructions, even though the elements compared are contradictory, the existence of the first element does not preclude the existence of the second, and vice versa. These contrasting elements are expressed as X and Y, or as M and N in the case of opposing features of a given element. The constructions displaying this meaning base are the ones in *Table 5* below.

Excuse me but Y/I'm sorry but Y	Leaving aside X, Y	Much as X, Y
Not only X but Y	Not so much X as Y	X after all Y
X (but) still Y	X would rather Y (than Z)	X yet Y
X against Y	X although Y	X anyhow Y
X all the same Y	X at any rate Y	X at least Y
X anyway Y	X besides Y	X but (then) Y
X be that as it may Y	X even (now/so/then) Y	X even (so) Y
X despite Y	X even more/less M than Y	X for all Y
X even if Y	X however Y	X in any case/event Y
X howbeit Y	X is more M than N	X never mind Y[10]
X in spite of Y	X nonetheless Y	X notwithstanding Y
X nevertheless Y	X on/to the contrary Y	X regardless Y
X on the other hand Y	X though Y	X while admitting Y
X while Y		

Table 5. Complementary contrastive constructions

Nevertheless, depending on the construction selected, speakers profile this complementary contrastive relation very differently. By way of illustration, consider

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[10]The connector *never mind* appears both as *nevermind* and *never mind* in different dictionaries (CCD and ODO, among others). There seems to be no consensus on which one to use. We have chosen the *never mind* spelling as it is the most accepted version and retrieves the biggest number of examples in the corpora.

examples (1) and (2) below. Both display a complementary contrastive meaning relation between two given elements: in example (1), being *cool* and being *smart* can be understood by some people as opposing or even irreconcilable properties (in modern aesthetics, it is often more important to be 'cool and down' with the peer group than to demonstrate academic achievement), but here the subject in question is presented as having both qualities at the same time. In example (2), the speaker acknowledges that *success* is a combination of a *process* and a *realization* (to a lesser extent), even though the idea of continuity entailed by the word *process* is directly opposed to the telic or finite dimension involved in the notion of *realization*:

(1) She looks cool **while** being smart.

(2) Success **is** a process, **more than** a realization.

The contexts where these constructions are used are completely different; while example (1) profiles the complementary contrastive relation in a neutral manner, in example (2) the speaker's evaluation or opinion is inherent to the meaning of the construction. In other words, there are important differences in the way both constructions profile the same complementary contrastive meaning.

Based on these differences, we propose to further classify *complementary contrastive* constructions (listed in *Table 5* above) into seven subgroups of constructions: *neutral*, *concessive*, *correcting*, *topic changing*, *topic avoiding*, *refusal-apology*, and *evaluative complementary contrastive constructions* (see *Table 6* below). These subgroups of constructions represent the six different meaning dimensions that *complementary contrastive* constructions can profile.

CONSTRUCTIONAL PROFILES	DESCRIPTION	IDENTIFIED CONSTRUCTIONS	EXAMPLES
Neutral complementary contrastive constructions	They present a state of affairs from a different but complementary point of view.	X but Y X on the other hand Y X while Y	- Her creations, **while** annoying, are very impressive!
Concessive constructions	They suggest that the second idea/state of affairs (that was not expected to be the case given the circumstances expressed in the first) holds or is more important than the first, no matter what has been or will be said. Used to indicate that a statement explains or supports a previous statement.	Much as X, Y X after all Y X against Y X all the same Y X although Y X anyhow Y X anyway Y X besides Y X but (then) Y X despite Y X even (now/so/then) Y X even if Y X for all Y X however Y X in any case/event Y X in spite of Y X nevertheless Y X nonetheless Y X notwithstanding Y X regardless Y X (but) still Y X though Y X while admitting Y X while Y X yet Y X at any rate Y	- I don't know whether he was doing science, law or math. **In any event,** he became a full professor. - I realize she can be very annoying, but **all the same** I think you should apologize for losing your temper with her. - Costly and time-consuming, it was **nonetheless** essential.
Correcting constructions	They correct or modify the content elements of an utterance whatever its illocutionary force, by changing all or part of it or by specifying it.	Not only X but Y X anyhow Y X anyway Y X at any rate Y X at least Y X but Y X even (so) Y X even more/less M than Y X howbeit Y X in any case Y X on/to the contrary Y X though Y X yet Y	- Come early evening, after tea time, **at any rate.** - ...the hooligans –**at least** two strong men–are believed to have rocked the seats until the bolts snapped.
Topic changing constructions	They help to change the topic of conversation or to return to a previous topic.	X anyway Y X be that as it may Y X in any case/event Y X but Y	- Stereotypes are sometimes difficult to overcome. **Be that as it may,** tell me about yourself. What brings you here?
Topic avoiding constructions	They avoid discussing or considering a particular subject or aspect of something.	Leaving aside X, Y X but Y X never mind Y	- **Leaving aside** for a moment a discussion of the disadvantages, let's turn to the advantages.
Refusal-apology constructions	They introduce a reply to someone when one wants to indicate reluctance, disbelief, refusal, or an apology.	Excuse me but Y X all the same Y X anyhow Y X anyway Y	- I can give you a lift if you wait- No, thanks, **anyway.** - **Excuse me, but** I think you're wrong there.
Evaluative constructions	They merge an expected state of affairs with the actual state of affairs, contrary to or different from the former, often resulting in the speaker's evaluation of the situation.	Not so much X as Y X but Y X is more M than N X would rather Y than Z	- Some living composers **are more** dead **than** alive.

Table 6. Classification of complementary contrastive constructions

As the reader may have noticed in *Table 6,* the construction *X but Y* is present in all the subgroups of constructions in the family. Grammarians and language philosophers of all trends recognize that the connector *but* is very generic, and that it has a broad meaning that has to be parameterized in context. For example, Sperber and Wilson (1986) have contended that *but* is a schematic connector whose actual function is determined by speakers on the basis of textual and contextual clues as constrained by relevance criteria arising from the balance between cognitive economy and meaning effects. In other words, this connector has a very generic meaning to be adjusted pragmatically, thus generating an explicature as opposed to an implicature[11].

In the present proposal, we argue that the construction *X but Y* is schematic because it only sketches out a functional (i.e. non-content) relation between two elements (or constructional variables). The fact that this configuration can profile so many different meanings is simply a matter of cognitive economy by which humans assign a very generic value to words and adjust their meaning in context, trusting their intellectual abilities in the process. In this case, the construction *X but Y* hardly profiles the complementary contrastive meaning base, and by means of the high-level metonymy GENERIC FOR SPECIFIC, and making use of contextual clues, the generic meaning of *but* is adjusted to each of the seven specific meaning dimensions *complementary contrastive* constructions can profile.

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[11]Other authors such as Bach (1994) have used the term *impliciture* instead of implicature, which is largely equivalent to Sperber and Wilson's explicature. Implicatures are based on premise-conclusion reasoning schemas, while explicatures simply require minor contextual adaptations of messages. The existence of non-implicated language-based inferences has been recognized by other scholars too (e.g. Recanati, 1989, 2004). Within the context of Relevance Theory, the most detailed explorations have been offered by Carston (2000, 2002, 2010).

The following sections offer a brief description of each of the subgroups of constructions that constitute the *complementary contrastive* family of constructions together with a detailed analysis of each configuration within the various subgroups.

5.1 Neutral complementary contrastive constructions

Neutral complementary contrastive constructions comprise the configurations *X but Y* and comparative neutral or objective constructions of the *X on the other hand Y* and *X while Y* kind*.* These configurations are used to present a state of affairs from a different but complementary point of view, creating a contrast between two elements (X and Y) that do not exclude each other, as in *Her creations, while annoying, are very impressive*[12]*.*

The construction *X but Y,* in neutral contexts, is simply used to contrast two alternatives or opposing features (i.e. X and Y) that are true and equally important to characterize a given element or a state of affairs, as evidenced by example (3) below:

(3) I wondered momentarily if he'd gone mad **but** [I] didn't say anything. (CCD)

When this construction is used in neutral contexts, it can always be replaced by the *X and Y* configuration. However, *X and Y* is not a *complementary contrastive* construction, it has a completely different meaning base. Consider the difference between (3) above and (4) below, altered for convenience:

(4) I wondered momentarily if he'd gone mad **and** [I] didn't say anything.

The construction in example (3) implies that the speaker assumes that the speaker should have said something, which he did not do. This implication is not

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[12]https://ouralaskalife.com/adopt/houdini/ last accessed 01/01/2017, 20:52.

present in (4). In (3) both alternatives (saying something and remaining silent) are directly opposed, focusing on the fact that the speaker did not say anything. By contrast, in example (4) there are two foci with the same degree of importance, and instead of presenting alternatives, the construction expresses two different events that take place one after the other (the speaker wonders something, and then he remains silent).

In the construction *X on the other hand Y,* the Y variant introduces the second part of an argument or discussion that has two different and apparently opposite points of view (from the speaker's perspective). This construction is based on the metaphorical idea of arguments occupying regions in space relative to the speaker's own left and right hand spatial distribution. Since the two hands occupy opposed positions in the human body's quasi-symmetrical distribution, the items figuratively situated in either position are regarded as opposed too.

The difference between this construction and the *X however Y* construction is that when speakers use *X on the other hand Y,* they contrast the elements ideologically, placing them on one side or the other, according to their differences. Another important difference is that *X however Y,* being a *concessive* construction as will be explained in section 5.2 below, is also prone to negative axiological parametrization. In practice, we use *on the other hand* to contrast an element or argument with a previous argument in the same discussion. Both elements are in complementary contrastive relation when the elements in the X part of the construction (which are necessarily different, as far as a particular aspect is concerned) do not block the possibility of existence of the elements in the Y part of the construction, and X and Y complement each other. This is evident in example (5), where the speaker uses two different but complementary arguments (the few number of teachers that had ever read

about dyslexia and the number of teachers that had never taken a preparation workshop on it) to emphasize the teachers' lack of proper preparation to provide instruction for students with dyslexia.

(5) For example, almost one third of the teachers had never read any book about dyslexia (…). **On the other hand**, when teachers were asked about their institutional preparation, there was (37.1%) who had never taken any general or specific preparation workshop. (COCA, 2012)

In turn, we use *however* to create a universal contrast between whatever is the case (an element or a group of elements) with anything else in the world, instead of contrasting two different arguments of a discussion, as in *The more I talked, the more silent Eliot became. However, I left thinking that I had created quite an impression.* In this example, the speaker is surprised at the fact that he had created a good impression on Eliot. In terms of world knowledge, an interlocutor may remain silent when he/she is not interested in the development of a conversation. The lack of interest on the part of Eliot in X directly contrasts with the apparently high interest that Eliot shows in Y. The two opposing ideas are combined in the construction to suggest that despite the circumstances, the speaker succeeded at creating a good impression in Eliot, that is, the elements in X contrast with the elements in Y, but at the same time complement each other.

Finally, the construction *X while Y* confronts two states of affairs that are opposites but co-occur in time. The construction basically works in the same way as *X on the other hand Y*, although highlighting the temporal dimension of the construction. While in *X on the other hand Y* the X and Y elements do not necessarily need to take place at the same time, in *X while Y* both elements necessarily occur simultaneously.

This construction needs to be distinguished from *X while admitting Y*; in this other construction the speaker clearly shows his subjective opinion (the speaker admits something even if he thinks it is not entirely correct), as in *While admitting a fundamental biological origin for such tendencies, Singer ultimately dissociates this extension of empathy from our biology* (COCA, 2014). Instead, the construction *X while Y* can refer or not to a judgment made by the speaker, as can be seen in the following examples:

(6) So **while** I have sympathy for these fellows who reacted against the formality of their predecessors, I think they went too far. (CCD)

(7) Your missive, **while** complete in other regards, skirted the subject of cost. (CCD)

In example (6) above, it is inferred that a person should not have sympathy for people who go too far, as the use of *too far* already implies that they went further than desired. Then, having sympathy for the 'fellows' in question directly contrasts with them going 'too far'. Nevertheless, as opposing as these ideas can be, they do not exclude each other. Therefore, we can say that these two parts of the construction are in complementary contrastive relation, the focus of the construction always being on the element introduced by the connector (i.e. *I think they went too far).* A similar explanation applies to example (7), where the fact that the missive was mostly complete contrasts with and is complemented by the idea that the subject of cost was inadequately taken into account.

5.2 Concessive complementary contrastive constructions

Concessive complementary contrastive constructions comprise the following configurations: *Much as X, Y; X after all Y; X against Y; X all the same Y; X although Y; X anyhow Y; X anyway Y; X besides Y; X but (then) Y; X despite Y; X even (now/so/then) Y; X even if Y; X for all Y; X however Y; X in any case/event Y; X in spite of Y; X nevertheless Y; X nonetheless Y; X notwithstanding Y; X regardless Y; X (but) still Y; X though Y; X while admitting Y; X while Y; X yet Y;* and *X at any rate Y.*

Before explaining in detail each of the constructions listed above, we see the need to clarify the term *concession* in relation to the notion of contrast. We believe the reader will find such clarification useful to better understand why this subgroup of constructions form part of the *complementary contrastive* constructional family.

A contrast relation is an inter-propositional relation that expresses that a difference between one proposition and another is relevant. When speakers contrast two given elements or states of affairs, they can conceive these elements in full or partial opposition, depending on the place they occupy in a contrast continuum. When the opposition or contrast is complete, both elements stand in a contrastive relation (e.g. *I think she is very funny. By contrast, Myriam can't stand her,* see chapter 6 of this dissertation), whereas if they are in partial opposition, the two elements stand in a concessive relation (e.g. *I think she is very smart, in spite of her bad grades*). These two possibilities are just two ends of the same spectrum, very close in meaning, since the relations of concession and contrast can merge in practice when the speaker wants the contrast to be softened or minimized (Iza Erviti, 2015b). For example, the sentence *I can't stay. I'll have a coffee, though* displays a concessive relation, but at the same

time it contrasts the impossibility to stay with the possibility of staying just enough time to have a cup of coffee. On most occasions, though, concession and contrast can be clearly distinguished.

According to Thompson and Longacre (1985), a concession is a relation of unexpectedness between propositions. Some propositions in the relation are expressed as unexpected (the *contra expectation*) in light of some other propositions. These authors distinguish between two types of concession: a definite concessive relation, in which the clause expressing the concession is marked by a concessive subordinator that expresses the meaning "in spite of the fact that", and an indefinite concessive relation, in which the clause that expresses the concession contains a form such as an indefinite pro-form or an expression with a meaning similar to "no matter", which expresses a range (1985, p. 198). Other authors such as Antaki and Wetherell (1999) understand concession as the result of using a three-part structure of proposition, concession and reassertion, to the effect of "strengthening one's own position at the expense of a counter-argument".

In the present proposal, concession is understood as the result of a previous contrast cognitive operation, i.e. the contrast between the real situation that takes place and the hypothetical situation that creates the expectation. In *concessive* constructions, the expectation is cancelled by the Y part of the construction, i.e. the part introduced by the connector.

This definition allows for the inclusion of different meaning profiles that previous approaches to concession cannot account for. For example, according to Imo (2006), the result of using *concessive* constructions is that by conceding some counter arguments, a speaker can avoid sounding too dogmatic or biased, and at the same

time the proposition can be immunized against counter-arguments. The same idea is contained in Couper-Kuhlen and Thompson (2005), who state that a concessive repair affords the producer of a statement the possibility of softening a claim, making it more reasonable and therefore more acceptable. But as will be demonstrated below, *concessive* constructions can also be used to suggest that a statement is more relevant for the speaker despite whatever else has been or will be said.

In *concessive* constructions, as exemplified by the sentence *I realize she can be very annoying, but all the same I think you should apologize for losing your temper with her,* the speaker in question considers the X element of the construction (i.e. 'I realize she can be very annoying') to be inferior in importance to Y (i.e. 'I think you should apologize…'). However, the speaker does not reject X entirely, because he is conscious that the situation is the opposite from the perspective of the hearer (i.e. she is so annoying that the listener will not contemplate the possibility of apologizing to her). Using a *concessive* construction (i.e. *X all the same Y*), the speaker hopes that the hearer will agree with what he says in Y. So even though speakers may feel forced to weaken their assertions in the aforementioned contexts, their formulations still hold. *Concessive* constructions thus constitute a subgroup of constructions identified within the family of *complementary contrastive* alternations, because the speaker seeks to find a converging point (a complementary relation) between two elements that, in origin, were in direct opposition.

According to the data in our corpus, speakers can choose from among three meaning dimensions in order to find such a meeting point, thereby preventing the hearer from reaching undesired conclusions (see *Table 7* below).

(i)   Conveying the idea that a state of affairs holds despite opposition. This is illustrated by the following examples: *Perhaps life was worth living after all* or *It sounds crazy but I believe it anyhow.*

(ii)   Accepting the reality/existence of a given state of affairs while defending the idea that another takes precedence over the former in terms of its impact on the hearer (interpersonal function), or the greater importance of Y relative to X (ideational function); e.g. *I don't know whether he was doing science, law or Maths, in any event he became a full professor*; or *Even if your skin's greasy in summer, you still need the protection of a moisturizer to stop it drying out.*

(iii)   Indicating that a statement explains or supports a previous statement, as in *I don't think that's true. I haven't found any evidence, anyway.*

Consequently, these constructions involve a change in focal structure that makes the first element seem less important from the speaker's perspective, meaning that whatever the nature of X, what matters is Y.

MEANING DIMENSIONS	CONSTRUCTIONS	EXAMPLES
X imposes an obstacle to the fulfillment of Y, but Y happens anyway. Y holds despite opposition	X after all Y	- Perhaps life was worth living after all.
	X against Y	- Against her will, she glanced down, and what she saw terrified her. (COCA, 2012)
	X in spite of Y	- In spite of the pagan savagery of the Vikings, Celtic Christianity kept a hold on the country. (BYU-BNC)
	X despite Y	- Despite the difference in their ages they were close friends. (CCD)
	X even if Y	- Even if you disagree with her, she's worth listening to. (CCD)
	X for all Y	- For all their differences among themselves, they reached some kind of consensus, some common philosophy of life. (CCD)
	X notwithstanding Y	- She went to the game anyway, doctor's orders notwithstanding.
	X though Y	- He recognized his own name, badly pronounced though it was. (CCD)
	X anyhow Y	- It sounds crazy. I believe it anyhow. (The free dictionary.com)
	X anyway Y	- We hate making love when we don't feel like it, but we do it anyway.
X and Y hold, but Y is more relevant…	X (al)though Y	- Although his testimony to Congress in 1986 had contained inaccuracies, he denied that it had been his intention to mislead the investigation.
	X after all Y	- A university professor is a teacher, after all, not only a researcher.
	X all the same Y	- We were too late in submitting an amendment, but I ask you to consider it all the same. (WebCorp)
	X anyhow Y	- Thor couldn't find his hammer anywhere; anyhow it's not like he needed it for the party. (WR)
	X anyway Y	- I decided to postpone the idea of doing a course, and anyway I got accepted by the Council. (CCD)
	X at any rate Y	- But perhaps there would be some way of persuading her; at any rate, Emily would not give up her ideas. (BYU-BNC)
	X but (then) Y	- A cheap but incredibly effective carpet cleaner…
	X despite Y	- The cost of public services has risen steeply despite/in spite of a general decline in their quality. (CCD)
	X even Y	- People seemed content, even happy. (CCD) - I often led her money even now… - I suppose we looked very odd, even then.
	X even if Y	- Even if your skin's greasy in summer, you still need the protection of a moisturiser to stop it drying out. (BYU-BNC)
	X for all Y	- For all my pushing, I still couldn't move it. (WR) - It's pretty hard on such a sensitive girl, but for all her sensitivity, she's extremely tough. (CCD) - For all his proficiency on the pallet, Ed Miliband still can't speak human. (WebCorp)
	X however Y	- The more I talked, the more silent Eliot became. However, I left thinking that I had created quite an impression. (CCD) - I hate eating fish. However, I really enjoyed your mum's cod.
	X in any event/case Y	- I couldn't shelter behind him all the time, and in any case he wasn't always with me. (CCD)

... X and Y hold, but Y is more relevant	X in spite of Y	- It was a life which, in spite of my Aunt and Uncle's warmth and affection, made me unhappy. - What amazes me is that, in spite of the horrific nature of what I have seen, I feel neither repulsion nor revulsion. (BYU-BNC)
	X much as Y	- Much as I'd like to blame you, I know I can't. (MWO) - Much as I would like to help you, I'm afraid I'm simply too busy at the moment. (CDO) - Much as she likes him she would never consider marrying him. (CCD)
	X nevertheless Y	- She saw Clarissa immediately, but nevertheless hovered there a moment longer and pretended to look around for her. (CCD) - Her date was a bit of a slob, but she had fun nevertheless.
	X nonetheless Y	- Costly and time-consuming (the operation was unfinished at the outbreak of the First World War), it was nonetheless essential. - Even though their intuitive 'feel' sensed that it was too far-fetched to be real, nonetheless it had to be checked.
	X notwithstanding Y	- Notwithstanding a brilliant defense, he was found guilty. (Dictionary.com) - It was the same material, notwithstanding the texture seemed different. (Dictionary.com)
	X regardless Y	- If they are determined to strike, they will do so regardless of what the law says. (CCD) - Every day is beautiful to the Community, regardless of what is happening outside. (BYU-BNC)
	X still Y	- After a week alone in the house, she still expected to hear his key in the front door. (CCD) - Just as I reached the bus-stop the bus went off. Still, that's life, isn't it? (CCD) - His mother was Canadian: Irish-Canadian but still Canadian. (CCD)
	X while admitting Y	- While admitting that his testimony to Congress in 1986 had contained inaccuracies, he denied that it had been his intention to mislead the investigation. (BYU-BNC)
	X yet Y	- It's lightweight, yet very strong.
Used to indicate that a statement explains or supports a previous statement	X anyway Y	- I don't think that's true. I haven't found any evidence, anyway. (http://wikidiff.com/anyhow/anyway)
	X anyhow Y	- No, I'll put them in this, why use up your carrier bags, anyhow this is an easier way to carry. - I didn't go to the concert. I'm not a big rock fan, and I didn't have a ticket anyhow.

Table 7. Meaning dimensions of concessive constructions
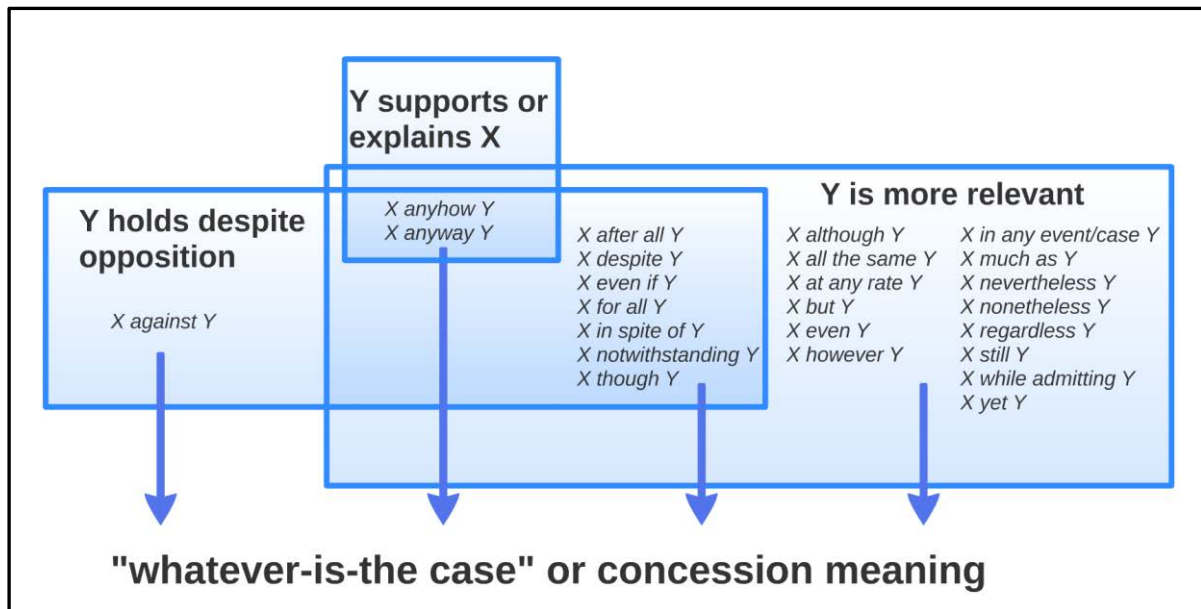
Figure 3. Meaning dimensions of concessive constructions

We are aware that concession can be expressed by certain lexico-syntactic configurations other than the ones analyzed here. It can even be left implicit in the discourse without specifically marking it. But the investigation of these special cases goes beyond the scope of the present research. In any case, and after the investigation of the *concessive* constructions that have been identified within this family of constructions (see *Table 7* above)*,* we will determine when each of the above constructions is used with preference to the others, since each of these constructions introduces subtle variations in meaning. Nevertheless, these changes in focal structure may not affect the interchangeability between constructions in different contexts, as all these constructions metonymically realize the same 'whatever-is-the-case' meaning captured by *concessive* constructions.

This observation is evidenced by example (8) below, where the original connector *anyway* can be replaced by other connectors without apparent differences in meaning:

(8) I decided to postpone the idea of doing a course, and **anyway/besides/in any case/still/all the same/anyhow/at any rate/but then** I got accepted by the Council. (CCD)

However, each of these constructions introduces subtle differences in meaning, and in most cases, one construction is preferred to the others, depending on the context in which they are introduced, despite the fact that these markers have generally been treated as fully synonymous in common lexicographic practice. The following lines will explain the differences among these apparently equivalent constructions.

The configuration *X however Y* is used to introduce a comment that seems to contradict what has just been said. In this construction, the X part conveys an idea, but the speaker prevents the hearer from (fully) engaging himself in that idea by adding new information in Y. The new information is different from what would have logically followed from X. In this process, the speaker shares with the hearer his surprise about the circumstances in Y, because the circumstances in X would have held true otherwise. Example (9), extracted from the *Collins Cobuild Dictionary*, shows how the hearer may erroneously think that Eliot did not enjoy the speaker's conversation. The second part of the construction suggests otherwise:

(9) The more I talked, the more silent Eliot became. **However**, I left thinking that I had created quite an impression. (CCD)

The same explanation applies to example (10) below, where the hearer would have erroneously assumed that the speaker did not like the food his mother cooked on the basis of the logic of "I hate eating fish", which would in principle exclude the hearer's mother's cod. However, this is not the case in (10), where the speaker contradicts this assumption thereby giving rise to a complementary contrast. In fact, the contrast

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between the X and Y elements, which are otherwise complementary, reinforces the idea that the food was especially good.

(10) I hate eating fish. **However**, I really enjoyed your mum's cod.

The configurations *X anyway Y* and *X anyhow Y*, which are almost identical in meaning (i.e. they are both related to the manner in which Y is achieved) also convey the speaker's surprise, because as opposed to what X would suggest, Y happens no matter what. Our corpus includes numerous examples of these constructions that show this 'whatever-is-the-case' meaning, as example (11) below, where the fact that the speaker believes something to be true is surprising even for the hearer (i.e. world knowledge tells us that people do not usually believe that a situation can be real if it sounds unrealistic). A parallel explanation applies to example (12), which explains how a group of excursionists that were lost surprisingly manage to find their way to the lake:

(11) It sounds crazy. I believe it **anyhow**. (BYU-BNC)

(12) We were lost in the trails that led to the lake, until we found a way to it **anyhow**.

The difference between both constructions lies in the fact that *anyway* is based on the experiential conflation between a goal and the path followed to reach that goal, as dictated by the underlying metaphor MEANS TO ACHIEVE A GOAL ARE PATHS TO REACH A DESTINATION (Lakoff, 1993). In turn, *anyhow* literally encodes the manner of action meaning, that is, 'in-any-manner'.

Let us now consider constructions such as *X at any rate Y* and *X in any event/case Y*, which are very similar in meaning:

(13) But perhaps there would be some way of persuading her; **at any rate**, Emily would not give up her ideas. (BYU-BNC)

(14) As it turns out, his crime is an ambiguous one and, **in any event**, his actions are determined by a family curse: his father had wanted to kill his mother but had been dissuaded from doing so. (BYU-BNC)

In examples (13) and (14) above, we could use *at any rate* or *in any event* indistinctively, without apparent differences in meaning. *At any rate* and *in any event* are almost always interchangeable, and it is difficult to find examples where one of them is not allowed in the construction. But there are other cases where in any event and at any rate do not seem to be fully exchangeable. Although they might seem fully synonymous, *in any event* and *at any rate* are conceptualized differently, involving the activation of two different meaning zones within the same constructional profile. Consider examples (15) and (16) below in this respect:

(15) I don't know whether he was doing science, law or maths, **in any event/?at any rate** he became a full professor.

(16) He did something, something in industry **at any rate/?in any event**.

This incompatibility arises from the fact that when we use *in any event* we must have different alternative scenarios, and the existence of either scenario is possible. In contrast, *at any rate* emphasizes a unique scenario and different possibilities within that scenario.

Besides, *at any rate* indicates the frequency with which something occurs. Thus, by using *at any rate,* speakers outline the sequence of events based on how often they occur within a time period. It is assumed that if something occurs frequently, it always happens. Through the metonymic extension of that frequency, we have access to the

meaning 'whatever-the-circumstances' or 'whatever-is-the-case', because the events in question always occur. In essence, what this construction suggests is that no matter the frequency with which X occurs, Y is more important, as can be appreciated in examples (17) and (18) below:

(17) This**, at any rate**, was one of the stories he told.

(18) **At any rate**, even if this were true, it would only correspond to 3.7% of all judicial procedures.

By contrast, in the expressions *in any event* or *in any case* we profile the sequence of events not based on the frequency with which they occur, but on their existence. In these constructions, the second element is also regarded as more important than the first, but in this case, the element introduced by the connector acts as the final argument in the discussion. The X and Y elements of the construction do not need to be directly related externally, but the speaker sees the connection between both elements while regarding Y as supplying the fundamental reason. When these expressions are used, the possible scenarios are explicitly mentioned, but the construction suggests that these scenarios do not matter, because Y always occurs independently of them, as illustrated by the following examples:

(19) I couldn't shelter behind him all the time, and **in any case** he wasn't always with me. (CCD)

(20) The precise function of this organ is not certain. It probably varies **in any case** from species to species. (CCD)

In example (19), the Y element of the construction (i.e. *he wasn't always with me*) introduces what seems to be the fundamental reason why the speaker could not shelter behind the person in question all the time. In turn, in example (20), the fact that the

function of the organ varies from species to species minimizes the importance of the speaker not knowing the function of the organ in question.

In practice, *in any case* and *at any rate* have become very close in meaning, resulting in the 'whatever-is-the-case' meaning via a metonymic extension as explained above. It is difficult to almost eliminate the use of one marker over the other. There are only preferred options, depending on the meaning zone activated for each context. Sometimes, it is better to focus on the frequency with which something happens, whereas on other occasions the preference is to focus on the fact that something actually takes place.

The construction *X nonetheless Y* is very similar in meaning, as it also implies that the new situation is different from what might have been expected from X. In the X part of the construction, the speaker reluctantly admits several circumstances with which he does not necessarily agree. By contrast, the Y element of the construction includes a new ingredient (which the speaker completely agrees with) that was being ignored in the argument, as illustrated in (21) below. Thus, the fact that the operation was essential was being overlooked in the argument (i.e. it was costly and time-consuming). In turn, the fact that the hearer's attention is directed to the second part of the argument gives this element of the construction prominence over the first. An additional example of this construction type is presented in example (22).

(21) Costly and time-consuming (the operation was unfinished at the outbreak of the First World War) it was **nonetheless** essential. (BYU-BNC)

(22) Even though their intuitive 'feel' sensed that it was too far-fetched to be real, **nonetheless** it had to be checked. (BYU-BNC)

The connector *nonetheless* has generally been treated as a synonym of the connector *however.* The difference between these two markers is that in the construction with the former, each of the opposing elements in the configuration is true and equally important (i.e. *nonetheless* in origin means that there is no element that is inferior to the rest) focusing on the last one in particular, while in *X however Y,* the second variable somehow cancels part or all of the first.

The configuration *X nevertheless Y* is practically identical in use, although *nonetheless* tends to be used in rather formal contexts. The difference lies in the origin of the construction: while *nonetheless* focuses on the fact that X and Y should be considered equals, nevertheless draws our attention to the fact that X should never be considered less important than Y, which in practice is the same. In essence, this construction conveys the idea that X is a particular fact for which Y should not be expected to happen but that takes place anyway. The connector *nevertheless* helps to contradict this expectation without minimizing the importance of the circumstances in X. As can be seen in (23), the subject saw Clarissa and was expected to demonstrate that she saw her, but instead, she pretended to look around for her. The fact that she saw Clarissa immediately is as important as the fact that she pretended not to. In example (24), the fact that the protagonist's date was a bit of a slob did not prevent her from having fun. In (25), *predictable* and *funny* are two traits that characterize the story on equal terms, but the fact that the story is predictable, which would generally prevent the story from being funny, does not in fact have this expected effect.

(23) She saw Clarissa immediately, but **nevertheless** hovered there a moment longer and pretended to look around for her. (CCD)

(24) Her date was a bit of a slob, but she had fun **nevertheless**.

(25) It was a predictable, but **nevertheless** funny, story. (MWO)

The next construction to be addressed is *X notwithstanding Y.* Apart from being used in formal contexts, this construction is also distinguished from the previous ones discussed here in that the connector *notwithstanding* corrects the hearer's possible assumption that something mentioned in the X variable of the construction has an effect on the situation that is being described. In example (26) below, the fact that the person in question has a brilliant defense does not prevent him from being found guilty, in contrast to what might have been inferred from the element introduced by *notwithstanding.* In example (27) too, the fact that the doctors do not allow the subject to go to the game does not prevent her from going. Parallel explanations apply to examples (28) and (29) below:

(26) **Notwithstanding** a brilliant defense, he was found guilty. (Dictionary.com)

(27) She went to the game anyway, doctor's orders **notwithstanding**. (Dictionary.com)

(28) It was the same material, **notwithstanding** the texture seemed different. (Dictionary.com)

(29) Computing remains a growth area and one in which **notwithstanding** economic recessions, the outlook looks bright. (CCD)

This construction has been identified with the *X in spite of Y* construction, because both share certain characteristics that allow them to be compared: (i) both mark the efforts for something to happen that finally does not hold; (ii) both introduce a surprising element (i.e. that it was surprising that he was found guilty in (26), that she finally went to the game in (27), that it was the same material in (28), etc.); and (iii) if the element introduced by the connector in the construction (i.e. *in spite of* or

notwithstanding) is negative, the general statement is regarded as positive, and vice versa. In other words, if the Y element is conceptually negative, the X element presents a better or more positive situation than the situation that would have logically been inferred from Y. If X is conceptually positive, Y is conceptually negative, and instead of expressing surprise, the construction conveys a feeling of sadness, remorse, guilt, etc. This meaning value is to be parameterized in context, as in the following examples:

(30) **In spite of** poor health, my father was always cheerful. (CCD)

(31) It was a life which, **in spite of** my Aunt and Uncle's warmth and affection, made me unhappy. (CCD)

As can be seen from examples (30) and (31) above, the element introduced by *in spite of* in (30) (i.e. having poor health) is regarded as negative, while in (31) it is positive (i.e. the warmth and affection provided to the speaker). The surprise is generated by the existing contrast between the element preceding the connector (in this case, *in spite of*) and the element after it. In example (30), the speaker is surprised that his poor health did not prevent her dad from being happy, whereas in (31) the speaker reflects on her unhappy childhood, where despite her relatives' effort, she ended up being miserable.

But these configurations differ in one relevant way: the connector *in spite of* contains a negative ingredient that is not present in *notwithstanding*. *In spite of* always introduces a negative shade of meaning, probably due to the origin of the word *spite*, which means "contempt". By contrast, the construction *X notwithstanding Y* simply discredits the importance of X: no matter X, Y occurs. In this regards, the meaning of *X notwithstanding Y* could be better compared to the *X never mind Y* construction, as *notwithstanding* introduces something that is immaterial. This is not the case with the

construction *X in spite of Y*, which focuses on the importance of Y taking place in relation to X.

Another important feature that distinguishes the constructions *X notwithstanding Y* and *X in spite of Y* is the degree of surprise conveyed by one or the other. When speakers are *extremely sur*prised that the circumstances in the first part of the construction are true —because the second variable of the construction would have suggested otherwise— they may choose to use *X in spite of Y* over *X notwithstanding Y.* This is so because the former construction makes stronger emphasis on the assumption that an event or certain obstacles would have prevented X from happening, when X happens anyway. Consider examples (32) and (33) in this respect:

(32) The morning air was still clear and fresh, **in spite of** all the traffic and the crowd. (CCD)

(33) The morning air was still clear and fresh, **notwithstanding** all the traffic and the crowd. (Altered example for clarification)

In example (32) the speaker is extremely surprised that the morning air was clear and fresh because, in normal circumstances, the enormous amount of traffic would have polluted the air, which was not the case at the time described. In example (33), the situation is the same, but instead of focusing on how much the traffic would prevent the air from being clear and fresh, the speaker emphasizes that the traffic and the crowd where not bad enough to spoil the day.

Another interesting feature of the *X in spite of Y* construction is that it has a wider active zone than other members of its family. This is due to the fact that the connector *in spite of* can introduce either a definite or indefinite X element. Consider the difference in meaning between examples (34) and (35) below in this respect:

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(34) Frank Pesce is the luckiest man alive **in spite of *his*** bad luck. (WebCorp)

(35) I've tried to keep things going **in spite of** bad luck. (WebCorp)

Finally, the analysis of the data in our corpus reveals no differences in meaning between the connectors *in spite of* and *despite,* except for the fact that *despite* tends to be used in rather formal contexts. Therefore, in the construction *X despite Y,* the element introduced by *despite* also presents a surprising fact that goes against the expected situation, as can be seen from examples (36) and (37) below.

(36) **Despite/In spite of** the difference in their ages they were close friends. (CCD)

(37) The cost of public services has risen steeply **despite/in spite of** a general decline in their quality. (CCD)

The construction *Much as X, Y* also introduces or emphasizes a new fact which surprises the hearer because the new information contradicts what has been said before and it was, therefore, unexpected. This new information prevents the hearer from making certain assumptions, since Y directly contradicts those assumptions. In essence, the construction involves an effort on the subject's part to perform an action that does not happen despite X.

As opposed to the *X in spite of Y* construction, in *Much as X, Y*, the information introduced by the connector does not refer to the blocking factors for a state of affairs to hold, but, all the contrary, to whatever allows for such state of affairs to be possible. Another feature that opposes both constructions is that, as mentioned before, the connector *in spite of* introduces intrinsically negativity information, whereas *much as* focuses on the positive or encouraging aspects that would allow for a certain situation to hold. Nevertheless, in both constructions, the actual circumstances are different

from the ones that would logically follow from the first part of the construction, thus surprising the hearer with the existence of an unexpected state of affairs, as in (38) to (40) below:

(38) **Much as** she likes him she would never consider marrying him. (CCD)

(39) **Much as** I'd like to blame you, I know I can't. (MWO)

(40) **Much as** I would like to help you, I'm afraid I'm simply too busy at the moment. (CDO)

The construction *X for all Y,* which also contains a surprise component, is very similar in meaning. However, this construction differs in relevant syntactic and semantic characteristics.

First, the word "all" in the connector *for all* may imply intensity (when the connector is not followed by a verb), or both iteration and intensity (when the connector collocates with verbs that make reference to actions that are repeated) focalizing many attempts of performing the same action, as in example (41) below, which conveys the idea that the person in question has been pushing again and again. By contrast, *much as* involves only intensity, no iteration, as can be appreciated in example (42). If we also compare this construction with the *X in spite of Y*, we realize that, in examples like (43), there exists the possibility that the speaker may have implied that he only pushed once. Therefore, iteration and negativity is what distinguishes *in spite of* from *for all.*

(41) **For all** my pushing, I still couldn't move it. (WR)

(42) **Much as** I pushed, I still couldn't move it. (Altered example for exemplification)

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(43) **In spite of** pushing, I still couldn't move it. (Altered example for exemplification)

Second, the configuration *X for all Y* also presents certain syntactic restrictions that make it differ from *X in spite of Y* or *Much as X, Y*:

(i)   It has to be used with *defined* elements, because it lists a group of possibilities identifying them, as opposed to *X in spite of Y*, which may or may not identify the differences, as seen in examples (34) and (35) above.

(ii)   While *for all* is a prepositional form and may be followed by a noun phrase (e.g. *For all their differences among them, they are all dynamic across the board*), *much as* is conjunctive and has to be followed by a sentence (i.e. *Much as I would like to believe you, I do not*).

Another distinguishing feature of the construction *X for all Y* is that, even though this construction can be used within either of the meaning dimensions shown in *Figure 3* and *Table 7* above, it is not as close to the "opposing" or "obstacle" dimension as other constructions in its family. *X for all Y* conveys the idea that what is observed in X, even if it constitutes an obstacle, is not really important and can be overcome. Consider the contrast between examples (44) and (45) below:

(44) **For all** their differences among themselves, they reached some kind of consensus, some common philosophy of life. (CCD)

(45) **In spite of** the differences among themselves, they reached some kind of consensus, some common philosophy of life. (Altered example for clarification)

In (44) above, the differences between the two subjects did not matter, because they reached a consensus. In (45), the differences between the two are regarded as a

problem that could have prevented them from reaching a consensus, but eventually this did not happen.

Much the same holds for (46), where the X part of the construction makes reference to the obstacles that the speaker feels exist for Y to take place; i.e. the girl is understood to be extremely sensitive, which might prevent her from being tough, but this is not actually the case.

(46) It's pretty hard on such a sensitive girl, but **for all** her sensitivity, she's extremely tough. (CCD)

It is worth noting that the same connector can allow for the inversion of the axiological value of the variables of the construction, such that if X is negative, then Y is positive and the other way around, but it is necessary for X and Y to have opposite polarities. Consider examples (47) and (41) below. The latter has been renumbered as (48) for the reader's convenience.

(47) **For all** his proficiency on the pallet, Ed Miliband still can't speak human. (WebCorp)

(48) **For all** my pushing, I still couldn't move it. (WR)

Example (47) presents a syntactic reversal, as *for all* introduces the Y element (e.g. *Ed Miliband still can't speak human, for all his proficiency on the pallet*). In this sentence, the subject's proficiency on the pallet, which could have been expected to guarantee his ability to "speak human", is seen as not enough for him to do so, whereas in example (48), all the subject's pushing is again not enough to move the given object.

The construction *X against Y*[13] is a purely contrastive construction, as the following examples illustrate:

(49) **Against** Hap Arnold's wishes, Doolittle wangled himself aboard that 16th plane. (COCA, 2012)

(50) **Against** the advice of the 911 dispatcher, Zimmerman followed Martin, according to the 911 recording. (COCA, 2012)

In (49), the wishes of Hap Arnold directly oppose Doolittle's, as he ends up wangling aboard the plane. In (50), the advice of the 911 dispatcher contrasts with Zimmerman's acts, as in the end he chose to ignore such advice and followed Martin anyway.

But this construction also allows to profile a concession meaning by implication when *X against Y* concentrates on the obstacles that would forbid something from happening, as the previous *X for all Y* construction. The difference between both constructions lies in the fact that, in *X against Y,* the state of affairs designated by the expression finally takes place, in spite of any existing difficulties. These difficulties are introduced by the term *against*, thus creating a concession between the blocking factors that would have prevented X from happening and what we know to be the case. In this connection, consider the following examples extracted from the COCA:

(51) **Against** her will, she glanced down, and what she saw terrified her. (COCA, 2012)

(52) **Against** his nature, he allows himself to be pulled for the first time. (COCA, 2012)

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[13]The contrastive use of the configuration *X against Y* will be explained in detail in chapter 6 of the present dissertation.

In examples (51) and (52) above, the traits of character of the subjects in question are no obstacle for them to behave counter to expectations.

The construction *X even Y,* which has several variants (*X even then Y, X even so Y, X even now Y, X even if Y),* brings into the hearer's consideration the Y element that had been previously disregarded by the speaker as irrelevant. As a consequence, the new state of affairs generated by the inclusion of the Y element in the construction always contains more elements than the expected state of affairs. When the conceptual polarity of the construction is positive, the inclusion of such an element is positively surprising, as in example (52) below. On the contrary, if the conceptual polarity of the construction is negative, the sentence generally conveys the speaker's indignation, as in *He did not even receive an invitation to the feast* (COCA, 2015).

In cognitive terms, this construction presents a *meta-concession*, because the speaker has an expectation about what the hearer believes is the case, and accepts it as true. But the speaker adds to that belief (the Y element of the construction), thus creating a counter expectation between what the hearer believes and what the speaker thinks is the case, which is regarded as more important. Consider the following examples extracted from the CCD:

(53) The hotel had everything. There was **even** a swimming pool. (CCD)

(54) People seemed content, **even** happy. (CCD)

In example (53) the speaker is surprised because the hotel had everything he needed or expected to enjoy his holidays. The fact that the hotel also includes a swimming pool, which the speaker did not expect, upgrades the hotel to an even higher standing. In example (54), the speaker did not expect people to share positive feelings

regarding the given state of affairs, so he shows his surprise when he sees that not only people are content, but they also seem happy about the given situation.

The variants *X even now Y* and *X even then Y* show a conflation of the connector *even* and a temporal adverb. These constructions are used to say that it is surprising that something is true at the time the speaker is talking about it, when considering the past state of affairs. The speaker is surprised because he expected the circumstances in Y (which are naturally derived from X) to be different due to some events that took place in the past, or simply because the passage of time would have altered the course of the events, preventing Y from happening. But the state of affairs designated by the Y element of the construction still takes place, which surprises the speaker and cancels out his expectations about Y. In example (55) below, the speaker is surprised because after a week alone in the house, the subject should not expect the man in question to use his keys in the front door, but that is not the case, since the speaker is still expecting to hear him using his keys. The same explanation applies to example (56) where the speaker shows his surprise for still having to lend money to the person in question, since with the passage of time this person is expected to have learnt to save money and be fully self-reliant.

(55) **Even now**, after a week alone in the house, she still expected to hear his key in the front door.

(56) **Even now** that the company has gone public, some 40 per cent of shares remain in the hands of staff or former staff. (BYU-BNC)

In the constructional variant *X even so Y,* the concession relationship between X and Y arises from a dependency relationship: *X so Y* implies that when X happens, Y necessarily happens too, as Y is the result of X happening (i.e. *X so Y* presupposes

that Y is the result of X). When *even* is introduced in the construction, the result becomes the opposite of what would be expected, and a counter-expectation is generated, which changes the value of the construction to 'when X happens Y should not take place but it happens anyway'. The construction thus contrasts the expected and the actual situations.

This construction is usually used in spoken English, and it can be accompanied by other connectors to reinforce the concession relationship between X and Y, as in *He smokes and drinks, but even so I bet he'll live till he's a hundred.* In this example, the particle *so* is anaphoric to "he smokes and drinks" and is not consecutive. When this construction is used, it is necessary to create a pause (orthographically marked with a semicolon) to facilitate the concession connection between the two elements in the hearer's mind.

In example (57) below, the designated state of affairs would naturally produce concern, due to the insecurity associated with having to walk through blind alleys. The speaker, by introducing *even so,* cancels out this expectation assuring that, contrary to what would naturally follow from walking through blind alleys, the hearer should not have any concern:

(57) This could lead you up some blind alleys. **Even so**, there's no real cause of concern.

In turn, the construction *X after all Y* is generally used for consecutive patterns, where there is an evidence-conclusion cognitive model in which the connector *after all*

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introduces the evidence[14], as in *He couldn't buy new property, after all, he lost all his money.* But this configuration can also shift from profiling its originally consecutive meaning to profiling a concessive meaning, within the family of *complementary contrastive* constructions. When this is the case, *X after all Y* can convey, according to the data in our corpus, two different ideas (see *Figure 3,* p.116): (i) that a state of affairs holds despite opposition, as in *He applied for the scholarship after all* or in *Perhaps life was worth living after all*; or (ii) that a state of affairs is more relevant, independently of the truthfulness of other considerations, as in *A university professor is a teacher, after all, not only a researcher.*

In these uses of the construction, the connector *after all* preserves its evidential value of other language contexts, but it also adopts a concessive meaning. This meaning shift is possible by giving more prominence to the conclusion part of the reasoning schema, present in the X part of the construction, while leaving implicit Y, which would be introduced by the connector *after all*. The conclusion, therefore, is used as a way to contradict everything that is implicitly introduced by *after all*, which would otherwise be taken for granted.

On other occasions, *time* is the key factor that distinguishes a given construction from the rest. This is the case, for example, with constructions like *X still Y* and *X all the same Y*[15]. In these constructions, X and Y are two opposing events or states of

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[14]The data in our corpus show that this construction can also be used to introduce the evidence of a (high-level) evidence-conclusion cognitive model. This use of the construction is a metonymic extension of its original contrastive value through the addition of a compatible evidence element. The element introduced by *after all* is the evidence part of the evidence-conclusion cognitive model. In turn, the Y part corresponds to the conclusion of the model. This use of the *X after all Y* construction is observable in examples such as *He knows how to make money; after all, he is an outstanding entrepreneur* or *After all, a university professor is a teacher, so he is expected to teach classes, independently of/despite his administrative and research duties.*

[15]The connector *all the same* does not appear as such in any of the dictionaries consulted. There is, therefore, the need to fulfill this gap in common lexicographic practice.

affairs where the second is maintained over time, which allows for the contrast between both X and Y. In these constructions, the circumstances in X are true, but what matters is that the circumstances in Y, which have not been altered in time, are true as well. In consequence, the existence or reality of the element introduced by *still* or *all the same* is presented as always being the one that holds for the speaker. For example, in the sentence *I realize she can be very annoying, but all the same I think you should apologize for losing your temper with her,* extracted from WebCorp, the speaker is aware that the person in question is annoying, and this fact is maintained over time. But what matters to the speaker is the fact that the subject should apologize. The X element in these constructions is always a fact, while the Y element can either be a fact that is maintained over time (as in *Whatever they have done, they are still your parents*), or a speaker's judgment (as in *I realize she can be very annoying, but all the same I think you should apologize for losing your temper with her*).

The difference between the constructions *X all the same Y* and *X still Y* is that in the former, the fact that the state of affairs has not been altered in time is communicated explicitly (all things being equal at this time), while in the later, the temporal dimension is implicit (i.e. the connector *still* has a temporal dimension not present in *all the same*). In sum, the general meaning of these constructions is that even though the circumstances in X are true, what is more important is that the circumstances in Y, which have not been altered in time, are true as well, as in examples (58) and (59) below:

(58) Just as I reached the bus-stop the bus went off. **Still**, that's life, isn't it? (CCD)

(59) **All the same**, the result was somewhat less decorous than the usual. (BYU-BNC)

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Notice as well that the marker of the construction can take other places within the construction, as can be seen in example (60):

(60) We were too late in submitting an amendment, **but** I ask you to consider it **all the same**. (WebCorp)

The construction *X all the same Y* is very similar to the previous *X after all Y* in form and meaning. The difference between both constructions is found in the speaker's indifference in the former with respect to the content in X: *all the same* conveys the meaning that everything that was said in X is not important, because what really matters is what the speaker is going to introduce in Y. In turn, using the connector *after all*, the speaker implies that after everything said in X (which the speaker admits to be the case), the speaker believes it necessary to introduce another argument (i.e. Y).

In turn, the meaning of the construction *X yet Y* is the same as *X still Y*, as both constructions contain a temporal dimension. We can substitute *yet* for *but still,* sometimes even for *still*, *yet* providing greater contrast than *still.*

The construction *X while Y* also contains a temporal dimension, but while *X while Y* compares two events occurring simultaneously in time, *X yet Y* makes both elements collide, and as such they can be contrasted. This collision explains why the contrast generated by the construction *X yet Y* is more powerful than the contrast that *X while Y* creates. Consider the contrast between examples (61) and (62) below:

(61) It's lightweight, **yet** very strong. (WR)

(62) It's lightweight **while** strong. (Altered example for the purpose of clarification)

In example (61), the fact that the object in question is lightweight is directly opposed to the fact that the object is strong, as being lightweight would not allow the

object to be strong[16]. In (62), the speaker also creates a contrast between being lightweight and strong, but instead of focusing on the contrast between the two characteristics, he focuses on the fact that the object in question has them both at the same time. The construction *X while Y* is therefore closer to the addition than to the contrast cognitive operation, while *X yet Y* is closer to the contrast operation.

The constructions that will be analyzed below are also *concessive*, but these configurations suggest that the speaker does not care about the nature of X and has decided not to discuss it, or that the speaker considers X inferior in importance to Y and therefore decides to defend Y instead of X.

The first of such constructions is the *X even if Y* construction. This configuration suggests that in the hypothetical case that Y were the case, the speaker would not care about Y, focusing on the X element of the construction. The speaker very reluctantly accepts the Y element, but consciously decides not to discuss it, as illustrated by the sentence *Even if you disagree with her, she's worth listening to* (CCD). This construction could be easily identified with *X still Y*, treated above, since both connectors converge in meaning. Consider the similarity in meaning between the following examples:

(63) **Even if** your skin's greasy in summer, you need the protection of a moisturiser to stop it drying out. (BYU-BNC)

(64) Your skin's greasy in summer. **Still**, you need the protection of a moisturiser to stop it drying out. (Altered example for the purpose of explanation)

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[16]According to world knowledge, we regard heavy structures or living beings as stronger than light ones, even though nowadays this conception is starting to change due to the advancements in new building materials such as carbon fiber.

The difference between both constructions is a question of meaning nuance: while the connector *even if* is apparently hypothetical, *still* seems to be factual. Politeness conventions (cf. Brown & Levinson, 1987) also play an important role in the *X even if Y* construction: presenting as hypothetical a situation that the speaker knows to be real, allows the hearer to pull back or cancel something that was assumed to be the case for him, thus allowing him to save face. For example, the sentence *Even if you disagree with her, she's worth listening to* allows the hearer to say that he does not disagree with her and save face.

The construction *X while admitting Y* is very similar in meaning, but with it the speaker shows a stronger commitment to his own opinion (which is the Y element of the construction, usually expressing ideas, opinions, or the likelihood of an event) than to the existing, non-debatable fact itself (which is the X element of the construction). For this reason, in this construction the Y element is more debatable than in the previous *X even if Y* construction. Sometimes this construction can be replaced by the construction *X although Y*[17]*,* because the meanings that these two constructions profile are neutralized in practice. Nevertheless, each construction introduces different shades of meaning, as the following examples illustrate:

(65) **While admitting** that his testimony to Congress in 1986 had contained inaccuracies, he denied that it had been his intention to mislead the investigation. (BYU-BNC)

(66) **Although** his testimony to Congress in 1986 had contained inaccuracies, he denied that it had been his intention to mislead the investigation.

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[17]*X Although Y* has always been understood as a neutral marker, but it can also have this concessive value that many grammarians have ignored.

In example (65), it is not certain whether his testimony had inaccuracies, or the subject was simply forced to admit it did. Thus, it is hypothesized that his testimony *could* contain inaccuracies. By contrast, in example (66), it is certain that the testimony in question contained inaccuracies. This is so because, even though the construction *X although Y* also makes the X element less emphatic in relation to Y, this construction has a more restricted active zone, establishing a concession relation only based on verifiable facts.

It is now necessary to distinguish between the *X although Y* and the *X though Y* constructions, which are almost identical in form and meaning. These configurations are generally interchangeable, but they introduce slight nuances of meaning, as will be clarified in the following lines.

In the configuration *X though Y,* the connector *though* introduces new information to the situation described by X, making X less emphatic in relation to Y (i.e. the focus is directed to the Y part of the construction). The speaker adds a new comment (i.e. the Y element of the construction) about the fact he is talking about (i.e. the X part of the construction) in a different direction, often a new idea that may contradict X to a certain extent, as in *She resembled her mother physically, though not mentally* (CCD).

Though can also be used to introduce the element for which something would logically not occur, but which does not prevent it from happening. In these cases, the speaker is surprised that something is the case, because all the circumstances would have suggested otherwise, as in (67) below, where the speaker would not, in normal circumstances, agree with a decision that was not entirely his own:

(67) It wasn't entirely my decision, **though** I think that generally I agree with it.

In the constructional variant *X even though Y*, the word *even* only works as an intensifier of the surprise generated by the contrast between the expected situation and the actual state of affairs, as in *The real story of a bank robber who willingly went to prison even though police never caught him* (WebCorp).

In turn, the construction *X although Y* has a more restricted active zone, as could be seen in *Figure 3* above. While *X though Y* can concentrate both on the obstacles for something not to take place or on giving more prominence to a certain state of affairs than to another, the configuration *X although Y* only makes the X element less emphatic in relation to Y. Another feature that distinguishes both constructions is that in the configuration with *although,* the speaker assumes that the hearer agrees with what has been previously stated, establishing a concessive relation only based on verifiable facts. This characteristic is not present in the configuration with *though*. Consider the following examples in this respect:

(68) It is estimated that the majority of adults have a speaking vocabulary of 3000 to 5000 words **although** their reading vocabulary may well be more. (BYU-BNC)

(69) **Although** I advise the children about money, I never actually pay their debts. (CCD)

(70) **Although** he was late he stopped to buy a sandwich. (CCD)

In example (68) the verified data with respect to the speaking vocabulary of adults contrasts with the hypothetical bigger amount of speaking vocabulary that they may have. Likewise, examples (69) and (70) are based on verifiable facts, that is, the hearer can confirm that the person in question has advised the children about money in (69) and that the subject in (70) was late.

The next construction on the list is *X regardless Y*. This construction also highlights the second element of the construction over the first. But, in contrast to the other constructions previously analyzed, where disregarding the Y element depends on the speaker's opinion or decision, in this construction doing so is internal to the content of the proposition. This construction literally means that, since the speaker can disregard Y, X is what matters. In *X regardless Y* there is no need to include the speaker's assessment. By contrast, *X in spite of Y* always includes the speaker's opinion. In some contexts, this difference is neutralized, as in some of the examples below:

(71) If they are determined to strike, they will do so **regardless** of what the law says. (CCD)

(72) If he felt he wasn't ready then he wouldn't show, **regardless** of the commitment. (BYU-BNC)

(73) Every day is beautiful to the Community, **regardless** of what is happening outside. (BYU-BNC)

In other examples like (74), (75), and (76) below, the construction selected can introduce subtle differences into the overall meaning of the text. In (74), it seems that by selecting the construction *X regardless Y,* the disease in question had nothing to do against the treatment used by the doctor. By contrast, with *X in spite of Y,* as in example (75)*,* the hearer would understand that the disease in question was stronger than in the previous case. Therefore, the emphasis in (74) is on the effectiveness of the treatment, whereas in (75) it is on the nature of the disease. The same explanation applies to example (76) below regarding how fuel prices change:

(74) Dr. Gerson became convinced that the treatment helped the body to heal itself, **regardless** of the nature of the disease. (BYU-BNC)

(75) Dr. Gerson became convinced that the treatment helped the body to heal itself, **in spite of** the nature of the disease. (Example created for the purpose of argumentation)

(76) The British study for the Intergovernmental Panel on Climate Change indicates that **regardless** of how fuel prices, whether uranium or fossil, change, nuclear power has a declining role in British energy production up to at least 2020. (BYU-BNC)

As for the configuration *X besides Y*, this construction is not prototypically *complementary contrastive*, but it can adopt this function depending on the context in which it is used: the connector *besides* may have merely additive uses, as in (77) below, or uses where, besides displaying an additive meaning, the connector also generates a degree of contrast between the X and Y elements of the construction, profiling a complementary contrastive meaning, as in (78):

(77) **Besides** its famous cakes, the bakery also makes delicious breads and cookies.

(78) This hamburger is delicious **besides** being healthy.

In (77), the speaker simply adds delicious breads and cookies to the list of items the bakery makes, cakes being the most prominent. By contrast, in (78), the fact that the hamburger is delicious directly opposes the fact that it is also healthy, because speakers tend to associate delicious food with food rich in calories or high contents in sugar, identifying eating delicious food with unhealthy habits.

From a non-constructionist perspective, Hannay et al. (2014) claim that the connective *besides* tends to occur in argumentative settings and that, rather than just providing an additional argument to the previous ones already presented, *besides* introduces a crucial point to the discussion, the argument that seals it. These authors distinguish two environments where *besides* occurs: an environment where *besides* precedes a final objective argument, which serves to reinforce and clinch the ongoing discussion (commonly signaling an afterthought), and a second environment, where the 'besides argument' is typically different in kind from the preceding argument(s), bringing a personal, attitudinal dimension into the discourse. Apparently, in this latter use, the 'besides argument' represents an all-powerful argument, with a sense of 'absoluteness' suggesting that all other possible arguments are superfluous to the discussion.

From our point of view, this claim is not completely accurate. The 'besides argument' is not *all-powerful,* it is just a new argument introduced by *besides*; even though the rest of the elements in it are valid, the speaker wants the hearer to focus on the one element that the hearer was not taking into account, maybe because he had not realized that it existed. The distinction the authors make between the two environment-types of *besides* is simply, in our view, a metonymic extension in which the second meaning of *besides* derives from the first. In other words, these two senses are not independent: the first captures the fact that the speaker assumed that the hearer was forgetting an element (this element does not need to be the one that necessarily prevails), and, derived from this primary meaning, the second one stresses the fact that the element the hearer allegedly forgot is the most important; hence the need to focus on it. In their explanation, Hannay et al. (2014) suggest that the other elements are superfluous, but this does not seem to be the case according to the data

in our corpus. The fact that one element has prominence over the others does not necessarily mean that the other elements can be ignored: the connector *besides* does not cancel out the other elements; it just introduces an element or an argument that is more powerful than the rest, thus arranging the elements according to their degree of importance.

The construction *X anyway Y* also shows this tendency of ordering the arguments as to their degree of importance, as in *He'd replied that this wasn't a sound reason, and **anyway** he'd only die on her* (BYU-BNC) where *anyway* introduces the most important –or sealing argument– in the discussion. The difference between both connectors is that *besides* focuses on the element that was being ignored in the argument, while *anyway* minimizes the importance of what has been previously said, thus highlighting the relevance of Y.

Finally, the construction *X but Y* can also profile a concessive meaning. As is the case of many of the constructions that we have discussed, the connector *but* also introduces a new element into the construction which shows that the speaker is deeply surprised. For example, in (79) below, the speaker did not, by any circumstances, expect the carpet cleaner to be effective:

(79) A cheap **but** incredibly effective carpet cleaner. (CCD)

In our capitalistic society, we tend to assign things the value we pay for them. So, in general, expensive things are considered more valuable and are axiologically more positive than cheap things, which are generally considered of inferior quality. In (79), *cheap* is directly opposed to *effective*, and a cheap cleaner (therefore not valuable, not appropriate for its purpose) is not expected to be effective, a very positive quality for a carpet cleaner. The selection of a *complementary contrastive* construction is therefore

justified, since it allows the speaker to combine two apparently opposing and irreconcilable ideas. The fact that this combination is possible is what surprises the speaker. A similar explanation applies to the example (80), in which the speaker assumed that the bear was not very powerful because it was the same height as the speaker. However, this was obviously not the case.

(80) The bear was about my height when it stood up, **but** round and large and powerful. (CCD)

A characteristic feature of this construction is that it has a wider active zone than other constructions, because it shows no restriction of time (as opposed to *still*, *yet*, *even now*), location (cf. *besides*) or manner in which the events take place (cf. *however*, *anyway*, *anyhow*) and it does not need to depend on previous expectations of inclusion of elements in X as is the case of the marker *even*. Being so neutral, this construction could be substituted for any of the constructions analyzed above. This phenomenon is appreciated in example (81), where the marker *but* could be replaced by *in any case, all the same, however, anyway* and other concessive connectors but with subtle differences in meaning:

(81) She wasn't trying to look coquettish, **but** she seemed a little silly all the same. (BYU-BNC)

Notice that this example is concessive because *but* is accompanied by *all the same*. The reader should not take *all the same* to be one of the markers analyzed in this chapter, since in this case, *all the same* serves to reinforce the speaker's opinion and has no discursive value; instead, its function is to reinforce the idea that even though the subject in question did not try to look coquettish, no matter what she did she seemed a bit silly.

In any case, when this construction is used, the attention of the hearer is directed to the Y element due to its surprising effect, making Y more prominent than X. The meaning this construction profiles is very similar to the meaning profiled by *X though Y.* But *X but Y* adds a stronger feeling of contrast than *X though Y*, as can be appreciated from the comparison between the following examples:

(82) The chapel was just an ordinary, crumbling box, **but** inside was the most magnificent marble altar. (CCD)

(83) The chapel was just an ordinary, crumbling box, **though** inside was the most magnificent marble altar. (Altered example)

In both (82) and (83), the chapel brings together two features that create a surprising contrast: its external decayed appearance and its impressive interior. However, the overall value of the chapel seems higher in the example with *but*, since *X but Y* focuses on the Y element (i.e. the magnificent altar). By contrast, the focus in the *X though Y* construction is more evenly shared between the X and Y elements (although the second element is also considered more important than the first), which minimizes the chapel's appraisal.

The case of the construction *X but then Y* is different. *But then* is an amalgam of a conjunction (*but*) and a discourse marker (*then*) that takes on new discursive value. Through experiential conflation, speakers easily identify the chronological order in which events occur with the evidence that these events have occurred. A metonymic extension of the original temporal meaning of *then* is generated, which causes *then* to acquire a new evidential meaning. *If A then B* means that if B has occurred, then A must have occurred. The existence of B, then, is evidence for the existence of A (i.e. if there is a second floor in a building, then there must be a first floor). *But* is introduced

in the construction to contrast or contradict a false assumption that the hearer may entertain. The connector *but then,* therefore, is halfway between the evidential and contrasting meaning values. Consider the following examples:

(84) Death still seemed impossible **but then** I suppose it always does. (BYU-BNC)

(85) It was fairly obvious that Jo did not want to be recognized**, but then** who would with Nevil in town? (BYU-BNC)

When X and Y are two opposing states of affairs, the construction *X but then Y* is used to signal the fact that Y takes place right after X has taken place. The fact that X and Y occur so closely in time intensifies the contrast between both elements. This explains why this construction cannot be replaced by constructions containing connectors that show a moderate contrast or that do not mark that Y takes place after X like the *X though Y* construction, as the following example (86) illustrates:

(86) She thought it was the squirrel again, **but then/*though** realized it was something moving jerkily in the hollow of a decayed tree below her and close to the beech. (BYU-BNC)

5.3 Correcting complementary contrastive constructions

Correcting complementary contrastive constructions comprise the following configurations: *X anyway Y; X anyhow Y; X at any rate Y; X at least Y; X but Y; Not only X but Y; X even (so) Y; X howbeit Y; X never mind Y; X on/to the contrary Y; X though Y; X yet Y;* and *X even more/less M than N.*

The complementary contrastive relation between the X and Y elements can sometimes be the result of the speaker's need to correct or modify the content elements of an utterance that has been uttered, whatever its illocutionary force. This meaning profile is generally activated in one of the following scenarios:

(i)   The speaker says Y because X is too vague to be understood as in *Come early evening. After tea-time, at any ra*te.

(ii)   The speaker says Y because he has realized that X is not completely right as in *They felt, or at any rate Dan felt, both relieved and still frightened*.

(iii)   The speaker says Y because X has been too strong or too restricting as in *That's all it ever did. As far as we knew, anyhow*.

Therefore, the correction or modification that characterizes this constructional family can be made by specifying the content of the statement (as is the case with scenario (i)), by cancelling the statement out by changing all or part of it, or by adding new information that cancels out the previous incomplete statement (scenarios (ii) and (iii)). The difference between these two mechanisms (i.e. specification and correction) is that, by means of the first, the speaker adjusts the new information to the old one, whereas, by means of the second, he cancels out the old information in order to focus on what is new.

In the first scenario, where the speaker feels the need to specify the information he has just given, the correction is carried out through an adjustment. In this case, X and Y are not in complete contrast, and Y is dependent on X to a certain degree. When we correct by specifying, a first general idea gives access to a particular idea within that domain, giving as a result a target-in-source metonymy based on a domain

reduction cognitive operation (see *Figure 4* below). In this scenario of possibilities, if X holds, Y will hold for sure.

By contrast, when specifying is not enough and the speaker feels the need to correct his previous statement, as in scenarios (ii) and (iii), part of the content of X is eliminated in favor of the new concept Y (see *Figure 4* below).
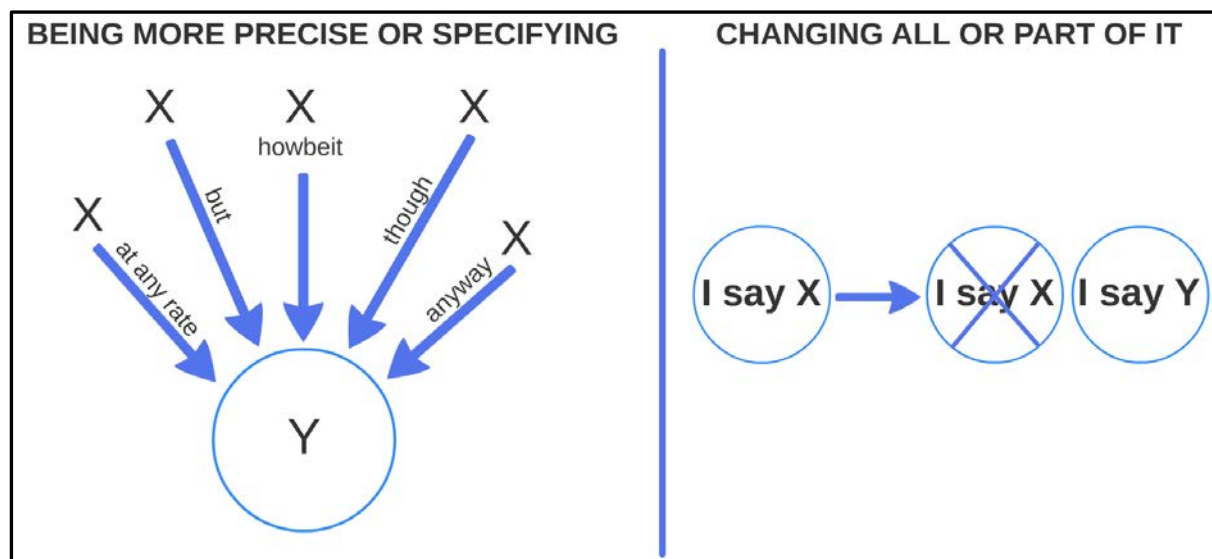
Figure 4. Profile 3 cognitive operations

Again, most of the connectors that participate in the aforementioned constructions have traditionally been treated as equivalent from a lexicographic perspective. However, these connectors display subtle but important differences in their meaning structure. The following lines give a comprehensive account of each of these constructions focusing on those meaning subtleties that distinguish them from one another.

To begin with, the constructions *X anyhow Y* and *X anyway Y* are used when the speaker believes that Y is true but he is not certain about the truthfulness of all the content in X. This use is observed in the following examples:

(87) All of them? I ask. Some, **anyway**. (CCD)

(88) That's all it ever did. As far as we knew, **anyhow**. (CCD)

(89) He never said anything against him, not in my presence **anyhow**. (2011, COCA)

In example (87), the word *some* modifies the previous implication by which all the individuals where included in the group, clarifying that maybe not all, but at least some, were (whatever they were). In examples (88) and (89), the speaker corrects his statement, as he becomes aware of the possibility of the subject doing or saying other things that he may not know about, concentrating on the things he is sure the subject may have done/said. In all these examples, a high-level target-in-source metonymy is responsible for the understanding of the construction, as can be appreciated in *Figure 5* below:
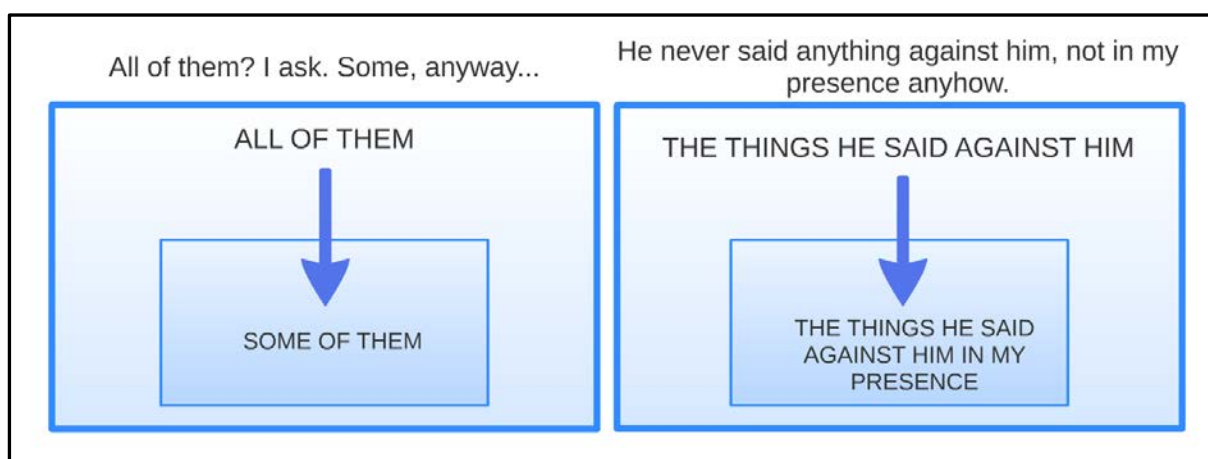

Figure 5. Target in source metonymies of examples 87 and 89

In other cases, the constructions *X anyway Y* and *X anyhow Y* serve to correct a particular statement by cancelling out what has been previously said, as in the following example extracted from the BNC corpus:

(90) He probably wasn't a policeman **anyway**, more likely a member of the KGB. (BYU-BNC)

According to corpus data, there is no difference in use between the constructions *X anyway Y* and *X anyhow Y*. These two constructions can therefore be used indistinctively when they profile the need to modify a particular assumption. In the case of the configuration with *anyhow*, the construction literally points to the way the actions are performed, whereas with *anyway* the same meaning is accessed through the high-level metaphor MEANS TO ACHIEVE A GOAL ARE PATHS TO REACH A DESTINATION.

The constructions *X at least Y, X in any case Y* and *X at any rate Y* also serve the function of correcting a particular statement by being more specific. In these constructions, the circumstances in Y are part of the X situation, and thus the speaker mentions the circumstances in Y to be more specific. The difference between these constructions is that, while *X in any case Y* concentrates on the fact that what happens does not matter and generally profiles a concessive meaning, *X at any rate Y* focuses on the fact that the degree in which something happens does not matter. By contrast, the construction *X at least Y* concentrates on a particular element within the group of elements previously mentioned, reducing the X domain to Y. In practice, these three meanings have converged to imply that Y is more important than X, because Y is more accurate or correct than X. This explains why in most contexts, these three constructions are completely interchangeable without apparent differences in meaning, as in (91), which was originally expressed using the construction *X at any rate Y:*

(91) They felt, or **at any rate/in any case/at least** Dan felt, both relieved and still frightened. (CCD)

In (91), the speaker first says that all the members of a particular group of people felt relieved and frightened, but being aware that not all members in the group might

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have felt the same way, he subsequently focuses on a particular subject within that group that he knows felt that way for sure, correcting his first statement by means of this specification.

The following examples, (92) and (93), extracted from the BNC provide additional evidence in this regard:

(92) There was something rather reckless in my attending the present lectures at all, because it was in the depths of winter, and from where I now lived it was rather a long walk to the town — over a mile, **at any rate**. (BYU-BNC)

(93) The hooligans **– at least** two strong men – are believed to have rocked the seats until the bolts snapped. (BYU-BNC)

In other cases, this type of correction by specification may become a concession when the reason for the correction is that the speaker believes X is too restrictive. In any case, the marker *at any rate* within this meaning profile can always be replaced by *at least,* and vice versa. But the degree of concession seems to be greater in the constructions with *at least* than with *at any rate.* This can be observed in example (94) below, where the speaker asks the hearer to come early (a general, vague term), but then adjusts the meaning of *early* to *after tea-time*, a more specific time later in the day but still within the early evening domain that allows the hearer to come later:

(94) Come early evening. After tea-time, **at any rate**. (CCD)

As for the *X howbeit Y* construction, it is worth noticing that the connector *howbeit* is not included in the CCD, and that other dictionaries such as the MWO define this term as "although", as if these two connectors were identical in meaning. But these configurations are used in very different situations: with respect to *X howbeit Y*, the propositions X and Y are part of a scenario where the X part of the construction lists

the positive characteristics of the situation while the Y part of the construction lists the negatives, positing X in direct contrast to Y. Both X and Y hold, but the connector *howbeit* introduces the speaker's personal judgment (the Y element of the construction), making the listener perceive the whole situation as negative. In turn, Y creates a counter-expectation in a scenario where what was expected was the positive content of the X part of the construction. This counter-expectation, a very common psychological phenomenon, attracts our attention, leading the hearer to focus on the second and more negative part of the construction. Such attention selection mechanism towards unexpected elements is manifested constructionally in language by means of configurations like the one under scrutiny. In any case, this construction is becoming obsolete. Only four examples of it were found in the COCA, three in the BNC and one in the *Merriam Webster Dictionary Online*. The following are two of these occurrences:

(95) Our visit to Niagara Falls was very pleasant, **howbeit** slightly shorter than we had planned. (MWO)

(96) The shepherding within the house church movement has also met a need in people seeking direction, **howbeit** often given in an over-paternalized way. (BYU-BNC)

Conversely, the construction *X though Y* also contrasts the propositions X and Y, but Y can be either positive or negative. This is due to the fact that this construction has a wider active zone, allowing the overall meaning of the construction to be either positive or negative (such positivity or negativity has to be parameterized in context). As with *X howbeit Y*, the connector (*though* in this case) introduces the speaker's judgment into the sentence, which means that if Y is regarded as positive by the

speaker, the overall meaning of the construction will also be positive, and vice versa. But, unlike *X howbeit Y*, *X though Y* can activate two meaning zones:

(i)   Y can add new information to correct what has been said in X, preventing someone from thinking something that may follow logically from what has just been said.

(ii)   It can provide new information to increase the information available on the X scenario, adding something that contradicts what has been previously stated. It is worth remembering that the construction *X though Y* has a dual function: it can either serve to create concession or to correct a false assumption made by the speaker.

These two possibilities are displayed by the following examples:

(97) She was quite sweet, **though** annoying. (CCD)

(98) The classrooms are small, **though** not unsuitable. (CCD)

(99) I can't stay. I'll have a coffee, **though**. (CCD)

(100) It's not very useful. It's pretty, **though**… isn't it? (CCD)

In (97) the X part of the construction provides the positive information the speaker has about the subject of the sentence, which may lead to the erroneous conclusion that the speaker liked the subject in question. The connector *though* introduces a negative aspect about the subject (she was annoying) preventing the addressee from reaching the unwanted conclusion that the speaker completely liked the subject. The same phenomenon takes place in the rest of the examples, but in these cases, the purpose of the Y part of the construction is not to extend our knowledge of X, but just to correct an erroneous assumption or implication (i.e. that a small classroom is

unsuitable in (98), that the subject cannot have a coffee with the hearer, (99), or that the speaker would not buy something unusable even if it were pretty, in (100)).

This justification simplifies the explanation of the use of the connector *though* in context, since it does not matter if *though* acts as a conjunction or as an adverb in the sentence.

Now, it is necessary to distinguish between the constructions *X though Y* and *X although Y* when they are used to correct a given assumption. The connectors *though* and *although* have also been treated as equivalent in dictionaries, but depending on the context, one construction is preferred to the other. The connector *although* establishes a fact and it can be replaced by *though* at the beginning of a sentence, as in *Although he was late he stopped to buy a sandwich.* But if *though* is at the end of the sentence, it is tinged with subjectivity and takes on a more contrastive meaning, as in *The house isn't very nice. I like the garden though.* To see if the opinion introduced by *though* is positive or negative, the hearer will have to parameterize its meaning in context, according to textual and contextual factors.

Sometimes, the contrast introduced by *though* conveys the feeling that such a contrast is being softened or minimized, as in (99) above (e.g. *I can't stay. I'll have a coffee, though*). In these cases, X and Y seem to be in a concessive relation, more than in direct contrast. This is possible because the relations of concession and contrast are very close in meaning and can sometimes merge in practice.

Another construction that requires the proposition X to be syntactically negative as in the case of the *X howbeit Y* construction is the construction *X on/to the contrary Y*. In this configuration the speaker cancels/corrects previous expectations contained in X, making Y conceptually more prominent. The difference with previous similar

constructions is that the syntactic negativity contained in X combines with the connector *on the contrary* to form the proposition Y. As was also the case with the construction *X howbeit Y*, by means of a change in focalization from X to Y, the Y part of the construction becomes more prominent, but in this case, the selected lexical elements are as important as the form of the construction for the correct realization of the sentence in question. Consider the difference between the examples (101) and (102) in relation to this issue:

(101) There was no malice in her; **on the contrary**, she was kind. (BYU-BNC)

(102) Not that the prison was successful in its intended goal of reforming criminals; **on the contrary** its failure in this respect was almost immediately apparent. (BYU-BNC)

Example (101) corrects the previous presupposition contained in X by which it was assumed that there was malice in her, while in (102) what is cancelled is the presupposition that the prison was anyhow successful. This last example may seem to be simply a contrastive one (successful versus unsuccessful) with no addition or complementariness. However, this is not the case, as the speaker adds more unsuccessfulness to the already unsuccessful level of effectiveness of the prison in question.

In turn, in the construction *X even so Y* the circumstances in the X part of the construction would logically forbid the circumstances in Y from happening, but Y happens anyway, as in *He smokes and drinks, but even so I bet he'll live till he's a hundred* (CCD). World knowledge suggests that people that smoke and drink tend to have shorter lives than healthier people, which would lead to believe that the subject in this example would not live much longer. Instead, the speaker conveys the idea that

the subject in question will live for many years, no matter how much he drinks and smokes.

In *X yet Y,* the circumstances in Y prevent someone from thinking something that may follow logically from what has just been said in X. This connector contrasts two different and apparently opposing propositions, as in example (61), discussed previously, *It's lightweight, yet very strong* (WR), to prevent the hearer from thinking that these two opposites cannot commune (i.e. the hearer cancels the implication that a lightweight person is necessarily weak). This connector can sometimes be replaced by *still.* Lightweight is permanent in time. It is an attribute that has an immanent duration, which means that we can conceive them as two events that are maintained in time.

Besides the constructions that are formed by the X and Y elements linked by a connector, other types of configurations also find a place within this profile. For example, the formula *X even more/less M than Y* is used when the speaker in question believes that the given state of affairs was different from what it really is (i.e. it is actually greater/more insignificant than expected by the speaker) making him/her cancel the expectations about the given situation. In this configuration, the *M* element is an adjective that qualifies the situation in X, as in (103) below:

(103) I must be **even more** tired than I thought. (CCD)

In this sentence, the X and Y elements are also in contrastive alternation, because they represent two different situations that are in contrast (the degree of tiredness in one contrasts with the degree of tiredness in the other) but they are at the same time complementary, as both help the hearer picture the speaker's surprise at his degree of tiredness.

Finally, the construction *X but Y* can also be used to correct a particular statement or assumption. In this use of the construction, the speaker begins by saying that two things are alike in X to later list the features which make one different from the other in Y. The purpose behind this use of the construction is to help the speaker to correct his statement or to be more precise by cancelling out the previous statement and preventing the hearer from thinking that the two compared elements are identical. This construction necessarily corrects the speaker's, and not others' declarations by adding new information, as in the examples below:

(104) She looks like her brother. **But** better. (BYU-BNC)

(105) She was remarkably like Eleanor, he thought, **but** better. (BYU-BNC)

(106) Our Netflix alternatives are like Netflix **but** better. (Google[18])

In these three examples, the speaker compares two elements, assuring that they are identical to each other. But the connector *but* allows the second element to incorporate some features that the first element did not have. In our view, this construction is not simply a *contrast* construction, because its function is not simply limited to a mere comparison between elements; it also adds new relevant information that is necessary to contrast the second element with the first.

In other contexts, the construction corrects a given statement by being more specific, as in examples (107) to (110) below:

(107) So Ruth told her the truth, **but** not quite the whole truth since she kept Dick's name out of it. (BYU-BNC)

(108) The Lords reversed, **but** not on this point. (BYU-BNC)

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[18]https://freesiteslike.com/free-sites-like-netflix/ last accessed 13/01/2016, 11:29.

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(109) You have therapies that are pretty good, **but** not perfect, at fixing the damage. (COCA, 2012)

(110) Single subject designs and regression discontinuity designs are often, **but** not always, included. (COCA, 2012)

The *Not only X but Y* configuration is a variant of the previous *X but Y* construction. *Not only* allows the combination of what is known to be the case, contained in X, with the new information the speaker reveals, contained in Y. Speakers use this construction when they realize that a statement is not totally right, because the information it contains is not complete, as in (111) below:

(111) We became **not only** friends, **but** brothers in a brotherhood that lasts a lifetime. (WebCorp)

In this example, family bonds are opposed to friendship; being brothers involves more togetherness, since family bonds are understood to be stronger than friendship. However, using a *complementary contrastive* construction, the speaker can combine both bonds in one relationship, implying that their friendship is stronger than the hearer had assumed. In the same vein, the iteration of the construction *Not only X but Y* in the following example (112) takes this strong relationship to another unexpected level:

(112) …in a series of revelations, we learn that Oliver and Oswald are **not only** colleagues, **but** brothers; and **not only** brothers, **but** twins; and **not just** any twins, **but** separated Siamese twins[19].

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[19]*The Films of Peter Greenaway: Sex, Death and Provocation*, by Douglas Keesey (pp. 34-35).

5.4 Topic changing complementary contrastive constructions

Topic changing constructions comprise the following configurations: *X anyway Y; X in any case/in any event Y; X be that as it may Y;* and *X but Y.* These constructions are used to change the topic or to return to a previous topic in the discourse, but accepting what has been previously stated. Each of these constructions introduces subtle differences in meaning, but in practice, what these four configurations transmit is that what is contained in X is not important for the speaker, because what really matters to him is Y. This general/common meaning is achieved by means of the application of the GENERIC FOR SPECIFIC metonymy, which gives access to the what-really-matters-is-Y meaning.

This constructional profile is generated by means of a re-specialization of the second constructional profile, formed by *concessive* constructions: when speakers choose to change the topic of conversation, it is because they regard another topic as more important than the one they are involved in. As was the case with *concessive* constructions, speakers accept the first element of the construction (the topic of conversation they are involved in) but regard the second element of the construction (the new topic they want to introduce in the conversation) as more important than the first. Being *complementary contrastive*, these constructions allow speakers to change the topic of conversation in a politer way.

As discussed in section 5.2 of this chapter, in the *X anyway Y* construction the *manner* or *way* in which X occurs is not important, because the speaker regards the existence of Y as more important than X. The connector *anyway* is based on the experiential conflation between a goal and the path followed to reach that goal,

generating the MEANS TO ACHIEVE A GOAL ARE PATHS TO REACH A DESTINATION metaphor. The idea contained in this construction is that the speaker does not care about the path to reach the given goal or destination, because he does not care about the destination itself either. By using this construction, the speaker changes the path a discourse was metaphorically taking and corrects this deviation by taking a new path that will lead him to utter the proposition in Y, his final communicative goal, as can be seen in (113):

(113) She was on trial for his murder. It sounds like a squalid business. **Anyway**, Agate was in court when the woman was asked what was her first thought when she realized what had happened. (CCD)

The construction *X be that as it may Y* follows a similar pattern, but in this case, it does not matter whether the circumstances in X hold, because Y is true or more important than X whatever the circumstances. Consider in this respect the following examples, where the speaker changes the topic completely using the connector *be that as it may*:

(114) "I understand that, and yes, my youth has caused some to doubt my ability. I wonder why that is, that we do not expect a lovely young woman to be involved in the medical field. Stereotypes are sometimes difficult to overcome". He propped his elbows on the arms of the chair and steepled his fingers. "**Be that as it may**, tell me about yourself. What brings you here and where do you dream of going?" (COCA, 2010)

(115) Council feels that the crypts are in such bad repair, they could be dangerous. "How could they be dangerous if everyone who's in them is dead?" Hannah asked. Andrea and Bud burst into laughter, and Hannah noticed that Delores did all she could do to keep a straight face. "That's not very nice, dear", she chided her eldest daughter. "But it's funny", Bud said, still chuckling. "And it's true", Andrea added. "Well**, be that as it may,** the council decided to take down the crumbling mausoleums and relocate the... um... contents". (COCA, 2010)

Regarding the *X in any case/event Y* construction, in this configuration Y is important, but not necessarily more important than X. It conveys the idea that Y will occur in every circumstance, regardless X. The markers *case* and *event* are totally interchangeable, as can be appreciated in examples (116) and (117) below, which were originally expressed with the connector *in any case:*

(116) That was when the trouble started. I don't know what he did. Perhaps he did nothing. **In any case/event**, there was a brief scuffle. (CCD)

(117) This may be true, but there are other offences to deal with that aspect, and, **in any case/event,** violence in private raises the same issues of physical integrity and self-determination. (BYU-BNC)

This degree of variation is possible for the following reason: According to the WR dictionary, *case* stands for "one instance or an example of the occurrence of something". In turn, *event* is defined as "something that happens, something that occurs in a certain place during a particular time". These two interpretations converge in practice, despite a subtle difference in meaning: *in any case* is focused on providing

an example of the event in question while *in any event* is focused on the possible event itself.

The last construction that is used to change the topic of discourse within the *complementary contrastive* constructional family is *X but Y.* This construction allows speakers to talk about two completely unrelated elements consecutively. In so doing, they bring about an abrupt change of topic, as can be seen in the following example:

(118) "Oh, Grandpa, I'm so sorry I lied to you". He interrupted her. "You shouldn't have done that. **But** tell me about soccer. Does the coach think you have talent?" (COCA, 1997)

In other cases, the two compared elements are not completely unrelated, but the speaker decides to talk about only one of the elements, as in the examples below:

(119) I loved God with all my mind. **But** what about my heart? (COCA, 2015)

(120) Yeah, we got him behind bars, **but** what about her? (COCA, 2015)

(121) I think Brooks has actually looked towards British humor as a guiding light in this respect- **but** another thing that he brings in is the comedy of being Jewish. (CCD)

5.5 Topic avoiding complementary contrastive constructions

Topic avoiding complementary contrastive constructions comprise the following configurations: *Leaving aside X, Y; X but Y;* and *X never mind Y.* These constructions are used when speakers openly want to admit that they would rather not discuss or consider a particular subject or aspect of something, helping the speaker to avoid

talking about a particular condition and directing the conversation to a different aspect of the same conversation.

To begin with, in the construction *Leaving aside X, Y*, the first variable of the construction represents an idea that the speaker chooses not to discuss in favor of discussing the idea contained in the second variable. This configuration is based on the IDEAS ARE OBJECTS metaphor, and its linguistic motivation is found in our embodied experience (cf. Gibbs Jr., 2006a). Our bodily nature (including perceptual mechanisms and motor programs) makes us place different objects in front of us, on a table, on a flat surface, etc., to classify them. We place the most important objects in front of us, or close to us, while the objects that are not so central, will be placed to the sides, because they fall out of our view (humans have some peripheral vision, and can tell that certain objects are there when they are placed to the sides, but cannot detect them with as much precision as the ones in front of their field of vision). Therefore, using this construction, the speaker implies that he metaphorically takes and leaves an idea (the element introduced by the connector *leaving aside*) in a place that will not disturb his line of thinking or the logical order of his argumentation. In practice, this configuration generates a contrast between the X and the Y elements, favoring Y over X. Thus, our attention is directed to the Y element, taking X for granted or understanding X as an unimportant element, as in example (122), where the speaker openly admits he would rather not talk about the disadvantages (but without forgetting that they exist and that it is also necessary to take them into account), because what he really wants to discuss with his audience are the advantages of the topic of discussion in question:

(122) **Leaving aside** for a moment a discussion of the disadvantages, let's turn to the advantages. (CCD)

In turn, the *X never mind Y* construction points to the speaker's nonchalance towards what he/she has just uttered in X, changing the topic of discussion to Y. In example (123) below, the speaker thanks the hearer (i.e. Frank) for what he has done. When Frank asks why the speaker is thankful, the speaker prefers not to discuss this information with the hearer and takes an unexpected turn in the conversation:

(123) "Thanks, Frank". # "Huh? For what?" # "**Never mind.** Did you eat yet?" # "No, I just got out of the gym". (COCA, 2012)

In the case of the *X but Y* construction, the argument or idea that the speaker has or wants to discuss is Y, not X. Unlike the previous *Leaving aside X, Y* construction, the speaker choses to discuss or mentions both X and Y, but regards Y as a more important argument to be considered in his discussion. Consider the following examples:

(124) Later we'll be discussing the films of Alfred Hitchcock, **but** first, this week's new releases. (CCD)

(125) I know they need to recruit more people into the prison service. **But** another point I'd like to make is that many prisons were built in the nineteenth century. (CCD)

The main difference between the previous topic-changing use of *X but Y* and the former topic-avoiding *X but Y* is that in the first, the speaker considers that the discussion about X is solved (even if it may not), and directs the conversation towards another topic or direction in Y (see section 5.4 above). By contrast, with the topic-avoiding *X but Y,* the speaker clearly prefers not to talk about X and directs the conversation to Y instead.

5.6 Refusal-apology complementary contrastive constructions

Refusal-apology complementary contrastive constructions comprise the following configurations: *Excuse me/I'm sorry but Y; X anyway Y; X anyhow Y*; and *X all the same Y.*

These constructions are used to introduce a reply to someone to indicate reluctance, disbelief, refusal, or an apology, and as such, operate in the interpersonal function, requiring the interaction of at least two interlocutors. For this reason, we understand this use of *complementary contrastive* constructions as an extended use of the previous *topic-avoiding* and *topic-changing* constructions that exploited the ideational function.

To begin with, the construction *Excuse me/I'm sorry but Y* is a highly idiomatic construction with a very wide active zone. Thus, this configuration may indicate two different meanings depending on the context in which it is inserted:

(i)   It may indicate reluctance or refusal when the speaker is thankful that the listener suggested X, but declines the offer because of Y, as in *That's very kind of you. But I'm terribly busy on Saturdays* (CCD).

(ii)   It may be used as an apology when Y introduces the reason why the speaker feels sorry as in *I'm sorry, but she's not in at the moment* (CCD).

This construction may be used to introduce a false apology that, for politeness reasons, the speaker is forced to express. This is the case of example (126) below, which is instead a *disagreement* construction. We can only know if this is the case by studying the contexts in which the sentences are uttered, that is to say, the meaning of this construction needs to be determined on the basis of contextual parameters:

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(126) Excuse me, **but** I think you're wrong there. (CCD)

The speaker in (126) is apparently apologizing to the hearer. However, it is a false apology since what the speaker does is express his reluctance or refusal to accept what the hearer has expressed or done. As consequence, with this construction, the speaker does the opposite of what he was expected to do.

We understand this construction as a *complementary contrastive* construction, because there exists a contrast between what the hearer expects to happen (the expression of an apology) and what takes place (the speaker rebukes the listener for what he has previously said or done).

In turn, the construction *X anyway Y*, previously discussed in relation to other meaning profiles, can also be used when the speaker is thankful that the hearer suggested X, but declines the offer by introducing new information for which the speaker declines X in Y. An example of this construction type is found in (127) below, where the speaker is thankful that the hearer suggested giving him a lift, but declines the offer because he would rather go on foot:

(127) I can give you a lift if you wait- no, I'll walk. Thanks, **anyway**. (CCD)

It is worth noticing that in most dictionaries, the connector *anyhow* is defined as being the same as *anyway*. This assumption is inaccurate, since these connectors are not always interchangeable, as can be seen by the inappropriateness of example (128) below created for the purpose of this explanation.

(128) *I can give you a lift if you wait- no, I'll walk. Thanks, **anyhow**.

The data in our corpus reveal that the construction *X anyway Y* shows a wider active zone than *X anyhow Y*. This is evident by just looking at the number of examples

retrieved after making a simple search in the COCA: while *anyhow* was found in 1.830 entries, anyway appeared in 32.266. Another interesting factor is that while *anyhow* can always be replaced by *anyway* in any context, the converse is not the case, as was evidenced examples (127) and (128) above. Examples (129) and (130) provide further evidence in this respect:

(129) No, I'll put them in this, why use up your carrier bags, **anyhow** this is an easier way to carry. (BYU-BNC)

(130) ?No, I'll put them in this, why use up your carrier bags **anyhow**.

Example (129) conveys reluctance or refusal because the speaker rejects the offer to use carrier bags. But unlike *anyway*, *anyhow* needs a reason for the rejection to be provided. In turn, example (130) suggests that by using *anyhow* the speaker could refer to a bad use of the hearer's carrier bags, not to the fact that he would not need to use them. In this context, *anyhow* would not have discursive value. If the same sentence contained the marker *anyway* instead of *anyhow*, then the case would be the opposite, as in *No, I'll put them in this, why use up your carrier bags anyway.* Therefore, it is not true that *anyhow* and *anyway* are identical in meaning, and it is also clear that usage-oriented lexicographical practice is still in need of serious refinement.

Finally, the construction *X all the same Y* adds an extra value or meaning to the sentence where it is inserted. According to the data in our corpus, this configuration can be used to reinforce either the speaker's disbelief or refusal for X, as in example (131) below, or a refusal linked to an apology, as in the following example (132), where the speaker refuses or declines to accept the hearer's offer, but feels as thankful as if he would have accepted it. The meaning derived from this construction is that in the hypothetical situation that X would be repeated, the given events would have led to the

same situation in Y (i.e. it would be impossible for the feather to have come from an imaginary swan in (131) and the speaker would have been equally grateful in (132)).

(131) **All the same**, the feather in his pocket could hardly have come from an imaginary swan. (BYU-BNC)

(132) Thanks **all the same**. (BYU-BNC)

5.7 Evaluative complementary contrastive constructions

In the investigation of *complementary contrastive* constructions, we have found peripheral uses of certain configurations that are also used to contrast two elements that are at the same time complementary. This is the case of the originally *comparative* constructions *X is more M than N*, *X would rather Y than Z,* and *Not so much X as Y.* These configurations profile a complementary contrastive meaning that results from metonymic extension (i.e. the application of a source-in-target metonymy) from their original comparative use to their complementary contrastive value. In this context, these constructions can also be used to evaluate one thing, person or situation as better, worse, or greater than another thing, person or situation on the basis of objective facts or subjective evaluation. The following lines analyze each of these constructions in detail.

To begin with, the configuration *X is more M than N* has been recently analyzed by Hilpert (2010) in comparison to other similar Swedish *comparative* constructions. According to this author, constructions of this kind are not comparative constructions *per se*, but meta-comparative configurations, since they are used to express not a gradation of qualities, but rather the fact that a certain quality is more appropriately

predicated of an entity than another (ibid, p. 35). For this reason, Hilpert states that the construction *More ADJ than ADJ,* as he calls it, cannot be used with the morphological comparative, as the following example illustrates:

(133) Harry is **more** sad **than** angry.

(134) *Harry is sadd**er than** angrier.

However, Hilpert (2010) does not make any connection between this construction and other similar configurations, and what is more, he defends that examples (133) and (135) are equivalent:

(135) Harry is sadd**er/more sad than** he is angry.

In the present proposal, we argue that, first, the expression *He is sadder more than he is angry* in (135) is not as common as Hilpert (2010) defends, and second, that in any case, examples (133) and (135) are not fully equivalent, since (135) makes a greater emphasis on the Y element of the configuration, enhancing the degree of contrast. This greater emphasis is the result of the larger physical distance existing between the elements compared in in (135). Many scholars within cognitive and functional linguistics (more prominently Haiman (1985) and Givón (1985)) have studied this syntax-semantics iconicity phenomenon. According to Givón, the proximity principle states that "entities that are closer together functionally/conceptually/cognitively will be placed closer together at the code level, i.e. temporally or spatially". Thus, following this proximity principle, Harry in (135) is sadder than in (133), since the existing contrast between these two concepts is greater in (135) than in (133), whereas in (133), these two emotional states are not so clearly distinguished.

All in all, in (133), the situation in the X part of the construction (i.e. that Harry is sad) does not completely reject or block the situation in Y, as in *Some living composers are more dead than alive.* In this example, the elements *dead* and *alive* contrast entirely, but at the same time complement each other, giving the hearer a unified perspective of the state of the 'living composers' in question. To allow a complementary contrastive use of such comparative constructions, the M and N elements must be adjectives that qualify X, and they must be used figuratively: the concepts of being *dead* and *alive* are opposed and exclude each other in the real world when referred to them literally, but both states of affairs can hold and be complementary at the figurative level. This strategy allows speakers to talk implicitly about probability (i.e. it is more probable that the living composers are dead than that they are alive).

Another case in point is the construction *X would rather Y (than Z)*. In this construction the X, Y and Z elements represent propositional or nominal arguments. Depending on the context, this construction could be used with simply contrastive or complementary alternation meaning values. When this construction adopts its complementary contrastive meaning, it conveys speaker's preference; the Y element refers to what the subject of the proposition, which is expressed in the X element of the construction, prefers to Z, the element compared to Y. In the contexts where Y is feasible, from the point of view of world knowledge, using this configuration the speaker does not reject the existence of Z entirely, as Z would also satisfy the subject, but to a lesser extent (i.e. the Z element is perceived as being more negative than Y or as not being as positive as Y). By contrast, when Y is not acceptable under any circumstances, using this construction the speaker emphasizes the fact that he would never do or accept Z, as Z implies a less preferable scenario than Y. In example (136) below, the speaker knows that most kids prefer playing with other kids, but he is aware

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that in the absence of other kids, most kids would continue playing and be satisfied with their play, since playing is an inherent feature kids. By contrast, in example (137), the speaker declares that he would never accept living under the oppression of others, as he is ready to die for his rights.

(136) Most kids **would rather** play together than alone. (Google[20])

(137) I **would rather** die on my feet than live on my knees. (COCA, 2015)

It is worth noticing that this configuration appears to admit the elimination of the final comparative element of the construction (i.e. *than Z*), resulting in an apparently absolute expression. But this is not the case, since Y is compared implicitly with any other possibly existing option. Consider the following example extracted from WebCorp:

(138) By this I mean that I **would rather** not say that I don't deserve it. (Google[21])

In example (138), the Y element (i.e. *not say that I don't deserve it*) is implicitly compared with another proposition, i.e. *I say I don't deserve it.* This second comparative proposition is presupposed, and therefore, omitted because when somebody says one thing, it is impossible to say the opposite at the same time. In this construction, therefore, Y and Z need to be two opposing elements at the two ends of the contrast continuum, where Y is preferred, but Z is not completely denied.

Finally, according to the CDO, saying that something is not *so much* one thing *as* something else, means that the latter condition holds firmer. This definition though, is too simple and incomplete. In the present proposal, this idiom is part of the construction *Not so much X as Y*, which is used to introduce the first part of a contrast between two

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[20] http://childrensadvocate.org/articles/early-learning/siblings/ last accessed 9/05/2016, 12:15.
[21] http://unesdoc.unesco.org/images/0011/001169/116928E.pdf. last accessed 9/05/2016, 16:23.

elements when it is meant that something is not as true, great, appropriate, etc. as something mentioned afterwards, as in *T*hey're not so much lovers as friends. This construction, therefore, also belongs to the *complementary contrastive* constructional family. In this example the couple in question are both lovers and friends, but the configuration contrasts directly the idea of being friends with the idea of being lovers, as if both things were not complementary. Another example of this construction is found in (139) below:

(139) It was **not so much** an argument **as** a monologue. (Google[22])

In this case, the speaker places the word *argument*, for which at least two people are necessary, in direct opposition to the word *monologue,* which can be performed individually. Using this construction, these two apparently opposite states of affairs complement each other, since the speaker implies that the argument in question had more characteristics of a monologue than of an argument, these two not being completely opposite values. Thus, the hearer imagines a situation where two people are having an argument in which only one of the participants speaks.

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[22]http://slideplayer.com/slide/7336444/ last accessed 9/05/2016, 13:02.

6

Contrast constructions

Contrast is defined as the act of distinguishing or of being distinguished by comparison of unlike or opposite qualities. This phenomenon is essential for human cognition, since human beings have a natural tendency to dichotomize (Kelso, 2008; Linquist et al., 2011). We should bear in mind that the human body is bilateral: it has two eyes, two hands, two feet, a front and back, a left and right, etc. Basic dichotomies also exist in nature, such as night and day, dead and alive, male and female, dry and wet, etc. As such, contrast is present in all aspects of human life and it is, therefore, natural to project it into language.

There is a large amount of research on language forms that allows speakers to contrast two designated states of affairs at discourse level. Our own intuition suggests that a host of contrastive words could be used with discursive value, such as *incompatible with, in conflict with, correcting* or *opposite to.* These words, however, are

not discourse connectors as such, since they do not combine propositions. Instead, they have a prepositional value, and therefore are out of the scope of the present study.

In turn, there are almost no studies that treat contrast from a constructionist perspective. The very few that do so, concentrate only on constructions where one element is asserted and another one is negated, such as the *Not X but Y* construction. A case in point is the investigation carried out by Silvennoinen (2013) for the *X not Y* construction and other forms of contrastive negation. This author studies other variants of the *X not Y* construction, such as *X but not Y* or *Not X but Y* among others. Unfortunately, Silvennoinen (2013) does not address the semantic dimension of each of the constructions in question, nor the reasons why speakers choose a specific construction in a given context. Moreover, he neglects to place these constructions in relation to other contrastive constructions that do not necessarily negate one of the elements explicitly such as the *X contrasting Y* construction.

In the present proposal, we believe that comparison is the key factor of a group of constructions that form a constructional family, whose meaning base is an opposing relation between two or more states of affairs, entities, or attributes of entities in the world (or in a possible world). Both clauses (or discourse segments) refer to related situations or themes, yet they imply a contradiction. The constructions identified with a contrastive meaning base can be seen in *Table 8* below.

(Either/whether) X or Y	*Clashing with X, Y*	*Opposite to X, Y*
No X other than Y	*Disagreeing with X, Y*	*X against Y*
There's no X like Y	*Opposing X, Y*	*X as against Y*
X alternatively Y	*X not Y*	*X besides Y*
X as opposed to Y	*X and Y*	*X conversely Y*
X but Y	*X at odds with Y*	*X however Y*
X contrary to Y	*X contradicting Y*	*X inconsistent with Y*
X counter to Y	*X contrasting Y*	*X per contra Y*
X in opposition to Y	*X different/distinct from Y*	*X whereas Y*
X on/to the contrary Y	*X in/by contrast to Y*	*Not so much X as Y*
X unlike Y	*X or Y*	*X is not Y but Z*
X while/whilst Y	*X versus Y*	*X yet Y*

Table 8. Contrast discourse constructions

Nevertheless, each of these constructions introduces subtle differences in meaning that allow speakers to profile the same contrastive meaning base differently, even though many of the markers in such constructions are generally treated as fully equivalent by lexicographers. This explains why competent native speakers unconsciously choose a specific configuration from the above listed constructions for specific contexts to the detriment of the rest. After a careful analysis of many examples of real language use of the constructions under scrutiny, this investigation proves that contrastive constructions are used to profile four meaning dimensions, thereby allowing us to classify them according to the four constructional meaning profiles described in the following *Table 9.*

CONSTRUCTIONAL PROFILES	DESCRIPTION	IDENTIFIED CONSTRUCTIONS			EXAMPLES
Contraposition constructions	They express at least a relevant opposition between two states of affairs or attributes of entities due to the differences that hold between them. This opposition may result in one of the states of affairs being preferred to the other.	Clashing with X, Y Contrasting X, Y Not so much X as Y Opposing X, Y Opposite to X, Y X and Y X as against Y X as opposed to Y	X but Y X conversely X different from Y X distinct from Y X however Y X in opposition to Y X in/by contrast	X not Y X per contra Y X unlike Y X versus Y X whereas Y X while/whilst Y X yet Y	- **Unlike** Dalton, Mendel was not appreciated until after his death.
Exception constructions	They express an exception to the characteristics of another state of affairs.	X but Y X besides Y	No X other than Y There's no X like Y		- I wasn't guilty of doing anything **besides** not telling on her.
Alternative-contrastive constructions	They bring to the fore alternatives that contrast with each other	(Either/whether) X or Y X alternatively Y	X and Y X but Y	X or Y	- It doesn't matter whether you win **or** lose.
Disagreement constructions	They express disagreement or a different opinion that may result in the correction of a previous statement or conventional assumption with arguably new, real and verifiable facts.	X on/to the contrary Y Disagreeing with X, Y X contradicting Y X against Y	X in opposition to Y Opposing X, Y X inconsistent with Y X but Y	X counter to Y X at odds with Y X is not Y but Z X as opposed to Y X contrary to Y	- **Contradicting** conventional wisdom, adult human brain and heart cells can divide.

Table 9. Classification of contrast constructions

The following sections offer a brief description of each of the subgroups of constructions that constitute the contrast family of constructions together with a detailed analysis of its configurations.

6.1 Contraposition constructions

Contraposition constructions comprise the following configurations: *Clashing with X, Y; Contrasting X, Y; Not so much X as Y; Opposite to X, Y; X and Y; X as against Y; X as opposed to Y; X conversely Y; X different from Y; X distinct from Y; X however Y; X in/by contrast Y; X not Y; X per contra Y; X unlike Y; X versus Y; X whereas Y; X while/whilst Y;* and *X yet Y.*

The constructions in this constructional profile are used to express at least one relevant opposition between two states of affairs or attributes of entities that are being compared (either holistically, in a global approach to the distinction, or listing features of the elements in question creating a detailed contraposition) due to the existing differences between them. This difference can be argumentative as evidenced by example (1), or perceptually detectable as in (2):

(1) Losing at games doesn't seem to matter to some women. Most men, **however**, can't stand it at any price. (CCD)

(2) Everybody was shouting in panic. **Yet** louder shouts rose when the police car arrived.

In examples like (1) where the existing difference is argumentative, one of the states of affairs represented in the construction is preferred to the other, whereas in examples like (2) the contrast is generated by up or downscaling a gradable concept.

The following lines discuss in depth when each *contraposition* construction is used with preference to the others, depending on the meaning zone it activates.

To begin with, from a diachronic perspective, the construction *Clashing with X, Y* is based on an ICM consisting of the following elements: first, the word *clashing* refers to the onomatopoeic sound of two objects (proposition X and proposition Y) that come from opposite directions to a point of collision. Such an onomatopoeia is based on the echoing operation between the ideal sound that the two elements would produce upon collision and the interpretation that speakers make of that sound. In turn, the same word *clashing* is based on the metonymy SOUND FOR ACTION that allows us to interpret the resulting sound as the action that produces it (see *Figure 6* below). This metonymy is necessarily combined with the high-level metaphor IDEAS ARE OBJECTS that allows us to interpret two ideas as if they were two objects that collide. The application of this construction results in the pragmatic inference that when two ideas clash, only one of the ideas can hold.
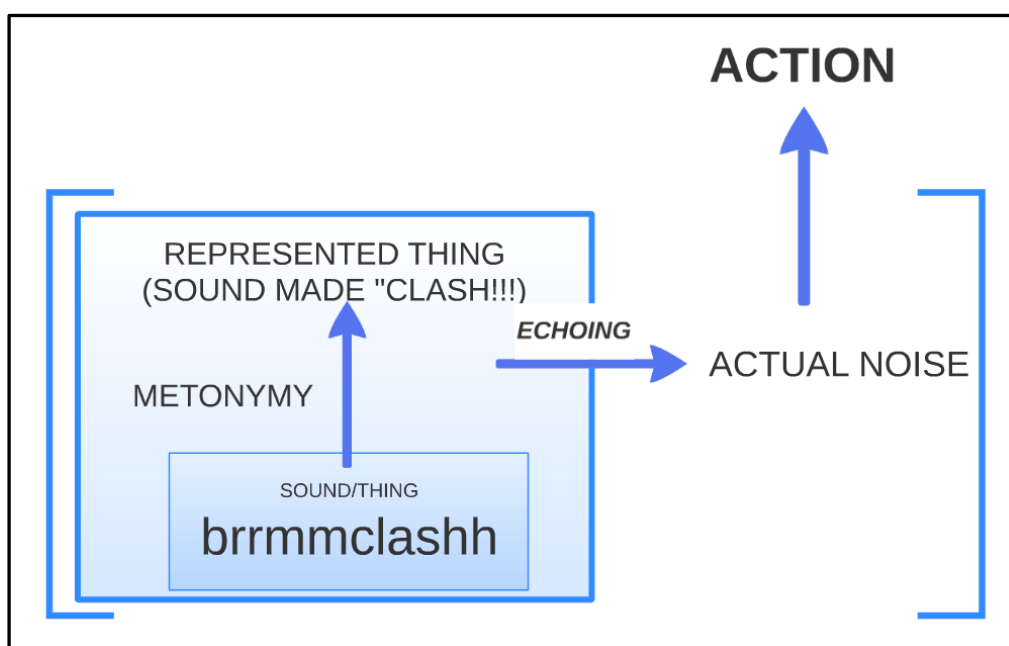
Figure 6. SOUND FOR ACTION *high-level metonymy*

However, from a synchronic perspective, when speakers decide to use the *Clashing with X, Y* configuration, they are not aware of its onomatopoeic origin any more. Instead, the real value of the construction is based on an obstacle schema in which two equally strong opposing forces (a force and a counterforce) crash into each other. The imaginary collision results in the end of the motion and because the two have the same strength upon impact, neither force wins over the other. Applying the high-level metonymy RESULT FOR ACTION, speakers have access to the whole confrontation scenario: The action that has produced that result. Therefore, this construction is preferably used when there is a full confrontation or opposition between the X and Y elements in order to highlight their different origin. Finally, in this construction, the metaphors IDEAS ARE OBJECTS and GOALS ARE DESTINATIONS allow for the correct interpretation of the expressions containing this construction. These metaphors help to understand two conflicting ideas as two opposite physical objects that collide, and peoples' objectives in life as destinations at the end of different paths (see *Figure 7* below).
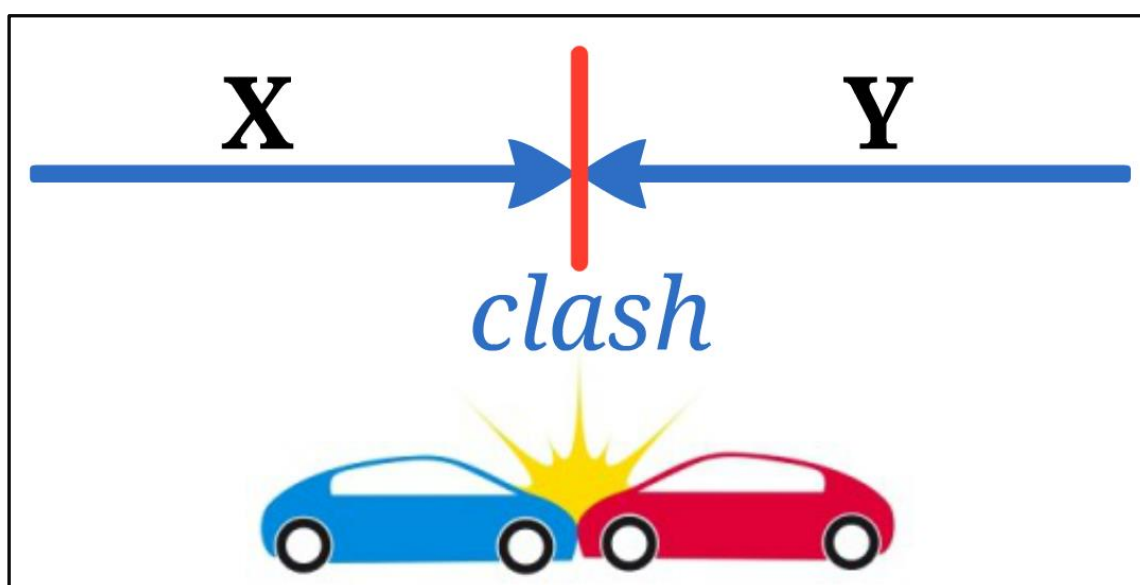
Figure 7. Metaphor behind the Clashing with X, Y *construction*

Consider the following example (3) in relation to the explanation given:

(3) **Clashing** with her employer, a polygamous despot, Anna represents the civilized, all-knowing West offering reason and humanity to the barbarous East. (COCA, 1993)

In (3), the civilized Anna contrasts with her employer, the oriental despot. Both characters' personalities are highly differentiated, opposing each other. In this example, the imaginary collision implied by the *clashing with* connector is not physical but intellectual. This connector could be replaced by other expressions such as *distinct from*, *as opposed to*, or *unlike,* but with different meaning implications: while the connector *clashing with* is based on force dynamics, this is not the situation of *distinct from, as opposed to* and *unlike*. They are based on totally different image schemas in origin, which gives rise to different active zones and, therefore, different shades of meaning. Nevertheless, these semantic differences are very subtle, and thus, the constructions allow for some interchangeability among them.

The same explanation applies to example (4), extracted from the COCA. Here, the interests of American isolationists directly oppose the interests of those that believe that America should continue having political and economic relations with European nations. The extremely conflicting nature of the two ideas is conveyed by the metaphorical image of two opposing points of view seen as if "impacting" against each other:

(4) With "victory" in that conflict and the collapse of communism, isolationist impulses have surfaced again in America, insisting that our political responsibilities, like charity, begin (and end) at home: that is to say, America's proper concerns are not European but remain uniquely "American", focused

on this continent. **Clashing** with that view, the imperatives and consciousness of American power continue to bind us to the community of European nations. (COCA, 1996)

In *Contrasting (with) X, Y* the focus is on the comparison of the attributes of X and Y or on the states of affairs they designate. The construction is based on objective, verifiable facts and underlines how or why X and Y are different. Variants of this construction include *X contrasting Y* and *X in contrast to Y*. Example (5) brings out the specific characteristics that make the earlier "pier" different from the new "pier". These characteristics, that make the second much better than the first, are observable and verifiable, and thus, the comparison is based on objective facts.

(5) **Contrasting with** the earlier workaday pier with its tramway and lack of railings, the new pier, opened in 1896, had a proper landing-stage, promenade […]. (BYU-BNC)

A similar explanation applies to example (6), but this time the high-level metaphor IDEAS ARE OBJECTS allows us to understand two distinct approaches or opinions as if they were two physical objects, facing each other. They are presented as similar in many aspects, but also differing in relevant ways that allow them to be compared:

(6) There are however, two distinct approaches regarding the role of the teacher and student in this process. On one hand, there are those who believe the focus is best centered on the teacher who designs structured educational events for students whose role is to be passive recipients of knowledge (reception method). **Contrasting with** this approach is an approach in which students are active learners, engaging with content in their own unique and individual way. (COCA, 2012)

The constructions *Opposite to X, Y, Opposing X, Y,* and *X opposite to Y,* which have a very strong underlying discourse value, are all built around the idea of placing an object or idea in front of another with the purpose of comparing them according to their differences or similarities. The constructions *Opposite to X, Y* and *Opposing X, Y* imply a stronger contrast than *X in opposition to Y*, because these constructions convey the implicit idea that something is the case, and that this something opposes for some reason or some purpose something that is not the case, thus making the propositions X and Y mutually exclusive. The difference between these two constructions is that *Opposing X, Y* adopts the formal aspect of a prepositional phrase.

In turn, the construction *X in opposition to Y* profiles a very neutral contrast, because contrary to its previous homologous configurations, this construction does not contain any implicit purpose or cause in its semantic configuration. It simply suggests that X is in the opposite position compared to Y (i.e. *to* indicates a physical metaphorical opposition). Consider the following example:

(7) **Opposite to** our predictions, parental rewards and role modelling significantly decreased outcome certainty. (COCA, 1993)

The construction *X as against Y* also makes an explicit comparison between the X and Y elements, asserting that X and Y differ in a relevant way. This construction is restricted in the sense that the connector *as against* must be followed by a noun phrase. Another relevant constraint that this construction places in the contexts where it is inserted is that when what is contained before the connector is regarded as negative, what follows must contain opposing and positive circumstances and vice versa, as illustrated in (8) and (9):

(8) Truancy in school, misbehavior at home, (…) became products of the civilisation, **as against** the cherished marital values of Nigerians. (COCA, 2011)

(9) American power laundries forged an image of good sanitation in their laundering process, **as against** the poor sanitation in the Chinese laundries. (COCA, 2002)

In (8), the speaker compares the Nigerian traditional family values with the new values that civilization and modern life brought to Nigeria. According to this speaker, truancy and misbehavior are the results or products of civilization. These negative characteristics directly contrast with the positive and cherished Nigerian marital values after the connector *as against.* By contrast, in (9), the construction starts by mentioning the good American sanitation in the laundering process first, to later introduce the poor sanitation in the Chinese laundries.

In short, this configuration serves the only purpose of demonstrating that one of the elements is evaluated as better, greater or more appropriate than the other. Unlike *X opposite to Y*, in this construction the speaker's subjective opinion or evaluation is generally inherent. This is so even in cases where subjective assessments might appear to be neutralized by an objective description. Take example (10):

(10) Each of the 10 counties has no more than four people per square mile, poverty rates of at least 20 percent and new construction of less than $50 per capita, **as against** the national average of $850 per capita, according to the study by Frank Popper. (COCA, 1990)

The values the speaker presents in (10) are purely objective, since they are based on a quantitative study and simply concentrate on the comparison between

figures. However, in this example, the axiological configuration of *X as against Y*, where one of the variables is more positive than the other, is consistent with the implication that the extremely low per capita figure is completely unacceptable.

Let us now examine *X as opposed to Y,* which is also used to contrast two different elements or ideas. The meaning of this construction is grounded in the meaning of the term *oppose*, which literally refers to placing an object facing another. This construction therefore requires to metaphorically posit two similar objects or ideas facing each other in the speaker's mind (i.e. IDEAS ARE OBJECTS), concentrating on what makes them different from each other and highlighting those differences instead of their similarities, if they exist. In origin, the differences between the X and Y elements that the construction *X as opposed to Y* captures might have been small, but the speaker's objective at using this configuration is to present them as if they were crucial, as in *Please shake my martini as opposed to stirring it*. Therefore, as is the case of the *X as against Y* construction, this configuration is also subjective, largely dependent on the speaker's perspective. In the comparison between the two elements, the speaker only highlights one characteristic feature, which is perceived as the crucial element that distinguishes X from Y, as evidenced by the *Martini* example*.* The examples (11) and (12) further illustrate this feature:

(11) **As opposed to** the set 12 month scheme, management courses of nine or even six months are perfectly possible. (BYU-BNC)

(12) Some trades were better than others, "honourable" **as opposed to** "dishonourable", and within some trades there were differences between a quality and a poorer end. (BYU-BNC)

In (11), the speaker compares different management courses and concentrates in a characteristic feature that makes them different (i.e. their duration) which allows courses of nine or six months to be possible while courses of 12 months are apparently unfeasible. In the same vain, the only feature that distinguished some trades from others in (12) was their degree of honorability.

The constructions *X as opposed to Y* and *X as against Y* are interchangeable, since both imply a degree of aggressiveness between the two elements involved in the comparison. However, the meaning these constructions encode is not the same: The term *against* implies physical contact (based on its original metaphorical sense of a clash between both elements), which makes the contrast sharper than in the construction with *as opposed to*, where the elements simply oppose each other. Moreover, in *X as opposed to Y,* there is metaphorical distance between the X and Y elements that are facing each other, and there is no clash between them. This difference in meaning is exemplified by comparing (13) and (14), where the contrast expressed in the latter is sharper than in the former:

(13) We should be stopping terrorists from operating, **as opposed to** chasing them after they've attacked. (Google[23])

(14) We should be stopping terrorists from operating, **as against** chasing them after they've attacked (altered example).

So far, this section has described how speakers can signal an existing contrast between two elements in the world holistically, as in the construction *Clashing with X, Y,* or partially, focusing on a concrete characteristic of the elements compared, as in *X*

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[23]https://books.google.es/books?isbn=052153271X last accessed 25/04/2017, 21:08.

as opposed to Y. But depending on the construction selected, speakers can also compare two given elements symmetrically.

For example, the construction *X conversely Y* is used to introduce a statement about a situation that is the reverse of another situation that has just been described. In the given situation, X and Y are perceived as mirror images or situations that contrast, and the analogy A is to B as B is to C is not given, as in *He would have preferred his wife not to work. Conversely, he was also proud of what she did.* In this construction, X and Y generally hold a part-whole relationship, i.e. both elements can be different parts of a whole, or one of the elements can be a part of the other, as example (15) illustrates:

(15) You can use beer yeast for your bread making**. Conversely**, you can't use bread yeast in your beer. (CCD)

In (15), beer yeast is a necessary ingredient to make beer, so beer and beer yeast hold a part-whole relationship. In turn, beer yeast and bread yeast are both different types of yeast, but the humor in the sentence arises from the fact that not all yeasts can be used to make beer, no matter how similar they are.

Example (16) is not based on part-whole relationships between X and Y, but the contrast is also produced, this time in terms of symmetry:

(16) You feel maybe a little more familiar with them if you like them. **Conversely**, I don't like doing impersonations of people I don't like. (COCA, 2012)

The good feelings the actor experiences when he does impersonations of people he likes in (16) contrast not with any bad feelings he experiences doing impersonations of people he does not like, but with the fact that he simply does not like doing such impersonations.

In turn, when *X conversely Y* is used to express other possibilities with the condition that if one of the possibilities takes place the others are excluded; the contrast is created holistically, not in terms of symmetry. When *X conversely Y* is used this way, its meaning is comparable to *X in contrast Y* and other similar constructions, and the configuration can be combined with more connectors in the construction to reinforce the contrast, as in *but conversely, or conversely,* or *yet conversely*. Consider the following examples in this respect:

(17) If the cost exceeds the budget, the hospital will pay**, but conversely**, if the actual cost is cheaper, the hospital profits. (BYU-BNC)

In this example, the situation described in X (i.e. the hospital must pay) is exactly the opposite of the situation described in Y (i.e. not only the hospital does not have to pay, but it profits). Both situations are compared, as a whole, without concentrating on any particular aspects that make X different from Y. Simply, one situation is the reverse of the other situation. This example follows the following reasoning schema: "If A then B, so if not A, not B". Similarly, in (18) below, the producers' income will be guaranteed, no matter how much or they produce or how good it is. However, the construction presents the contrast between the two possible and opposing scenarios that this situation may generate, i.e. either the producers may care for their production and therefore be discouraged, or they may not care.

(18) They may either be discouraged from having to care about the quantity or quality of what they produce, as their income will be guaranteed regardless **or, conversely,** they may be less concerned about the quality of the inputs they use. (BYU-BNC)

As for *X different from Y,* the contrast arises from listing, making explicit, and emphasizing the distinctive internal features that distinguish X from Y. This construction is distinguished from other constructions like *X as opposed to Y* in that its meaning is literally encoded, not based on any metaphor. This fact makes the contrast created between the X and Y elements softer than in other constructions within the same profile. For example, the constructions *X as opposed to Y* or *X as against Y* contrast the X and Y elements holistically and contain originally metaphorical (now heavily conventionalized) connectors that convey the idea of two elements being opposite to each other, incompatible due to the opposite places they occupy in space. In contrast to this construction, *X different from Y* does not necessarily confront the contrasted elements and there is no metaphorical frontal collision between them, which makes the contrast softer. In any case, this construction can always be replaced by *X as opposed to Y* (although not by *as against*), but not vice versa, as the following example illustrates:

(19) Please shake my martini **as opposed to** (cf. *different from) stirring it. (WR)

(20) He was nice. **Different from** (cf. as opposed to) Doctor Rice. (BYU-BNC)

Example (19) takes the construction *X as opposed to Y* and rejects the use of *X different from Y*, precisely because the speaker regards X and Y as completely different elements, even though they are simply two ways of making a Martini. The speaker reinforces the idea that making the Martini with a different technique completely alters the essence of the desired drink, thus rendering X and Y opposite. By contrast, example (20) admits the use of either construction, but the meaning of the sentence varies depending on the construction selected; *He was nice.* **As opposed to** *Doctor Rice* implies that the speaker wants to make explicit that for him Doctor Rice was not

nice at all. By contrast, in *He was nice. **Different from** Doctor Rice* the speaker does not openly admit his dislike towards Doctor Rice, and simply states that *He* was different, neither positively nor negatively, saving his face in case that his interlocutor did like Doctor Rice (although the implication is that he did not like Doctor Rice at all).

It should be noted that in this configuration the element introduced by the marker is not necessarily regarded as more negative, so it will be necessary to parametrize in context the speaker's positive or negative stance towards the Y element, if there is any, since this construction can also be used just to point to the differences between the elements without necessarily expressing a judgment on either X or Y.

Another distinguishing feature of *X different from Y* is that in other similar constructions, the comparison alludes both to the similarities and differences, while this construction only concentrates on the existing differences between X and Y, as in (21):

(21) Distributed trial training has often been utilized to increase skill acquisition for students with moderate/severe developmental disabilities. **Different from** massed trial training, distributed trial training can occur throughout a school day or lesson. (COCA, 2012)

In this example "distributed trial training" is assumed to be practically the same as "massed trial training", differing only in the fact that the first can be taken during a school day or lesson. Both types of training do not oppose one another; they are simply different in this respect, which allows speakers to contrast them. A similar explanation applies to (22) below. Here, the jump chutes are very similar, only differing in that the "base" jump chutes contain a small primer release chute for low altitudes that others do not have:

(22) He pulled out two small backpacks: Base jump chutes. **Different from** the

chute he'd just worn, these were designed with a small primer release chute

that would be deployed by hand from a low altitude. (COCA, 2010)

Finally, there is obviously a grammatical constraint on the Y part of the

construction, since *different from* has to be followed by a noun (or a pronoun).

With respect to *X distinct from Y,* this configuration presents a lexical, not a

propositional contrast, based on the observable and recognizable features that make

X and Y different or that separate Y from X. This construction has the possibility of

activating two different meaning dimensions. When the first is activated, the X and Y

elements are regarded as different, as evidenced by (23) below:

(23) We would argue then, that knowledge workers, **distinct from most**

managers, do make significant use of external publicly available information

sources. (BYU-BNC)

In (23), knowledge workers use external information sources while most

managers do not. This feature allows the speaker to distinguish between both groups

of people in a generic way, as this fact is regarded as the most salient property that

distinguishes knowledge workers from managers. A parallel explanation applies to (24)

below, where the feature that distinguishes ethnography from oral history is that the

latter is, according to this speaker, the only research practice between the two that is

useful for reconstructing past ecologies.

(24) **Distinct from** ethnography, oral history as a research practice is a useful

method for reconstructing past ecologies. (COCA, 2011)

When the second meaning zone is activated, Y is separated from X, both

elements being the same or highly related in origin. This fact is observable in examples

(25) to (27) below. In (25), *man* is separated from the rest of the animals, even though it is also the result of the evolution of previous animals. In (26), spirituality is detached from religion, even though spirituality is commonly accepted as part of religion. Finally, in (27), the concepts of *hell* and *underworld* are differentiated, because according to the Bible and in most cultures, hell refers to a place under the earth (e.g. *Yet thou shalt be brought down to hell, to the sides of the pit* (Isaiah 14:15 KJV). The speaker is aware of this shared knowledge, and by distinguishing the underworld from hell, he explains that according to the Inca mythology the underworld and hell are two different concepts.

> (25) Christianity also teaches that man is a special creation, related but **distinct from** the animals, made in God's image and likeness. (BYU-BNC)

> (26) **Distinct from** moral or religious beliefs, spirituality engages interactively with the psyche, body, and sociocultural setting to influence human functioning. (COCA, 2009)

> (27) **Distinct from** hell is the underworld (*Ucupacha*). The entrance to it is in the side of Tungurahua volcano. (COCA, 1994)

In practice, this construction could be replaced by other constructions such as *X unlike Y* or *X as opposed to Y* without apparent differences in meaning. But semantically, these three constructions are based on different image schemas. First, the construction *X unlike Y* contrasts the X and Y elements taking each as a whole, by means of a global comparison that reveals a full differentiation. Second, the connector *different from* does not make such a global contrast, but captures the internal features of X that are not present in Y. And third, the connector *distinct from* works by

contrasting all the distinct features in the conjuncts that clash globally, as *Figure 8* illustrates.
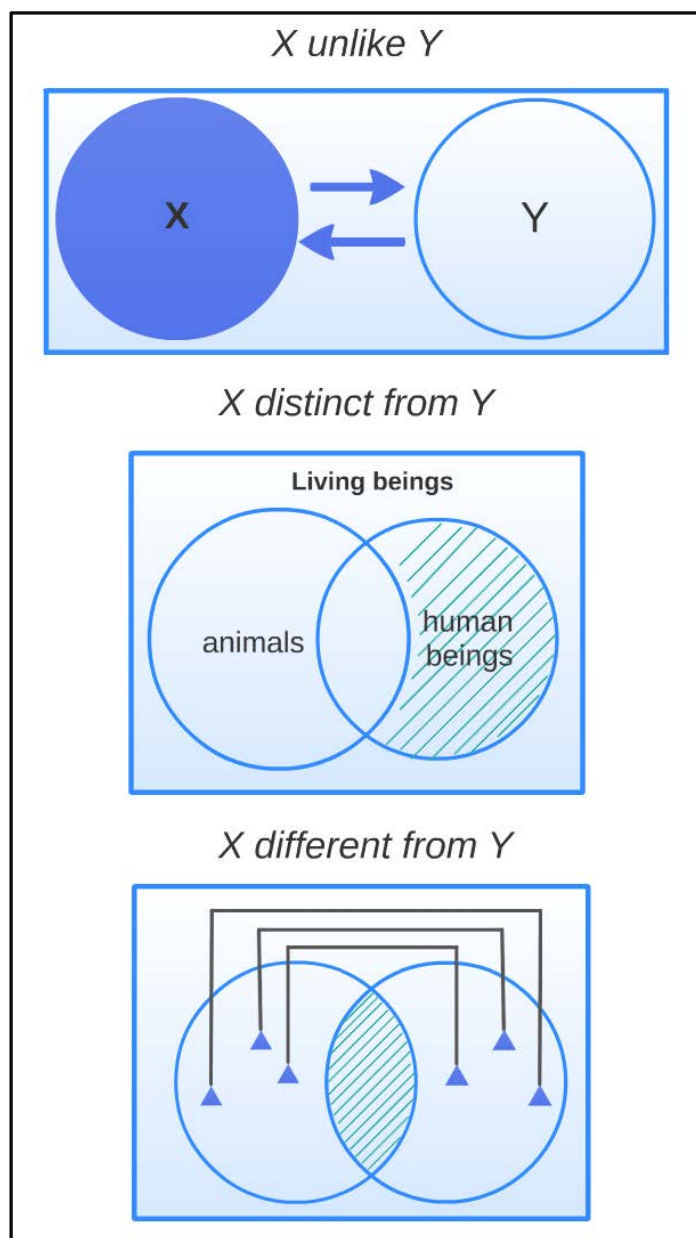
Figure 8. Image schema behind the constructions X unlike Y, X distinct from Y *and* X different from Y

Furthermore, *X distinct from Y* and *X different from Y* suggest not physical but intellectual separation or detachment, as if distinct elements were easily detachable from the whole to which they belong. This meaning implication is achieved using the preposition *from* combined with the application of the correlational metaphor SIMILARITY IS CLOSENESS. Finally, the main semantic difference between the connectors *distinct*

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from and *unlike* is a presuppositional distinction. When the speaker uses the connector *distinct from,* he presupposes that the hearer knows that X and Y are different, whereas in *unlike*, the speaker presupposes that the hearer did not think that there was any difference between X and Y.

Regarding *X however Y,* the speaker accepts the circumstances in X to be true, but the focus is directed to the contrast that arises between the X and Y elements of the construction. Through this contrast, the second element of the construction is highlighted, thus becoming more prominent than the first. In some cases, the Y element contradicts in a way what has been said in X, resulting in the surprise of the speaker, as evidenced by (28):

(28) Today the Vatican rightly claims to be the country with the world's lowest birthrate; since most of its permanent residents are Roman Catholic clergy and nuns, the chances of a baby appearing in their midst are slim by anyone's reckoning. **However**, in the distant history of the Papacy this wasn't always the case. (BYU-BNC)

In (28), the speaker surprises the hearer with the scandalous revelation that in the past, the appearance of newborns in the Vatican was more common than what it should have been, taking into account that most of its inhabitants were members of the Roman Catholic clergy. The connector *however* is crucial to introduce this second part of the argumentation, and to create the surprise that arises from the contrast between the state of affairs that is expected and the actual state of affairs.

On other occasions, the purpose of the speaker is not necessarily to surprise the hearer, but simply to make evident an existing contrast between two different states of affairs. In (29) for example, the speaker points to a characteristic feature of women's

and men's behavior that distinguishes them from each other, namely that men are, according to this speaker, more competitive than women. Similarly, in (30) the connector *however* sets up a contrast between an inference arising from the first sentence (i.e. the previous lack of adequate screening of blood donations), and the assurance that all donated blood is checked now. This is a clear example of a contrastive relationship, but in this case, the contrast involves an inference rather than what is explicitly communicated.

(29) Losing at games doesn't seem to matter to some women. Most men, **however,** can't stand it at any price. (CCD)

(30) A small number of people in the UK have been infected with HIV from blood transfusions. **However**, all donated blood is now tested and any blood showing traces of HIV is discarded. (BYU-BNC)

In turn, the construction *X in/by contrast Y* literally contrasts one element with another. The analysis of the data in our corpus[24] reveals that the connector *in contrast* is much more frequent than *by contrast*. As can be seen from (31) and (32), which include the connector *by contrast,* both forms can be used indistinctly.

(31) The result is an uncertain future for California's female offenders, about half of whom are incarcerated for property, drug and other nonviolent crimes. **By contrast/In contrast,** just 28 percent of male offenders are serving time in prison for those same types of crimes, according to state officials. (COCA, 2012)

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[24]In the BNC, *in contrast* retrieves 2236 results whereas *by contrast* retrieves 1432. In the COCA, we find 10410 examples that contain the connector *in contrast*, while only 5268 are found for *by contrast*.

(32) While two-thirds of both male and female Millennials in Pew's research wanted a successful career, women in this generation were actually more likely than men to cite that as one of their most important values. **By contrast/In contrast,** among older Americans, men place greater importance on career and financial success. (COCA, 2012)

As could be seen from (30) and (31), this configuration reflects on the comparison of two generally objective states of affairs, without necessarily making any judgments. As in *X however Y*, in this configuration the speaker also believes the circumstances in X to be true, so both constructions are very similar in meaning, which allows the connector *in contrast* to be replaced by *however* in most cases. But the contrast between the X and Y elements becomes more salient when speakers use the configuration *X by contrast Y,* as it implies that the discrepancy between the situations described in X and Y is clearer or has clearer boundaries than in *X however Y*; the configuration *X in/by contr*ast Y works within the sphere of alleged objectivity (we acknowledge, of course, that no speaker can be purely objective, but any speaker can presume that they are being objective), whereas *however* is more subjective or dependent on the speaker's subjective understanding of the circumstances. This ties in with the more flexible character of the connector *however*, which, given the right textual and contextual conditions, shades off into the concessive sphere as previously explained in the previous chapter 5 of this dissertation (i.e. one where what is asserted in the X part of the construction is not denied in total, but only some of its meaning implications). By contrast, *X in/by contrast Y* cannot be used in concessive contexts, which makes virtually impossible to replace *by contrast* for *although* as can be seen from (33) and (34):

(33) Within the BBC, music is confined to three national networks, Radios 1, 2 and 3, with a limited amount being featured on Radio 5. **In contrast/*Although**, local radio is a mix of commercial and BBC stations. (BYU-BNC)

(34) It [complementary medicine] acts at both psychological and physical levels, and involves active efforts on the part of patients. **In contrast/*Although,** conventional medicine has tended to emphasise the treatment of specific physical lesions, by means of drugs and surgery, with a minimum of conscious involvement on the part of patients. (BYU-BNC)

As for *X not Y,* the configuration presents both an asserted (X) and a negated element (Y) together, where the particle *not* reinforces the existing contrast between the X and Y elements. This configuration conveys the idea that if X holds, then Y does not hold. An early description of this construction is contained in Gates and Seright (1967, p. 136), who indicate that this configuration presents different "transformations", as evidenced by the examples (35) to (37):

(35) This book, **not** those.

(36) This book, **but not** those.

(37) **Not** those books, **but** this one.

Unfortunately, these authors study this construction in isolation, and do not relate it to other semantically similar constructions. In the same vein, Huddleston and Pullum (2002) study this construction in relation to similar sister constructions and contend that there are subtle differences between *X not Y* and *X but not Y*. These authors argue that in *X but not Y*, it is expected that both X and Y could hold or be compatible in principle, but in fact this is not the case. In *X not Y*, X and Y are conceived as mutually

exclusive alternatives. Therefore, according to Huddleston and Pullum (2002, p. 1313), example (38) is correct while (39) is anomalous:

(38) They died in 1984, **not** 1983.

(39) *They died in 1984 **but not** 1983.

However, the analysis of the data in our corpus reveals that this affirmation is not completely right. In this dissertation, we contend that the construction *X but not Y* is also felicitous, as in *He is uninfected but not unaffected* or in *Spiritual but not religious,* although with a different meaning value; the construction *X but not Y* profiles a complementary contrastive meaning relation as explained in chapter 5 of the present dissertation, while *X not Y* is simply contrastive. Huddleston & Pullum (2002) also fail to include in their account the construction *X, but not Y*. The analysis of the data in our corpus reveals that, through iconicity (cf. Givón, 1991, 1995), the comma between both ideas allows for the creation of a greater conceptual distance between X and Y, thus enhancing contrast, as in *Shaken, but not stirred*. The distance thus created allows for the transformation of a *complementary contrastive* construction into a purely *contrastive* construction. Consider the difference between these examples, constructed for explanation:

(40) He is spiritual, **not** religious.

(41) He is spiritual, **but not** religious.

In (40), the subject in question is not religious but is indeed spiritual, whereas in (41), there is an expectation that the person in question will be religious, as the speaker assumes that when a person is spiritual this person is also religious.

In any case, the analysis of the data in our corpus reveals that the construction *X not Y* can be used with three different purposes:

(i)   To express an opinion (interpersonal value) as in *Away with you Satan…you think as men think, not as God thinks* (BYU-BNC).

(ii)   To correct somebody's opinion (subjective value) as in *You, not they, are the judge of the 'built environment'* (BYU-BNC) or *We wept, not because we were frightened but because we were ashamed*[25]. In this use of the construction, the Y element introduces the negative part of the structure that contrasts with the X element of the construction, which is believed to be true or to be the case. Therefore, the construction has two distinctive parts: the *corrigens* and the *corrigendum*. The *corrigens* is affirmative in nature and it can be marked by the corrective *but*. The *corrigendum* is axiologically negative, and this is obligatorily marked, usually by the negative particle *not.* The *corrigendum* is redundant from a truth-conditional point of view: *shaken* is truth-conditionally equivalent to *shaken, not stirred*. Contrastive negation is therefore pragmatically motivated.

Again, it is important to distinguish this correcting use of *contrast* constructions, where two elements are compared and only one of such elements holds, from *complementary contrastive correcting* constructions, as previously explained in chapter 5 (i.e. *Come early evening, after tea time, at any rate*), in which the speaker adds more information in Y that contrasts but at the same time complements the information in X.

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[25]http://www.independent.co.uk/news/world/world-history/history-of-the-first-world-war-in-100-moments/a-history-of-the-first-world-war-in-100-moments-id-never-seen-a-dead-man-then-300-all-at-once-9321346.html last accessed 25/04/2017, 21:10.

(iii)   To make somebody perform an action (that he was not performing, or was not about to perform) according to the speaker's desires or beliefs (i.e. directive value) as in *Shaken, not stirred*. In this last case, the speaker presents two possibilities where the first one (X) is selected to the detriment of the second (Y). X is therefore preferred to Y, or in other words, X is or should be the case and Y is not.

Therefore, the construction *X not Y* can be associated with three main functions that correspond to the three main illocutionary values (i.e. ideational, interpersonal and personal). However, we are aware that there is a very fine line between the idea of expressing one's opinion and correcting someone's opinion, since correcting someone's opinion can be based on either solid knowledge or on opinion. In the latter case, giving an opinion and correcting an opinion are two simultaneous acts. As for making someone do something, this is an act grounded in speaker's authority (see Pérez-Hernández, 2001, pp. 64–65). If the speaker's authority is high, the grammaticalized statement of an opinion (i.e. *you should*) shades off into a command. Take examples (42) and (43) below:

(42) In some cases, (for example if children may inherit) you should choose two executors, **not** just one. (BYU-BNC)

(43) Her room is where you should be, **not** rampaging on the sands like a hoyden. (BYU-BNC)

Example (42) about choosing two executors under certain conditions is expressed as a speaker's opinion, from the point of view of its grammatical form. However, in the context of legal regulations, this example acquires the functional import of an instruction. Example (43) is also grammatically expressed as an opinion, but the wording suggests that the addressee's behavior is unacceptable, which points

to a directive act too, although hinging on a different type of authority (Pérez-Hernández, 2001, p. 65). The speaker is trying to correct the addressee's behavior through an apparent statement of opinion. Therefore, the three functions associated with the construction *X not Y*, although separable, combine in practice. More examples of the *X not Y* construction include the following:

(44) Each finger ends with a sharp claw**, not** a flat blunt nail.

(45) It is within reach of the stage's edge and seems to be of medium length, **not** an elongated cane. (BYU-BNC)

(46) The CVCP indignantly pointed out that all universities were vocational and responsive, and that 'higher education' consisted of three parts, **not** two, the third being the colleges of education. (BYU-BNC)

X per contra Y[26] is just a formal variant of the *X by contrast Y* construction, and as such, it is also used to connect two opposing elements or ideas that are regarded as opposites. According to our corpus data, the use of this construction is not common (only two examples were found in the COCA and two other examples in the BNC). Unlike many of the configurations in this profile, this construction is not necessarily based on objective facts, but rather on the speaker's opinion or perceptions, as evidenced by (47) and (48):

(47) He had worked very hard on the place; she, **per contra**, had little to do. (ODO)

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[26]It is important to note that the connector *per contra* does not appear in the CCD (in its printed version), nor in the CDO. Corpus data shows though, that this connector is used in English, and other online dictionaries such as the MWO and other websites like *Dictionary.com* or *Wordreference.com* include the term. This proves again that there is still a lot of work to be done in common lexicographic practice.

(48) **Per contra,** peer reviews seem to be ineffective, particularly in the field of medicine and other sciences. (Google[27])

Example (47) contrasts the activity of the two people in question according to the speaker's perception of the situation, i.e. *little* is too vague to describe the tasks that she performed on the place, and suggest a diminish of her endeavor. In (48), the word *seem* reinforces the fact that the speaker is being subjective to a certain extent judging the effectiveness of peer reviews.

Some examples of the construction *X per contra Y* found in the corpora may misguide the reader into believing that this configuration can also profile a complementary contrastive, (i.e. concessive) relation between the X and Y elements, as exemplified by (49) extracted from the WebCorp:

(49) I'm sure you must be thinking horrible thoughts about me right now, thinking I've been terrible to you (…). **Per contra,** this has all been for your benefit. (WebCorp)

Although it is true that in (49) we could replace the connector *per contra* by other connectors with a concessive meaning value, the meaning implications would be altered. Consider the difference in meaning among (50), (51), and (52), which have been created for illustration:

(50) You must be thinking I've been terrible to you. **Per contra**, this has all been for your benefit.

(51) You must be thinking I've been terrible to you. **However**, this has all been for your benefit.

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[27]http://context.reverso.net/traduccion/ingles-espanol/per+contra last accessed 02/03/2017, 13:52.

(52) You must be thinking I've been terrible to you. **In any case,** this has all been

for your benefit.

Here, (50) suggests that the speaker may seem to be harming the hearer, but what the speaker has done is to the hearer's benefit. The speaker in (51) admits that it is true that he has been terrible to the hearer, but the speaker's (subjective) intention was to do good to the hearer. In (52), the speaker seems to admit that he has been terrible to the hearer, but this is not necessarily the case, and invites the hearer to not go into whether he was terrible to him or not. Instead, the speaker wants to focus on the fact that what he did was ultimately good for the hearer.

Regarding *X unlike Y,* this configuration captures the main features that make one element distinct from the other, bringing them forward to the addressee to identify them. Another distinguishing feature of this construction is that the connector *unlike* is generally followed by an explanation that reveals how X and Y are different. In this configuration, the elements under comparison are clearly distinguished in origin, and the construction reinforces the idea that they are not similar at all in a crucial aspect for the speaker, as with *X not Y*. But these configurations differ in that in *X unlike Y* both X and Y hold[28]. Another important difference between these two constructions is that while *X unlike Y* can only be used for creating a lexical contrast, *X not Y* can be used for either a propositional or a lexical contrast.

When the connector *unlike* is followed by a noun, this construction means the same as *X different from Y,* and both constructions can be used indistinctively. Nevertheless, *X unlike Y* implies a stronger contrast between the elements involved in

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[28]As explained at the beginning of this section, in *X not Y* the X part of the construction holds, but Y does not hold precisely because X holds i.e. if X holds, Y does not hold.

the comparison. When speakers use this construction, it is because they assume that in the hearer's opinion, X and Y are the same, and use this construction to state that this is not the case. Thus, the specific aspects in which they differ are emphasized, as in (53) below, where natural sciences are opposed to social sciences:

(53) **Unlike** the natural sciences, which deal largely in results, the social sciences are rightly concerned for practice. (BYU-BNC)

By contrast, in *X different from Y*, X and Y contain many features that are dissimilar in origin, and the speaker simply lists all these features. In other words, in each construction, the speaker departs from different affirmations: in *X unlike Y* the speaker is certain that the hearer believes that X and Y are equal and it is not the case, while in *X different from Y,* the X and Y elements are actually different in many aspects. Consider the difference between (54) and (55):

(54) **Unlike** much of Europe, England had long been a territory ruled by one dynasty, and was protected by the Channel from invasion by the great land powers of the Continent. (BYU-BNC)

(55) **Different from** many countries in Europe, England had long been a territory ruled by one dynasty, and was protected by the Channel from invasion by the great land powers of the Continent. (Altered example for convenience)

In (54), the speaker assumes that the hearer had in mind that England's history was similar to that of the rest of the countries in Europe, and uses the construction *X unlike Y* to assert that this was not the case. In (55), this meaning assumption is not present, and the speaker simply explains that the situation in England had been different.

In turn, *X versus Y* was used in origin as the formal version of the configuration *X against Y* for very specialized referee or judgmental contexts such as competitions, where there was an evaluator, referee, or person to judge the events. However, this construction is becoming more informal with time, and speakers have extended its original judgmental meaning to any comparison context in arbitration situations where something or someone is evaluated. Nowadays, this construction can be used for either a propositional or a lexical contrast (although the latter is by far more common, according to the data in our corpus) to contrast two opposing ideas or things, especially when a choice has to be made between them, without specifying which of the elements is selected (i.e. both are equally possible to exist). The most distinctive feature of this configuration is therefore the embedded volition to win or lose between the opposing parts of the construction, which normally calls for a referee or an evaluation process, as the following examples illustrate:

(56) We argued about pipes **versus** cigarettes. (CCD)

(57) In them opposing forces sought to violate his commitment: the physical **versus** the spiritual; the free **versus** the regimented; the religious **versus** the secular; and so on. (BYU-BNC)

(58) Tutors note: It should be noted here that many of the answers relate to past **versus** future benefits. (BYU-BNC)

Successively, the feature that distinguishes *X whereas Y* and *X while Y* (or *X whilst Y*[29]) from the previous configurations discussed here is that in these constructions two elements are conceived in parallel, which allows them to be

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[29]*Whilst* is the same as *while* when it is used as a conjunction. They differ only in form, not in meaning. Whilst is an old fashioned form of the same connector that is preferred in more formal contexts.

contrasted by focusing on the features that make the two elements different. In these constructions, the speaker gives the impression of a balanced contrast between X and Y: if X is regarded as positive, then Y has to be negative in the construction, and vice versa, that is, X is related to Y and Y is related to X, creating a relation of interdependence (i.e. one element contains the attributes that the other one lacks, one element is positive and the other one is negative, etc.). Consider the following examples:

(59) I used to think that money was incredibly important. **Whereas** I look at it now in quite a different way. (CCD)

(60) Asians had a higher risk of mortality relative to Whites **whereas** Hispanics and Blacks did not. (COCA, 2012)

The difference between both constructions lies on the dynamism of the construction. In *X while Y* both elements must happen at the same time for the connector to have a contrastive meaning, whereas in *X whereas Y* the contrasted elements do not necessarily have to take place simultaneously. Consider the difference between (61) and (62) below:

(61) I read *Sports Illustrated* **while** Sarah walked in the woods.

(62) I read *Sports Illustrated* **whereas** Sarah walked in the woods.

Example (61) can be interpreted as if the speaker were reading *Sports Illustrated* when Sarah was walking in the woods. In this case, the contrast profiled by the construction is softer than with the connector *whereas,* as the contrast arises from a pseudo-effect of the application of this construction (i.e. it will be necessary to interpret in context if the intention of the speaker was to contrast both activities or simply to inform that both activities happened at the same time). By contrast, (62) contrasts two

different activities, no matter if they happened at the same time or not. In any case, when X and Y take place at the same time, the differences between the constructions are neutralized, and the two configurations can be used indistinctly, as in *Humans are capable of error whereas/while the computer is not*.

It is worth noting that, unlike *X whereas Y,* the construction *X while Y* can also profile other meaning relations and be part of a different constructional family (i.e. temporal constructions that refer to simultaneity) as in *The Publisher's appointed representative has the right to be present while the copies are being made* (BYU-BNC). In these uses of *X while Y* the X and Y elements do not contrast with each other. This configuration can also profile a complementary contrastive meaning relation between the two compared elements as described in chapter 5 of the present dissertation. But when the construction is used with a purely contrastive value, the existence of one of the elements precludes the existence of the other. When this is the case, the configuration is used to contrast two different events or beliefs that take place at the same time, but that are regarded as opposites, as in *Flats are expensive, **while** houses are cheap* (CCD).

Besides, the construction *X yet Y* is used to emphasize the comparison or existing contrast between the situation described in X and the situation described in Y when this comparison is generated by scalarity (i.e. the situation is one in X, and the same situation is greater in Y). The temporal ingredient is also relevant in this construction, as the Y element necessarily occurs later in time than the X element. Therefore, this construction signals a transition between the states of affairs described in the X part of the construction to the later situation in the Y part of the construction. Consider examples (63) and (64) in this respect:

(63) Everybody was shouting in panic. **Yet** louder shouts rose when the police car arrived. (Altered example for convenience)

(64) Many were killed, **yet** more have been left homeless. (CCD)

Example (63) contrasts and draws our attention to the volume of the screams in two different contexts: In the first one, the screams are accidental, while in the second they are created by the appearance of the police. In turn, (64) focuses on *many* and *more*, and what is contrasted is not that people died or were left out without a house, but the number of people dying and the people left homeless.

Finally, we would like to draw the reader's attention to the special case of *X and Y* and *X but Y*. The connectors in these configurations are generally understood as additive and concessive[30] discourse markers respectively. But the analysis of the data in our corpus reveals that these constructions can also profile a contraposition or purely contrastive meaning, since they are also used to link two statements that contrast with each other, exposing both alternatives at the same level and without focusing on one or the other. When this is the case, these constructions are always interchangeable as seen from the similarity in meaning expressed in the following examples:

(65) Mary prefers coffee, **but**/**and** Peter prefers tea.

(66) My mother is English, **but**/**and** my father is Canadian.

However, there are cases where selecting one of these constructions over the other has very different meaning implications, as in (67) and (68) below:

(67) Juanita is brilliant **and** Shalimar has a pleasant personality.

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[30]Section 5.1 of the present dissertation studies concession in depth, with special emphasis on the *X but Y* construction.

(68) Juanita is brilliant **but** Shalimar has a pleasant personality.

As suggested by Blakemore (1987), a conjoined utterance as the one in (67) is presented as a unit, encouraging the hearer to process the two conjuncts jointly and in parallel, looking for implications derivable from both. This fact explains how (67) in context can imply that Shalimar is not brilliant. However, this implication is not directly encoded by the construction itself, but by the elements preceding and following it.

By contrast, in (68) the focus is in the contrast between both positive qualities (being brilliant and having a pleasant personality), without necessarily implying that Shalimar is not brilliant, as if the speaker could not determine what is best; being brilliant or having a pleasant personality. This meaning is directly encoded by *X but Y* when it profiles a contrastive meaning.

Besides, contrast and concession are closely linked in the case of *X but Y*. For example, the sentence *We haven't got our own TV but we have got a stereo* clearly profiles a contrastive meaning, but it could be "mildly" concessive depending on the context, with almost the same meaning as A*lthough we haven't got our own TV, we have got a stereo* in a context where someone has made a remark about the speaker not having a TV that has bothered him/her. *We have got a stereo* is, in this context, self-reassuring. Examples (69) and (70) further illustrate this point:

(69) **Although** the boy is handsome I don't like him.

(70) The boy is handsome **but** I don't like him.

In both examples, everyone accepts that the boy is handsome, but this fact is not a reason for the speaker to like him. The difference between (69) and (70) is a matter of focus. In (69), the speaker has been convinced that the boy is handsome (it is implied that he did not think so or that he had not realized), while in (70), this is not the

case, that is, the speaker already knew the boy was handsome in the first place (according to general opinion). In other words, while (69) profiles a concessive meaning, (70) profiles a contraposition interpretation.

However, some uses of *X but Y* are clearly contrastive, and cannot be confused with concessive uses of the same configuration. This is specially the case in contexts where speakers formulate an objective comparison, as in (71) below. Example (72) has been included to prove that it is impossible to formulate (71) from a concessive perspective:

(71) My mother's eyes are blue, **but** her mother's eyes are brown.

(72) ***Although** my mother's eyes are blue, her mother's eyes are brown.

By contrast, *X and Y* can never profile a concessive meaning, as the following examples illustrate:

(73) Sarah loves volleyball **and** she hates football.

(74) Sarah loves volleyball **but** she hates football.

Example (73) is equivalent to *Sarah loves volleyball whereas she hates football*, whereas (74) is similar to *Although Sarah loves volleyball, she hates football.* The main difference between *X and Y* and *X but Y* in these examples is that (74) implies that the speaker had assumed that Sarah would probably like both sports due to their similarities, when that is not the case (i.e. a *concessive* construction). The focus in this sentence is therefore on the fact that Sarah hates football. By contrast, in (73), there are two foci with the same degree of importance (a *contraposition* construction).

6.2 Exception constructions

Exception constructions comprise the following configurations: *X but Y; X besides Y; No X other than Y;* and *There's no X like Y.*

Within the family of purely contrastive alternations, these four configurations can express that Y is the only exception that confirms that the circumstances in X are true. In these constructions, while X describes a general situation or group of elements, Y concentrates on the particular element that contradicts X, as in *He has nothing **besides** his salary.* The following lines offer a description of the contexts where each of these constructions are used.

To begin with, when *X but Y* introduces a partial instead of a complete contrast, the resulting comparison is functionally equivalent to an exception, as in *We can't do anything **but** wait.* The construction, therefore, can express an exclusion after a generalization is made. Examples (75) to (77) present other contexts where *X but Y* is used to profile this exception meaning:

(75) This woman depended on no one **but** herself and would do what she must to survive. (COCA, 2011)

(76) He had no one to blame for this **but** himself. (COCA, 2012)

(77) He trusted nothing **but** himself, and he needed no one. (COCA, 2012)

As for *X besides Y*, the central meaning of this construction is not purely contrastive, but complementary contrastive[31]. However, when speakers introduce a generic element in the construction such as no one, nobody, nothing, etc. the meaning

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[31]As seen in the previous chapter 6, the connector *besides* originally transmits the idea of "as well as" or "in addition to".

of the connector besides is extended from its central complementary contrastive meaning to the purely contrastive, with the purpose of suggesting the existence of an exception. In this manner, the construction takes the form of *X no one/nothing/anything/… besides Y,* as evidenced by (78) and (79) below:

(78) Bob Wells, union plumber, a man who I had never seen wearing anything **besides** blue coveralls. (COCA, 2012)

(79) Indeed, one could almost believe that many fundamentalists have never read anything **besides** the Bible. (COCA, 2006)

In (78) and (79), the connector *besides* can be replaced by *except* without apparent differences in meaning, implying that Bob Wells in (78) only wears blue coveralls and that the only book that fundamentalists have ever read is the Bible in (79). The exception is created as a pseudo-effect of first contrasting any type of clothes with blue coveralls in (78), and opposing the Bible to any other book in the world in (79). In both cases, the generic element *anything* is crucial to create the exception. In examples such as (78) and (79), *X but Y* and *X besides Y* are totally interchangeable.

In turn, *No X other than Y* and *There's no X like Y,* which also profile the meaning of an exception, are highly related in form and meaning. However, as far as we know, no studies have taken these two constructions into account at discourse level, nor in research on expressions used to create contrast in language.

The construction *No X other than Y* means that the only element that can fully represent X is Y. In this configuration, the X variable represents a collection formed by different elements, while Y is the prototypical or best element within those elements contained in X, the one that has the most attributes to characterize X as what it is. The speaker goes further and declares that Y being unique, the rest of the elements of the

set need to be disregarded. The exception is thus created by giving more prominence to Y, as in *He believes there is no genius other than himself.* This construction can be replaced by *X but Y* or *X besides Y* because this configuration also profiles a generic value and the exception to that generality, but with different meaning values.

Finally, *There's no X like Y* is used to emphasize that the Y element is highly appreciated by the speaker, despite the fact that the other elements to which it is compared (contained in X) are very positive or satisfying too. Therefore, the speaker's subjective perspective is always inherent to the construction, and it is used to express in an emphatic way the positive view that the speaker has towards the element contained in Y. Therefore, in this configuration, the focus is not so much on the comparison but on the positive feelings deriving from Y, as in *There's no place like home* (Google[32]) or *There's no other like my mother* (Google[33]).

In contrast to the previous *X but Y* and *X besides Y* configurations, in *No X other than Y* and *There's no X like Y* the *exception* meaning is achieved through comparison, not by actual exception. As a matter of fact, in *There is no genius other than himself* (altered example[34]) it could be the case that no genius existed (besides himself), but we could not say *there's no place*, as it would be inherently false. What speakers do is reduce the meaning of the generic notion of "place" to a subclass of places that have certain features (comfortable places, warm places, welcoming places, etc.), and within this subclass of places bearing these features, speakers create the exception. So,

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[32] http://idioms.thefreedictionary.com/There%27s+no+place+like+home last accessed 25/04/2017, 19:50.

[33] http://www.thestarlitecafe.com/poems/105/poem_91045095.html last accessed 25/04/2017, 19:52.

[34] Original example: "There is no genius other than that which is expressed in works of art". Available online at http://www.goodreads.com/quotes/181805-for-many-have-but-one-resource-to-sustain-them-in last accessed 25/04/2017, 19:54.

There's no place like home in reality means "from all the comfortable, warm, welcoming… places in the world, none is as comfortable, warm, or welcoming".

6.3 Alternative-contrastive constructions

Alternative-contrastive constructions comprise the following configurations: *(Either/whether) X or Y; X alternatively Y; X and Y; X but Y;* and *X however Y.* These constructions are used to bring to the fore alternatives that contrast with each other.

In Either/whether X or Y, the coordinating conjunction *or* brings together the X and Y elements, connecting different possibilities of equal importance. The central meaning of this construction is purely contrastive and can profile both a lexical and a propositional contrast. But depending on the context where the construction is inserted, this contrastive meaning can be extended to adopt a complementary alternation meaning value. It is in these cases that this configuration can be replaced by *X much less Y* without apparent differences in meaning (see chapter 4 of the present dissertation)*.* In any case, when this construction profiles a purely contrastive meaning relation, X and Y represent opposite elements where the existence of one precludes the existence of the other. This construction therefore offers the hearer the possibility to choose between two elements. According to the data in our corpus, this configuration can be used:

(i)   To present various alternatives only one of which can be the case. This meaning can be used in those contexts where the selection is neutral, as in *At the beach or by the lake, Is it Tuesday or Wednesday today?, It doesn't matter whether you win or lose,* etc.

(ii)   To present the Y element as being a consequence of not choosing the X element. This meaning is an extension of the previous more central meaning of neutral selection. In this case, the construction can be used to offer a suggestion. The construction can profile this meaning only when the X part of the construction is a condition and Y a possible (not a necessary) consequence of the condition contained in X. Thus, the construction can be equivalent to the *If not X then Y* configuration, as evidenced by (80) and (81) below:

(80) Do you want to keep this **or** can it be a dog toy? (COCA, 2012)

(81) You can study hard for this exam **or** you can fail.

In (80), if the hearer decides that he does not want to keep the object in question, then the consequence is that the object will become a dog toy. The condition for the object to become a dog toy is that the hearer will not want to keep it. Similarly, in (81) failing is understood as the consequence of not completing the condition contained in X, that is, if the hearer does not study hard, the consequence is that he will fail, or if he does not study, he will fail.

(iii)   To apparently present various alternatives when only one is acceptable according to social conventions. In this case, the speaker proposes two alternatives, but behind these alternatives there is the implication that choosing the second one will upset the speaker because it will be considered rude. Therefore, the hearer is left with no choice but the first option. So, what in origin seemed to be a proposal to choose among several other options becomes the obligation to take the only real choice given. This explains why when speakers use this construction with this meaning value, the construction acquires a directive meaning, as in *Are you listening to me or not?,* which has the same directive force (though slightly different implicatures) as *Listen to me!*

This explanation is consistent with the constructionist approach to illocution taken by Ruiz de Mendoza and Baicchi, (2007), Baicchi and Ruiz de Mendoza (2010), Del Campo and Ruiz de Mendoza (2012), and Pérez-Hernández (2009, 2013), based on an account of the formal coding of elements from illocutionary scenarios. The formal expression of an alternative can be understood as cueing for the activation of a scenario where someone is confronted with two choices, one of which is desirable from the speaker's perspective. The hearer is, by socio-cultural convention, expected to choose the scenario that benefits the speaker.

On the other hand, the meaning of *X alternatively Y* is literal and presents two alternative circumstances (i.e. the Y element of the construction introduces a statement in which the speaker mentions something different from what has just been mentioned in X). The analysis of the data in our corpus reveals that this construction is used in rather formal contexts and it can be combined with the conjunction *or* to reinforce the idea of the possibility of choosing between X and Y when the connector is not placed in sentence-initial position, as in *We can arrange for a car to be delivered or, alternatively, you may book though your London office* (CCD).

The main difference between this construction and the previous ones discussed here is that this configuration signals a propositional contrast and cannot be used to create a lexical contrast. Another characteristic feature of this configuration is its objectivity: unlike with the second and third uses of the previous *X or Y* construction, when speakers use this configuration they allow the hearer to understand that there is no false alternative or cause-consequence possible interpretation. The only possible interpretation of this construction is the same as the first objective use contained in *X or Y* above, that is, a neutral selection. Consider the following examples in this respect:

(82) Turn off the heat, and allow to sit for 15 minutes without uncovering. **Alternatively,** wrap the tortillas in a towel, and heat in the microwave for one minute. (COCA, 2011)

(83) However, you could just use a perfectly plain piece of card **or, alternatively**, one that has some calligraphy incorporated into the design, some pretty scroll work, or anything else that appeals to you, and then seal it. (BYU-BNC)

In (82) and (83), the connector *alternatively* is used to link two different possibilities for the same state of affairs. In (82), the hearer can choose between allowing the tortillas to sit for 15 minutes or wrapping them in a towel and heating them in the microwave. This construction conveys the idea that either the result or the speaker's feelings about the result will not be affected by the speaker's choice. In (83), the hearer can choose between using a plain piece of card or a non-plain piece. The selection depends completely on the speaker's decision, and both options are equally valid.

The *X and Y* configuration can also be used to bring to the fore two alternatives that contrast with each other when the contrast arising between the X and Y elements is lexical instead of propositional. In this case, the meaning of the construction is the same as that of *X or Y*, as evidenced by the following examples:

(84) He still doesn't know the difference between right **and** wrong.

(85) What you say **and** what you do are two different things.

Regarding *X however Y,* this configuration also links two alternatives, but focuses on the alternative contained in Y that is perceived as better or worth mentioning, as in *Losing at games doesn't seem to matter to some women. Most men, however, can't stand it at any price.* This example has been previously mentioned as a *contraposition*

construction, since, depending on the context, the focus can be on linking alternatives, or just on expressing an existing big difference between two elements. Another similar example, created here for the sake of our discussion, is: *I prefer bananas. However, these strawberries look good too*. In this case, the speaker expresses that in normal circumstances, he likes bananas more than strawberries. Using the connector *however,* the speaker presents both fruits as equally attractive, and given the actual state of affairs (i.e. strawberries look especially good this time) the sentence suggests that the speaker will opt for the strawberries.

Finally, *X but Y* can also profile an alternative-contrastive meaning to offer two distinctive and alternative possibilities to do something. This use is not included in any of the dictionaries consulted, which is very surprising given the large quantity of occurrences in the COCA and BNC. We have selected examples (86) and (87) below by way of illustration:

(86) This recipe is for fillets, **but** you can also use the marinade with a whole fish. (COCA, 2013)

(87) A bread machine is recommended, **but** you can also mix the dough in a stand mixer. (COCA, 2013)

In (86), the speaker talks about a given recipe that is mainly designed for fish fillets, but that it can alternatively be used with a whole fish, obtaining the same result in terms of flavor. In the same vein, in (87) the speaker reflects about two different and alternative ways to make bread, either with a bread machine or with a stand mixer. In both examples, one option is preferred to the other, but the result will be similar with either alternative.

6.4 Disagreement constructions

Disagreement constructions comprise the following configurations: *X on/to the contrary Y; Disagreeing with X, Y; X contradicting Y; X against Y; X in opposition to Y; Opposing X, Y; X inconsistent with Y; X but Y; X counter to Y; X at odds with Y; X as opposed to Y;* and *X is not Y but Z.*

These constructions are used to express disagreement or a different opinion that may result in the correction of a previous statement or conventional assumption (regarded as erroneous by the speaker) with new, real and verifiable facts. As will be clarified later, each construction involves slight differences in meaning. However, in many cases these differences are neutralized in practice making these configurations converge on the same function.

To begin with, *X contrary to Y*[35] and *X on/to the contrary Y* seem to be very similar in form and meaning, since both serve to contrast a given element with another one that has just been mentioned. However, they are not always interchangeable. *X contrary to Y* is used to cancel raised expectations or (well established) opinions regarded as erroneous by the speaker. These wrong expectations or opinions are expressed in the Y variable of the construction (i.e. introduced by the connector *contrary to*), while the X element explains how the opposite is true or correct given the state of affairs at hand. Therefore, this construction has to be based on verifiable facts. Consider the following examples in this respect:

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[35]This configuration can also appear as *Contrary to Y, X* or as *X is contrary to Y* at linguistic level or syntactic realization by changing the topic-focus relation in the construction. This change has its impact from a functional point of view: these syntactical variants present a very slight variation in meaning, as *X is contrary to Y* focuses on Y whereas its constructional variants don't.

(88) **Contrary to** common assumption, community care is far more costly than institutional care. (BYU-BNC)

(89) **Contrary to** popular misconception, Britain received more than any other Western European country. (BYU-BNC)

(90) According to Hocking, paper cups cannot be recycled because they contain chemical additives. **Contrary to** popular belief, the polystyrene ones can. (BYU-BNC)

By contrast, *X on/to the contrary Y* is simply used to indicate that an idea or a statement contradicts another. Therefore, this construction is more neutral than the *X contrary to Y* configuration, as (91) and (92) illustrate:

(91) Whether this is because our imperial hegemony has overwhelmed the possibility of even rhetorical resistance or because, **on the contrary**, the empire is not as mighty as it used to be, is a topic for another day. (COCA, 2011)

(92) Nobody pays her any attention. Bushy Tail, **on the contrary**, misses nothing. (COCA, 2012)

As was previously explained in chapter 5, this construction also belongs to the *complementary contrastive* constructional family when the connector appears in sentence initial position, as in *Matt Mackowiak is laughing not because he doesn't want Romney to win. **To the contrary,** he really does want him to win* (COCA, 2012) or in *There is no evidence that women have been treated in a discriminatory manner. **To the contrary,** women were more likely to have been hired than men* (COCA, 2003). These examples do not place X and Y in pure contrast, but in complementary contrast, because in these constructions Y reinforces X. In order to profile a purely contrastive

meaning, the X and Y variables in *X on/to the contrary Y* need to imply opposite meaning values where Y cancels out part of X. It is therefore crucial to study this construction in context. Consider the difference between (93) and (94), created for the sake of argumentation:

(93) He is not an idiot. **On the contrary**, he is very intelligent.

(94) He believes Paul is an idiot. **On the contrary**, I think he is smart.

In (93), *X on the contrary Y* profiles a complementary contrastive relation because Y adds to X (i.e. not only the speaker believes *he* is not an idiot, but he also believes *he is very intelligent).* These examples suggest that to profile a complementary contrastive meaning, the X part of the construction needs to be negative, (i.e. contain a negation of the *not* type). By contrast, (94) profiles a purely contrastive relation, as what *he* believes directly opposes what the speaker thinks (i.e. they are opposite values that cannot coexist).

Moving on in the analysis of *disagreement* constructions, *Disagreeing with X, Y* is based on the opinion of the subject of the construction that regards Y as the correct fact, opinion, modus operandi or assumption. That is, the meaning of the construction is literal. In this construction, the X and Y elements represent contrary ideas, opinions, or attitudes, and as such are completely different from one another in a way that makes it impossible for the subject to accept both at the same time. Speakers use this configuration not to correct a wrong assumption, but to state a different opinion, as the following examples illustrate:

(95) **Disagreeing** with Freeman's claim that Mead prejudged her conclusions, Marcus argues that Mead distorted Samoa "because she used poor field methods". (COCA, 1993)

(96) **Disagreeing** with the President, he resigned and returned to his estate May 1, 1917. (Google[36])

(97) **Disagreeing** with the duke of Wellington on the question of parliamentary reform, he entered the ministry of Grey as home secretary in 1830. (Google[37])

The meaning of *X contradicting Y* is also literal, and it is simply used to state that one of the elements gainsays what the other declares. It is necessarily based on the opposition of the subject of the proposition towards what has been stated after the connector of the construction. Unlike the previous *X on/to the contrary Y*, this configuration makes reference to opinions, declarations or ideas, not to actions, and it is used in contexts where the subject simply contradicts or displays an external existing disagreement, or the subject displays his personal disagreement and corrects what was previously stated. Examples (98) and (99) illustrate the first use of the configuration, which simply displays an external existing disagreement. It is worth noticing that in (98), the PERSON FOR PERSON'S OPINION metonymy allows the hearer to interpret that what is being contradicted is not Aguirre as such, but Aguirre's opinion or declaration.

(98) **Contradicting** Aguirre, Bradford later said he had never been told in advance of the mass-arrest plan. (COCA, 2008)

(99) **Contradicting** the government's report, the Serb side said fighting was continuing, with Muslim forces shelling Serb areas. (COCA, 1995)

In turn, examples (100) and (101) illustrate the activation of the second meaning zone of the construction, for the cases where the different opinion (the element

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[36]http://sentence.yourdictionary.com/disagreeing last accessed 05/04/2016, 18:24.
[37]http://sentence.yourdictionary.com/disagreeing last accessed 05/04/2016, 19:30.

introduced by the connector) can be understood as a false assumption that needs to be corrected:

(100) **Contradicting** conventional wisdom, adult human brain and heart cells can divide. (COCA, 1998)

(101) **Contradicting** what scientists once thought they knew about the way landmasses and mountains form, the continent is being ripped apart. (COCA, 1999)

As for *X in opposition to Y*, this configuration implies that the opinion, statement, belief or state of affairs designated by the X part of the construction is contrary to the opinion, statement or belief expressed in Y. This construction is used for two purposes:

(i)   To imply a strong disagreement and disapproval between two elements, as in (102) and (103) below:

(102) **In opposition to** Rousseau, who wanted to protect children from society, Dewey believed that the only way a child would develop to its potential was in a social setting. (COCA, 2003)

(103) **In opposition to** Katharina, I find flying wonderful. (COCA, 1996)

(ii)   To signal that one of the elements has or lacks certain qualities that are crucial for the speaker's argumentation, as illustrated by (104) and (105) below:

(104) **In opposition to** Marxism, neoclassical economic theory also can be strong and coherent when applied to relevant phenomena. (COCA, 2005)

(105) **In opposition to** Yose and Rabbi Silverstein, the Georgian and Russian Jews were able to forget their differences because both groups considered themselves to be rossiiskie evrei (Jewish citizens of Russia). (COCA, 2001)

As regards *Opposing X, Y,* the X variable is introduced at the beginning of the construction to signal a strong difference in opinion or mode of operation, to then elaborate on the Y variable. When this construction is used, the speaker is a mere informant, a reporter, a witness of the events or holder of the information. This construction seems to be interchangeable with *X in opposition to Y* above without apparent differences in meaning. Consider the following examples:

(106) **Opposing** this amendment, the administration said that for the health of the economy, it has no choice but to prop up Fannie and Freddie until the housing market recovers. (COCA, 2010)

(107) **Opposing** abortion, the president withheld funds from organizations that sponsored the procedure or provided related counseling. (COCA, 2004)

Besides, the construction *X inconsistent with Y*[38] is used when the resulting state of affairs (i.e. the real, existing situation) does not correspond with the expected situation. Therefore, the difference between what was expected and what is the case is what produces the contrasts between the X and Y variables. In this configuration, the state of affairs designated by the Y element is a verifiable fact, whereas the X element is the erroneously assumed fact, which makes this construction more neutral than other constructions. Consequently, this construction is used in formal contexts to correct wrong assumptions or hypotheses. In any case, this construction does not seem to be very common, as we were unable to find any examples of it in the BNC or

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[38]The ODO does not include this meaning profile for the connector *inconsistent.*

in the WebCorp in sentence initial position. As regards the other corpora used in this work, the COCA contained very few occurrences, including (108) and (109) below:

(108) **Inconsistent with** the hypothesis, the result shows no significant difference between treatment and no treatment groups. (COCA, 2006)

(109) **Inconsistent with** Kohlberg's hypotheses, there were no significant correlations between age and WAS scores. (COCA, 1997)

Moving on in the study of *disagreement* constructions, *X counter to Y* could be replaced by *X contrary to Y* or *X as opposed to Y* without any differences in meaning in examples such as *Counter to this trend, music education still places its emphasis on one-shot, auditorium performances of large ensembles* (COCA, 2007). These constructions only present etymological differences that have been neutralized over time, and therefore it is very hard to find cases where these constructions are not interchangeable; in the speakers' minds, these original differences have disappeared, and *X counter to Y, X contrary to Y,* and *X as opposed to Y* have simply become expressive variants that fulfill the same function, though the initial values, which are traceable diachronically, remain dormant, for the reasons that shall be expounded below.

The connector *counter* in the configuration *X counter to Y* has evolved from the Old French word *countre*, meaning a "table where a money lender does business". A metonymic extension allowed this expression to refer not only to the physical table where the counting was performed, but to any situation where one element was placed "facing opposite" another element (like the people involved in the counting would have been at both sides of the *countre* table). Therefore, this configuration implies that the two opposing elements, that are at the two ends of the contrast continuum, are

metaphorically (i.e. IDEAS/ACTIONS ARE OBJECTS) opposed to one another, which allows them to be compared by concentrating on the differences instead of on the similarities that hold between both elements. Consider examples (110) and (111):

(110) One of the major problems of including students with EBD in general education classrooms was the likelihood of rejection by peers and ostracism from social relationships**. Counter to** this expectation, Farmer and his colleagues found that most students with EBD and other mild disabilities have close friends in general education classrooms. (COCA, 1999)

(111) **Counter to** what others had predicted, the team found that the brain cells that enhance attention are distinct from those that suppress attention. (COCA, 2009)

In turn, the preposition *as* in the connector *as opposed to* is used to make explicit the existing metaphor in the speaker's speech, in which the source domain is the visualization of having an element in front of another and the target domain is the actual situation that the speaker refers to.

Finally, the word *contrary* directly derives from the Anglo-French *contrarie* and from the Latin *contrarius,* directly meaning "opposite, opposed", and there is neither a metonymic extension nor a metaphor behind this configuration.

The case of *X at odds with Y* is very different from the constructions above, since this configuration is not based on metaphorically opposing an element to another. Instead, the connector *at odds* suggests that the information contained in the X variable is strange for what is contained in Y, and therefore is not part of the Y set. This construction suggests that the variables X and Y have particularities or differences that make them conflict or avoid them to match or suit one another as in (110) below (i.e.

students' suggestions conflict with the bio-psycho-social assessment of the client made by another student) but the existence of one of the elements does not necessarily forbid the existence of the other (although it is true that the existence of one of the elements makes the existence of the other more difficult).

> (112) In one of the first author's MSW practice classes, a student presented her work with a young African American female client who resided in a shelter. In terms of possible interventions, students suggested linking the client to a local church and making contact with family members and fictive kin. **At odds with** these suggestions, however, was the student's bio-psycho-social assessment, which revealed the client's absence of religious affiliation and lack of ties with family based on her choice. (COCA, 2009)

In any case, this construction does not seem to be very productive, as only one example was found in sentence initial position in the COCA and BNC respectively. According to the data in our corpus, this configuration is commonly used as an economic stylistic device in newspaper headlines to display the existing opposition between two elements, but not at discourse level.

Finally, *X is not Y but Z* has three variable elements divided into two distinctive parts: in the first, *X is not Y*, the hearer's expectations are cancelled as the speaker confirms that X (the subject of the construction) is not what the hearer had assumed it was, as Y refers to the false attributes assigned to X. In this first part of the construction, the speaker presumes to know what the hearer previously had in mind, whereas in the second part of the construction, (i.e. *but Z*) the speaker confirms what X is, creating a contrast between what the hearer thought X was, (contained in the Y variable) and what it is. In other words, the Z variable is used in the configuration to correct the

hearer's wrong assumptions in Y by offering those attributes that characterize X. Therefore, this construction is used to correct false assumptions about a state of affairs, as seen from the following examples:

(113) A library **is not** a luxury **but** one of the necessities of life. (Google[39])

(114) Success **is not** a destination, **but** the road that you're on. (Google[40])

(115) He **is not** dead, **bu**t sleepeth. (Google[41])

At this point, we would like to clarify that the meaning this construction profiles is completely independent of the correcting meaning profile identified *for complementary contrastive* constructions examined in chapter 5, section 5.3, of the present dissertation. Even though the *X is not Y but Z* configuration results in the correction of a wrong assumption, the meaning base of the configuration is purely contrastive, not complementary contrastive, since it does not contain any additive value. Consider the following example in this respect:

(116) The majority of inhabitants in these enclaves **were not** Spanish **but** rather were recent immigrants from Great Britain. (WebCorp)

In this example, the speaker assumes that the hearer made the wrong assumption that most inhabitants in those enclaves were Spanish. The speaker corrects the hearer's wrong assumption by saying first what he assumes the hearer had in mind, to correct it introducing a new element that corresponds to the actual state of affairs, i.e. that the inhabitants were recent immigrants from Great Britain, which directly contrasts with the information the hearer had in mind. This new element cancels out the previous one.

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[39]https://www.brainyquote.com/quotes/quotes/h/henrywardb383333.html last accessed 16/04/2017, 12:17.
[40]https://www.brainyquote.com/quotes/quotes/m/marlonwaya496063.html last accessed 16/04/2017, 12:19.
[41]https://en.wikipedia.org/wiki/002:_He_Is_Not_Dead,_But_Sleepeth last accessed 29/12/2015, 12:38.

7

Representation of discourse constructions in FunGramKB

This chapter, which concerns the grammatical module of FunGramKB, a multipurpose lexico-conceptual knowledge base for Natural Language Processing systems (http://www.FunGramKB.com/), discusses computational implementation requirements on constructional description for discourse structure. The computational implementation (and simulation) of constructional meaning has been an object of interest in the work of several scholars over the last decade. Mention must be made of Embodied Construction Grammar (Bergen & Chang, 2005, 2013) Fluid Construction Grammar (Steels, 2011, 2012) and Sign-Based Construction Grammar (Boas et al., 2009). However, the goals and subsequent representational mechanisms of these approaches diverge from our own. Thus, Embodied Construction Grammar, which is based on the Neural Theory of Language (cf. Feldman, 2006) provides computational models of the cognitive and neural mechanisms that underlie human behavior

including language use. In this approach, every sign is taken to involve mental simulations grounded in image-schematic (or embodied) thought, while the representational apparatus is a unification-based one with notations for expressing features, inheritance, typing, and the like, as found in traditional unification-based grammars (e.g. Pollard & Sag, 1994). Similarly, Fluid Construction Grammar also offers a unification-based parsing-production (i.e. bidirectional) mechanism that is sensitive to embodied experience (as shown by experiments in robotics) and to the dynamics (or "fluid" nature) of change in grammar. Finally, Sign-Based Construction Grammar is a synthesis of Berkeley's Construction Grammar and Head –Driven Phrase Structure Grammar, which endows it with the ability to be implemented computationally. In this approach, a sign is a node in a syntactic tree that is ascribed some syntactic and semantic properties, some of them being combinatorial (e.g. a sign lexeme for *drink*, on the basis of a frame analysis, contains a drinker and a liquid which are co-indexed with corresponding elements of a valence set consisting of two NPs; (Boas et al., 2009)).

Unlike the Lexical Constructional Model (LCM), none of the constructionist approaches briefly described above offers an account of discourse constructions, much less of their computational tractability. Nor is it clear in what way their descriptive apparatus, even in the cases in which it links up with embodied cognition, can account for the complexity of the implicational aspects of constructional meaning, which is characteristic of levels 2, 3, and 4 of the LCM. Note, in this respect, that constructional meaning beyond argument-structure representations is grounded in what Ruiz de Mendoza (2015) has aptly described as a process of inference entrenchment. Much of the meaning coded in them is dependent on metonymically supported inferential schemas of the premise-conclusion kind (see also Ruiz De Mendoza Ibáñez & Galera

Masegosa, 2014, p. 153), which means that accounting for it places stronger demands on the production-processing mechanisms than is provided by the constructionist accounts mentioned above. The situation is different in the case of the LCM, which has sought as its natural ally FunGramKB. There are two reasons for this. First, FunGramKB, like the LCM, has a four-layered architecture that takes into account implicational, illocutionary and discourse constructions. Second, and still more important, FunGramKB has devised a powerful descriptive metalanguage that can capture many more aspects of world knowledge than other computational implementations aiming at Natural Language Processing. It is precisely the descriptive ability of this metalanguage that has lies at the base of the different components of FunGramKB: an *Ontology* (knowledge of objects, their properties and relations), a *Cognicon* (scripted knowledge), an *Onomasticon* (knowledge of unique objects or characters) and its *Constructicon* (which, besides Aktionsart characterizations, is capable of coding idiomatic knowledge, implicational and illocutionary aspects of meaning, and logical, temporal and conceptual relations between sets of predications and their associated meaning implications (Luzondo Oyón & Ruiz De Mendoza Ibáñez, 2015, 2017; Ruiz De Mendoza Ibáñez, 2014).

It is not the aim of this chapter to offer a detailed description of the whole architecture of FunGramKB, which readers may find elsewhere (cf. Periñán-Pascual, 2013a, 2013b, Periñán-Pascual & Arcas-Túnez, 2007, 2010b, 2011, Periñán-Pascual & Mairal Usón, 2009a, 2010). Instead, this chapter provides readers with a proposal on how discourse constructions can be treated in FunGramKB, which includes a discussion of their representation in COREL, the metalanguage used for conceptual and constructional representation in FunGramKB. This chapter also describes the problems we have encountered in the process, offering a new direction and

suggestions for future research that may be of use for both linguists and knowledge engineers interested in developing discourse structure from a computational perspective.

To accomplish this goal, this chapter is organized as follows. Section 7.1 offers a brief overview of FunGramKB and its computational architecture. Then, section 7.2 contextualizes and describes the *Grammaticon*, the linguistic module where constructional schemata are stored in FunGramKB. After these introductory sections, section 7.3 presents some preliminary steps towards the possibility of computationally representing the idiomatic discourse constructions analyzed in chapters 4, 5 and 6 in FunGramKB, by means of COREL. Finally, some concluding remarks are offered in section 7.4.

7.1 What is the FunGramKB Suite and what is it useful for?

FunGramKB, or the Functional Grammar Knowledge Base, is a multi-functional and multilingual (i.e. so far English, Spanish, German, French, Italian, Bulgarian and Catalan) knowledge base for NLP systems that aims at integrating conceptual structure into systems of natural language processing (Periñán Pascual & Arcas-Túnez, 2011). It is a useful tool for such diverse tasks as information extraction and retrieval, machine translation or dialogue-based systems. FunGramKB is nowadays the only knowledge base which is able to computationally manage constructional characterizations at all major levels of meaning construction (Luzondo Oyón & Ruiz De Mendoza Ibáñez, 2017, p. 33).

The LCM and FunGramKB are closely interconnected. On the one hand, the LCM offers FunGramKB a set of analytical tools that provides a comprehensive description of all those factors involved in meaning construction (even those that are concerned with the non-propositional dimension of meaning) that are necessary for NLP purposes. On the other hand, FunGramKB endows the LCM descriptions with a high degree of computational tractability within the context of Artificial Intelligence-oriented knowledge-based systems (Mairal Usón, 2015). In sum, developments in the LCM nourish FunGramKB with greater linguistic descriptive adequacy, and advancements in FunGramKB allow the LCM to test the validity of its postulates from a computational perspective.

FunGramKB was originally designed by Periñán and Arcas in the early 2000s, when they realized that the main problem in the construction of natural language understanding systems was usually the lack of a well-developed semantic knowledge base (Periñán Pascual, 2013a). Since then, FunGramKB has been continually updated and developed to become a user-friendly online environment for the semiautomatic construction of a multipurpose lexico-conceptual knowledge base within the context of NLP (Luzondo Oyón, 2011; Luzondo Oyón & Jiménez Briones, 2014; Luzondo Oyón & Ruiz De Mendoza Ibáñez, 2015, 2017, Mairal Usón & Periñán Pascual, 2008, 2010a, Periñán Pascual, 2012, 2015, Periñán Pascual & Arcas-Túnez, 2010, 2005, 2008, Periñán Pascual & Mairal Usón, 2009b, 2010).

Unlike most NLP projects which are based on probabilistic, context-free grammars, a major strength of FunGramKB is that it is one of the first systems which, given an input text, employs a robust knowledge base to generate a full-fledged conceptual logical structure (henceforth, CLS) to be used in NLP applications requiring language comprehension capabilities (Mairal Usón & Periñán Pascual, 2014). This

makes FunGramKB a very powerful reasoning system which is based on the way lexical and constructional meaning interact. However, no matter how promising this system might be, it is important to bear in mind that it is not yet possible to create a computational system that uses language and language-based inference fully like humans.

Recent research into the FunGramKB Suite has resulted in the development of ARTEMIS (Automatically Representing Text Meaning via an Interlingua-based System), a proof-of-concept computer application which can automatically provide a semantic representation of a text under the format of a CLS (Periñán Pascual, 2013b; Periñán Pascual & Arcas-Túnez, 2014b). Thanks to ARTEMIS, now not only argument-structure constructions can be represented; the system is now able to deal with non-propositional meaning too (i.e. constructions at levels 2, 3 and 4 of the LCM).

As explained by FunGramKB and ARTEMIS developers (Mairal Usón, 2015; Periñán Pascual & Arcas-Túnez, 2014b), a linguistic-conceptual interface captures the connections between these components, i.e. each lexical entry in the *Lexicon* is linked to a conceptual unit in the *Ontology* and the semantic description of a construction has access to conceptual information, thus allowing ARTEMIS to provide a rich semantic interpretation of an input text. The following diagram (*Figure 9*) represents the general architecture of ARTEMIS:
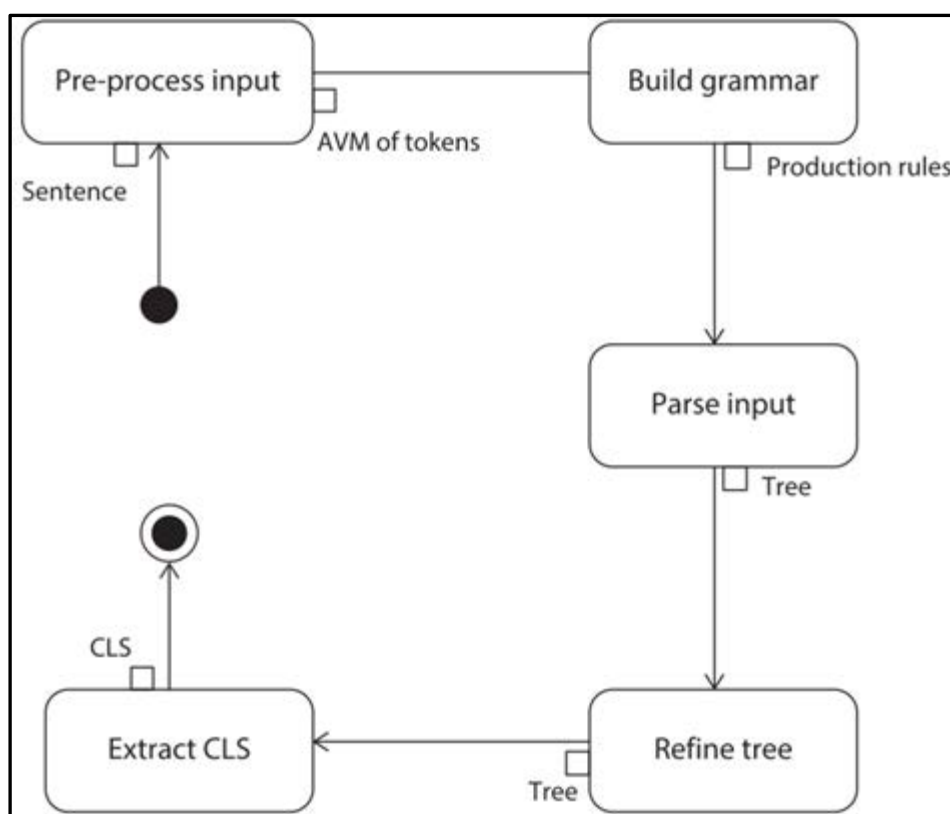
Figure 9. The architecture of ARTEMIS (Periñán Pascual & Arcas-Túnez, 2014b)

This is achieved by means of FunGramKB's complex architecture (see *Figure 10* below), made up of three independent but interrelated knowledge levels or modules (Periñán Pascual & Arcas-Túnez, 2007):

(i)   A lexical level, consisting of the *Lexicon*, which stores morpho-syntactic and collocational information about lexical units, and the *Morphicon*, which helps the system to handle cases of inflectional morphology.

(ii)   A grammatical level, which encapsulates the *Grammaticon*, which stores the constructional schemata.

(iii) A conceptual level, which consists of:

   a. An *Ontology* presented as a hierarchical catalogue of the concepts that a person has in mind.

b. A *Cognicon*, which stores procedural knowledge by means of scripts, i.e. schemata in which a sequence of stereotypical actions is organized on the basis of temporal continuity.

c. An *Onomasticon*, which stores information about instances of entities and events, such as Bill Gates or 9/11.
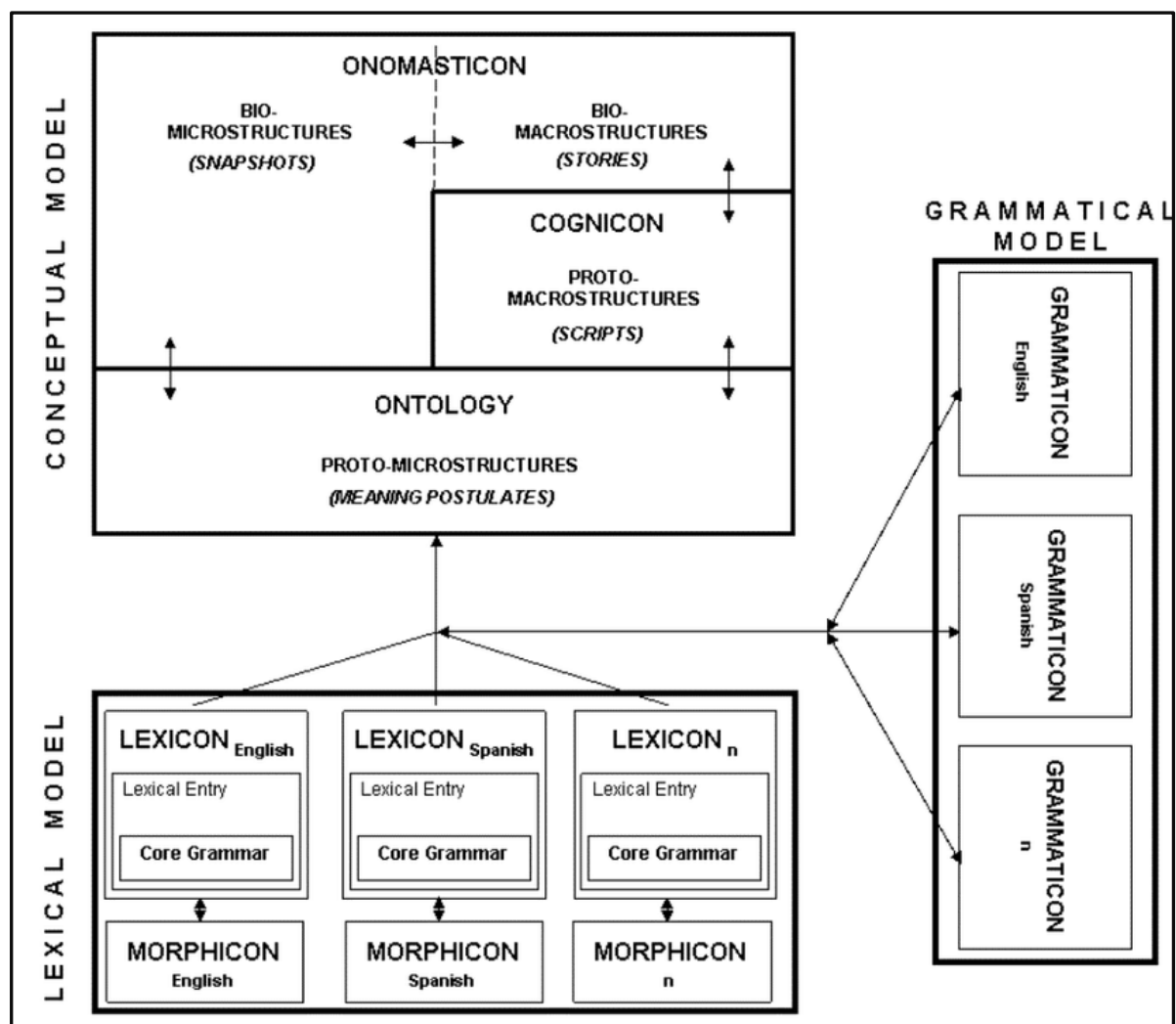
Figure 10. The architecture of FunGramKB (http://www.FunGramKB.com)

The following section offers a brief description of the grammatical module, and explains how discourse constructions are incorporated into FunGramKB.

7.2 The FunGramKB Grammaticon

The *Grammaticon* is the module that stores the constructional schemata of the LCM, a repository of all the constructions so far identified. Since constructions differ across languages, this *Grammaticon* is different for every language (see *Figure 10* above). As mentioned in chapter 2 of this dissertation, the LCM distinguishes four different types of constructions: argument structure constructions (Level 1), implicational constructions (Level 2), illocutionary constructions (Level 3), and discourse structure constructions (Level 4). These four types of constructions are represented in the FunGramKB *Grammaticon* in four different layers, as represented in *Figure 11* below: *L1-Constructicon, L2-Constructicon, L3-Constructicon,* and *L4-Constructicon.*

Figure 11. The Grammaticon in FunGramKB

So far, only the *L1-Constructicon* has been fully developed in the FunGramKB *Grammaticon*, with some partial work on the *L2-Constructicon* and the *L3-Constructicon*[42]. This is consistent with the fact that most of the work carried out in the LCM has concentrated on the theoretical development of argument structure constructions (Galera Masegosa & Ruiz De Mendoza Ibáñez, 2012; Luzondo Oyón, 2014; Peña Cervel, 2009; Ruiz De Mendoza Ibáñez, 2013; Ruiz De Mendoza Ibáñez & Luzondo Oyón, 2016; Ruiz De Mendoza Ibáñez & Mairal Usón, 2011). Other levels have been treated to a much smaller extent with most of the work being programmatic (e.g. Baicchi, 2011, 2015, Del Campo, 2011, 2012, 2013; Gonzálvez & Ruiz De Mendoza, 2011; Ruiz De Mendoza & Baicchi, 2007 for illocution; Ruiz de Mendoza Ibáñez, 2015 for implicature and; Ruiz De Mendoza Ibáñez & Gómez-González, 2014 for discourse) This has resulted in some isolated representations of levels 2 and 3 idiomatic constructions in the FunGramKB *Grammaticon* (Galera Masegosa, 2013), while the representation of discourse constructions in FunGramKB has been ignored up to now, leaving the *L4-Constructicon* empty.

After this brief introduction to the FunGramKB architecture and its Grammaticon, section 7.3 below describes how discourse constructions could be approached within the computational environment of FunGramKB, and how the L4-Constructicon could be populated with the constructions distinguished in the previous chapters.

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[42]Detailed representation of *L1-constructions* can be found in Luzondo Oyón (2011) and Jiménez Briones and Luzondo Oyón (2011).

7.3 The Level-4 Constructicon in FunGramKB

In FunGramKB, the constructional schemata that represents discourse constructions is stored within the *L4-Constructicon*. Unlike argument-structure constructions, discourse constructions have both fixed and variable elements. Fixed elements are either discourse markers or conjunctions that code the semantic connection between two elements, and therefore represent the essence of the discourse construction in question. These fixed elements help ARTEMIS in the identification of a given construction as idiomatic. The meanings these constructions profile is represented in COREL, which allows for their computational treatment.

However, this automatic classification of discourse relations is certainly not an easy task to perform. Even in the presence of an explicit discourse connective, the connective might be ambiguous and have several senses. For example, *since* can be used to signal either a temporal or a contingency relation.

(1) They have not spoken to each other **since** they argued last fall. (Temporal)

(2) I assumed you were not coming **since** you never replied to the invitation. (Causal)

Since implicit relations are presumably harder to recognize automatically, the larger their proportion, the more difficult the overall prediction of discourse relations arising from them. The more ambiguous discourse connectives are, the more difficult it is to automatically decide which discourse relation is expressed in a given sentence, even in the presence of a connective (Pitler et al., 2008).

In turn, the variable elements that are linked by the connector are represented by the symbol (S). This symbol indicates a sentence that is equivalent to a proposition at

the conceptual level. In order to fill this variable information, ARTEMIS retrieves the necessary information from the *Lexicon* and from the *L1*, *L2* and *L3-Constructicons*.

Nevertheless, the FunGramKB base is still limited, since it does not allow to describe in computational terms all the subtleties in meaning that are part of a fine-grained linguistic analysis, as will be discussed below. For example, in our analysis, we have identified three big groups of constructions (*complementary alternation, complementary contrastive* and *contrast* constructions) and different subgroups of constructions within these families. Within each of these subgroups, constructions were fully analyzed in chapters 4, 5 and 6 of the present dissertation. The details of this categorization and full analysis had to be largely discarded for FunGramKB representation. Instead, we elaborated a list of descriptors for the English *L4-Constructicon* that were equivalent to the constructional profiles we identified in our linguistic descriptions. Such descriptors were labelled according to the names assigned to each constructional profile (see *Table 10* below).

	NAME	DESCRIPTION	REALIZATIONS
COMPLEMENTARY ALTERNATION DISCOURSE CONSTRUCTIONS	Neutral complementary alternation	They link two or more negative alternatives that are equally likely/unlikely to happen. These alternatives complement each other; the second adds to the first on the basis of a subjective speaker's judgment.	Neither/Not [S] nor [S]
	Reinforcement	They add extra reinforcing information about the state of affairs that the previous statement applies to, thus making the extra part of the construction (Y) surprising because it was not expected/likely to happen.	[S] even [S] [S] in fact [S]
	Probability judgement alternation	They emphasize that one state of affairs is or should be less likely to happen than another state of affairs due to their specific characteristics that make one of the elements less probable to happen according to the given circumstances.	[S] leave alone [S] [S] let alone [S] [S] needless to say [S] [S] never mind [S] [S] not to mention [S] Not [S] even less [S] Not [S] Much less [S] Not [S] still less [S] Not/never/ever [S] to say nothing of [S]
	Enhancing	They emphasize that what has just been said could be greater or more surprising than what has just been suggested.	[S] not to mention [S] Not [S] not to mention [S] Not [S] not even [S] Not [S] to say nothing of [S] Never [S] to say nothing of [S] [S] go further [S]	[S] let alone [S] [S] never mind [S] [S] not to say [S] [S] still [S] [S] to say nothing of [S] [S] to say the least [S]
	Demonstrative alternation constructions.	They add more information or examples about the X part of the construction in order to emphasize that something is self-evident.	[S] to say nothing of [S] Not [S] to say nothing of [S] [S] it goes without saying that [S] [S] let alone [S] [S] needless to say [S] [S] never mind [S] [S] not to mention [S]

NAME	DESCRIPTION	REALIZATIONS	
Neutral complementary contrastive	They present a state of affairs from a different but complementary point of view to what was mentioned or expected. The second idea may in this manner contradict previously raised expectations.	Not so much [S] as [S] [S] is more M than N [S] on the other hand [S]	[S] while [S] [S] would rather [S] (than [S])
Concessive complementary contrastive	They suggest that the second point is more important than the first, despite whatever has been or will be said.	Much as [S], [S] [S] still [S] [S] but still [S] [S] against [S] [S] all the same [S] [S] although [S] [S] anyhow [S] [S] anyway [S] [S] at any rate [S] [S] but then [S] [S] despite [S] [S] even if [S] [S] even so [S] [S] even then/now [S]	[S] for all [S] [S] however [S] [S] in any case/event [S] [S] in spite of [S] [S] nevertheless [S] [S] nonetheless [S] [S] notwithstanding [S] [S] regardless [S] [S] still [S] [S] though [S] [S] while admitting [S] [S] while [S] [S] yet [S]
Correcting complementary contrastive	They correct or modifies the content elements of an utterance, whatever its illocutionary force, by changing all or part of it or by specifying it.	[S] anyhow [S] [S] anyway [S] [S] at any rate [S] [S] at least [S]	[S] even more [S] than [S] [S] howbeit [S] [S] on/to the contrary [S] [S] yet [S]
Topic changing complementary contrastive	They change the topic or returns to a previous topic in the discourse, while accepting what has been previously stated. These constructions help the speaker to avoid talking about a particular condition and direct the conversation to a different aspect within the same topic of conversation.	Leaving aside [S], [S] [S] anyway [S] [S] be that as it may [S] [S] in any case/event [S] [S] never mind [S]	
Topic avoiding constructions	They avoid discussing or considering a particular subject or aspect of something.	Leaving aside [S], [S] [S] but [S] [S] never mind [S]	
Refusal-apology	They introduce a reply to someone to indicate reluctance, disbelief, refusal, or an apology. What they transmit is that whatever the circumstances contained in the first variable (which hold), the speaker will act in the way specified in the second variable.	Excuse me but [S] I'm sorry but [S] [S] all the same [S] [S] anyhow [S] [S] anyway [S]	

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	NAME	DESCRIPTION	REALIZATIONS
CONTRAST CONSTRUCTIONS	**Contraposition|**	They express at least a relevant opposition between two states of affairs or attributes of entities due to the existing differences between them. This opposition may result in one of the states of affairs being favored over the other.	Clashing with [S], [S] Contrasting [S], [S] Opposing [S], [S] Opposite to [S], [S] [S] (but) not [S] [S] as against [S] [S] as opposed to [S] [S] conversely [S] [S] different from [S] [S] distinct from [S]	[S] however [S] [S] in opposition to [S] [S] by contrast [S] [S] in contrast [S] [S] per contra [S] [S] unlike [S] [S] versus [S] [S] whereas [S] [S] while/whilst [S] [S] yet [S]
	Exception contrast	They express that what is contained in the second variable of the construction is the only exception that confirms that the circumstances in the first variable are true.	No [S] other than [S] There's no [S] like [S] [S] besides [S]	
	Alternative-contrastive contrast	They bring to the fore alternatives that contrast with each other. This contrast is generated by means of the existing alternation between what is contained in the first and the second variables of the construction.	(Either) [S] or [S] [S] alternatively [S]	
	Disagreement contrast	They express disagreement or a different opinion which may result in the correction of a previous statement or conventional assumption with new, real and verifiable facts.	Disagreeing with [S], [S] I'm sorry but [S] Opposing [S], [S] [S] against [S] [S] at odds with [S] [S] contradicting [S] [S] contrary to [S]	[S] counter to [S] [S] in opposition to [S] [S] inconsistent with [S] [S] is not [S] but Z [S] on/to the contrary [S]

Table 10. Representation of the constructional schemata in FunGramKB

This *Table* has been elaborated following the way the semantic information of discourse constructions is stored in the FunGramKB interface. For each construction, the interface requires interface developers to fill three information boxes: description, realizations, and the COREL schema. The description part refers to the conceptual description of the meaning a given construction profiles, while the realizations box stores all the construction that profile the same meaning. In turn, the COREL schema allows this meaning to be expressed computationally so that the machine can understand it. *Figure 12* below presents the interface of the English *L4-Constructicon.*

Figure 12. The L4-Constructicon

The editor of the interface simply needs to select a construction group from the left column, and the platform will display the information corresponding to that group of constructions in the boxes on the right. In *Figure 12* above, the description box

represents the conceptual meaning of *contrapositions discourse* constructions, and lists all the constructions that share the same conceptual meaning in the realizations box. The COREL schema is the same for all the realizations of this subgroup of constructions.

This way of presenting the information allows us to quickly identify the constructions that are used with the same purpose, when in some cases these constructions had never been related in the literature. However, the COREL metalanguage imposes its own semantics and syntax (Mairal Usón & Periñán Pascual, 2010a), and employs a number of conceptual units, variables, reasoning operators, aspectual operators, logical operators, etc. to construct meaning (Jiménez Briones, 2017). This has forced us to discard, in some cases, the richest part of the linguistic analysis that studied the differences between constructions that seemed equivalent. The system is equally unable to capture all the details that the linguistic analysis reveals for each of the realizations within the same subgroup of constructions. Therefore, we agree with Jiménez Briones (2017) that, notwithstanding the advantages of using a metalanguage, the expressive power of a formal language like COREL is limited, and does not allow for the expression of the same meaning nuances as natural language. The following lines describe the laborious process of codifying through COREL the discourse constructions in *Table 10* above, with a view to integrating them into the FunGramKB *Grammaticon*. They will unveil the specific requirements of each constructional type, and list the challenges faced in the process, providing proposals for future advancements in computational approaches to language processing.

7.3.1 Neutral complementary alternation constructions

As discussed in chapter 4, section 4.1, *neutral complementary alternation* constructions link two negative alternatives that complement each other, as in *He has*

not resigned, nor has he been sacked. Thus, these constructions present a speaker that denies something and that then adds more information that complements what has been previously stated. The result was the COREL representation in (3), which encodes the following information: the speaker (x1) says something (x4) to the hearer (x3) that he or she believes is not (n) true (x5) (i.e. he denies something) in a specific context. Then, the speaker (x1) says something else (x6) to the same hearer (x3) that is neither true (x7) (i.e. he denies something else) in the same context.

(3)

+((e1: +SAY_00 (x1: <SPEAKER>)Theme (x2)Referent (x3: <HEARER>)Goal)(e2: +THINK_00 (x1)Theme (x4: (e3: n +BE_01 (x2)Theme (x5: +TRUE_00)Attribute))Referent (f1)Scene))

+((e4: +SAY_00 (x1)Theme (x6)Referent (x3)Goal)(e5: +THINK_00 (x1)Theme (x7: (e6: n +BE_01 (x6)Theme (x7: +TRUE_00)Attribute))Referent (f1)Scene))

While it is possible to capture the basic semantic layout of this construction (i.e. the idea that the speaker is not going to do one thing and will not do another) using this COREL schema, the machine cannot detect whether this construction is an idiomatic Level 4 construction or simply a Level 1 argument structure construction. Let us take for example, the sentence *I won't drink that wine nor pay for it.* At discourse level, what is interesting about this configuration is not that the speaker is not going to perform one action or the other, but the overall meaning effect whereby the speaker's negative attitude towards a state of affairs is intensified. The machine is unable to understand this next degree of subjectivity, the implication that the speaker is completely disgusted about the wine. Equally, in the sentence *He has not resigned,*

nor has he been sacked (Google[43]), uttered in a context in which the speaker expected the subject in question to resign or to be fired, what the speaker means is that he is not happy about the fact that neither event occurred and that the person continues working in the same company. In order to understand these constructions as Level 4 configurations, it would be necessary to apply a source-in-target high level metonymy of the kind proposed by the LCM by which two particular examples of things that the speaker is not willing to do (regarding the wine, for example) give access to the inference that the speaker is really disgusted about the situation in question, as represented in *Figure 13* below.
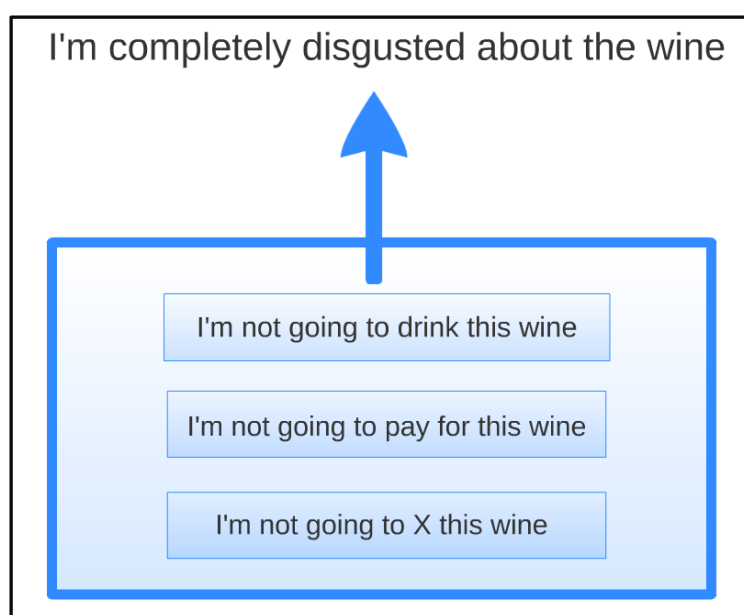
*Figure 13. Source-in-target high level metonymy for "*I'm not going to drink that wine nor pay for it*"*

7.3.2 Reinforcement constructions

Reinforcement constructions are used to add extra reinforcing information about the state of affairs that a previous statement applies to, thus making the extra part of

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[43]http://www.telegraph.co.uk/sport/football/teams/newcastle-united/2670409/Kevin-Keegan-has-not-resigned-but-talks-with-Newcastle-board-continue-say-LMA-Football.html last accessed 25/04/2017, 20:00.

the construction surprising because it was not expected or likely to happen, as in *All the time I was there, I stayed inside the house. In fact, I never left my room* (Google[44]) or *The hotel had everything. There was even a swimming pool* (CCD). These constructions did not present any problems at the time of translating them into a computer-readable format, since FunGramKB can codify the effect of surprise on the hearer. As shown in the COREL schema in (4), these constructions codify a state of affairs where a speaker (*x1*) says something (*x2*) to a hearer (*x3*) in a given context, and then the same speaker (*x1*) adds something else (*x4*) that can surprise the hearer (*x3*) in this same context (*f1*).

(4)

+(e1: +SAY_00 (x1: <SPEAKER>)Theme (x2)Referent (x3: <HEARER>)Goal (f1)Scene))

+((e2: +SAY_00 (x1)Theme (x4)Referent (x3)Goal)(e3: pos +SURPRISE_00 (x4)Agent (x3)Theme) (f1)Scene))

7.3.3 Probability judgement alternation constructions

Probability judgement alternation constructions help speakers emphasize that one state of affairs is or should be less likely to happen than another state of affairs, as in *I wouldn't call Peter, let alone invite him to my house* (altered example[45]). In this example, the speaker expresses that in an imaginary scenario where he would be celebrating a party in his house and had to call his guests to invite them, he would probably not call Peter, and it would be less probable that he would invite him to his

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[44]http://www.stuff.co.nz/world/asia/6445106/Al-Qaedas-SE-Asia-links-fraying last accessed 25/04/2017, 20:04.
[45]Original example: "I wouldn't even call him, let alone invite him to my house". Available online at http://www.proz.com/kudoz/english/linguistics/357842-not_to_mention_vs_let_alone.html fraying last accessed 25/04/2017, 20:08.

house. The conceptual representation of this type of constructions poses three important and interconnected challenges that FunGramKB developers need to face in order to provide more accurate formalizations of discourse constructions: the expression of comparison, the expression of subjective probability and the creation of hypothetical or imaginary scenarios.

To begin with, even though the possibility of using COREL to express comparisons was already suggested in one of the foundational papers of this approach (Mairal Usón & Periñán Pascual, 2010a), FunGramKB has so far not been able to express comparison, a basic operation in human language. Therefore, it is not possible to represent in computational terms that an event is more or less likely to occur than another. Our proposal to solve this gap is to use the intensifier marker *very* (*m*) in relation to a probability operator (*prob*). Thus, the machine should be able to codify the implication that a given state of affairs is likely, as opposed to another state of affairs being *very* likely to happen, as captured by the COREL schema in (5).

(5)

+(e1: +SAY_00 (x1: <SPEAKER>)Theme (x2: (e2: prob n +DO_00 (x4: <EVENT>)Theme))Referent (x3)Goal (f1)Scene)

+(e3: +SAY_00 (x1)Theme (x5: (e4: m prob n +DO_00 (x6: <EVENT>)Theme))Referent (x3)Goal (f1)Scene)

Translated into plain language, the first proposition in (5) presents a speaker (*x1*) expressing that it is not probable (i.e. operators *prob* for probability and *n* for negation) that he/she might perform a given action or taken part in a given event (*x4*) within a certain context (*f1*) (i.e. it is not likely that something will take place). Besides, the second proposition indicates that it is very (*m*) likely (*prob*) that the speaker (*x1*) will

not be involved in another action or event (*x6*). That is, this second action or event is less probable to take place than the first. All in all, this strategy is not enough to express all the different types of comparisons that speakers can generate. For this reason, we strongly believe that FunGramKB should develop a new comparison operator.

Besides, FunGramKB is unable to set up possible or hypothetical worlds that would allow the machine to understand conditional examples such as *I wouldn't call Peter, let alone invite him to my house*. Indeed, conditional logic is part of natural language, but to our knowledge, there is as yet no logical system that can represent it. The creation of those possible worlds is also a prerequisite to understand constructions based on the idea of probability. Notwithstanding these difficulties, Ozaki and Bekki (2011) have made important advancements in new logic systems extending existing conditional logics that FunGramKB developers should carefully take into consideration.

In turn, in the sentence *I won't call Peter, let alone invite him to my house*, the probability that the speaker will call Peter is 0, because he has no intention to call him in the near future. But the probability of Peter being invited to the speaker's house is even lower on the same scale (i.e. below 0). Humans have the mental flexibility to understand cases of *subjective* probability that emerge from their emotional reactions, and it is precisely on *subjective* probability on which *probability judgment alternation* constructions are based. But machines are only able to understand *objective* probability, always expressed in positive terms, that is, machines cannot understand that something is less probable to occur than impossible. Besides, understanding subjective probability requires mental simulation. Only if FunGramKB were capable of working on the basis of possible worlds, like the human mind, would it be possible for it to engage in subjective probability reasoning.

Therefore, COREL is not flexible enough to capture such meaning implications, and for this reason, it has not been possible to provide a faithful computational account of *probability judgement alternation* constructions for FunGramKB.

7.3.4 Enhancing constructions

Enhancing constructions are used to emphasize that what has just been said could be greater or more surprising than what has just been suggested, as in *Until the accident, I led the very busy, not to say frantic, lifestyle of a criminal lawyer* (Google[46]).

Again, these constructions are based on the comparison between two different elements (i.e. busy as opposed to frantic) that we have been unable to codify through COREL. Equally, we have been unable to express the idea that what the speaker really thinks is different from what was said. Thus, we must admit that the semantic content in the COREL schema below for *enhancing* constructions does not fully represent the meaning profiled by these constructions (see chapter 4, section 4.4).

(6)

+(e1:   +SAY_00   (x1:   <SPEAKER>)Theme   (x2)Referent   (x3: <HEARER>)Goal (f1)Scene)

+(e2: +SAY_00 (x1)Theme (x4)Referent (x3)Goal (f1)Scene)

+(e3:   +BE_00   (x4)Referent   (x5:   (e4:   cert   +KNOW_00   (x1)Theme (x4)Referent))Referent)

Translated into natural language, these predications express that the speaker (*x1*) says something (*x2*) to the hearer (*x3*) in a given context. Then, the speaker says

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[46]https://books.google.es/books?isbn=0553904353 last accessed 25/04/2017, 20:17.

something else (*x4*) to the hearer in the same context, and this something else (*x4*) is what the speaker thinks (or knows) (*x5*). Therefore, the connection between the first and the second item, which is what makes this construction a Level 4 configuration, is lost in the COREL translation.

7.3.5 Demonstrative alternation constructions

Demonstrative alternation constructions are used to add more information or examples about the first part of the construction to emphasize that something is self-evident or obvious as a result of the comparison between the first and the second part of the constructions, as in *A free fall from 130 feet* will *kill you, not to mention from 13.000* (created example for explanation) or *With this knee injury I can't walk, never mind run* (Google[47])*.*

Once again, we are not able to compare two different states of affairs, so our COREL representation is limited and does not fully express the semantic content of the constructions in question. Nevertheless, we propose the propositions in (7) as a first step to representing these constructions:

(7)

+(e1: +DO_00 (x1: <EVENT>)Theme (f1: (e2: cert +DO_00 (x2: <EVENT>)Theme))Result)

+(e3: +WANT_00 (x3: <SPEAKER>)Theme (x4: (e4: +KNOW_00 (x5: <HEARER>)Theme (x6: (e5: +BE_01 (x2)Theme (x7: +CLEAR_00)Attribute))Referent))Referent)

The first predication in (7) expresses that an event (*x1*) takes place, and that as a result, it is obvious (*cert*) that another event (*x2*) takes place too. In the second predication, the speaker (*x3*) wants the hearer (*x5*) to know that the event in (*x2*) is obvious, since *obvious* is a lexical unit that belongs to the concept *+CLEAR_00*.

7.3.6 Neutral complementary contrastive constructions

Neutral complementary contrastive constructions present a state of affairs from a different but complementary point of view to what was previously mentioned or expected. According to the data in our corpus, the constructions that serve this purpose contain either the connector *on the other hand* or *while* in examples like *Her creations, while annoying, are very impressive!* (Google[48]).

To codify this type of linguistic expressions through COREL, it has been necessary to simplify them to their minimal semantic content. Thus, the COREL schema in (8) represents a speaker (*x1*) that talks to a hearer (*x3*) about a referent (*x4*) that has a given characteristic or attribute (*x5*) in a certain context. Then, the same speaker mentions that the previous referent (*x4*) has another attribute or characteristic (*x6*) and that both attributes or features (*x5* and *x6*) are very different from each other (i.e. they are complementary):

(8)

+(e1: +SAY_00 (x1: <SPEAKER>)Theme (x2: (e2: +BE_01 (x4)Theme (x5)Attribute))Referent (x3: <HEARER>)Goal) (f1)Scene)

+(e3: +SAY_00 (x1)Theme (x2: (e4: +BE_01 (x4)Theme (x6)Attribute))Referent (x3: <HEARER>)Goal) (f1)Scene)

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[48]https://ouralaskalife.com/adopt/houdini/ last accessed 25/04/2017, 20:32.

+(e5: +BE_01 (x5)Theme (x6)Referent (x7: m+DIFFERENT_00)Attribute (f1)Scene)

7.3.7 Concessive complementary contrastive constructions

These constructions suggest that a second idea is more important than the first, despite whatever has been or will be said, as in *I realize she can be very annoying, but all the same I think you should apologize for losing your temper with her* (Google[49]) or *Costly and time-consuming, it was nonetheless essential* (altered example[50]). These constructions represent the biggest subgroup of the family of *complementary contrastive* constructions in English, and therefore, FunGramKB should be able to codify them. However, COREL does not have any concession markers whatsoever, necessary to represent these constructions computationally. Moreover, for the sake of computational tractability, we were forced to reduce to a minimum the description of the linguistic details profiled by these constructions. Bearing these limitations in mind, the COREL schema in (9) is the best we could provide for these configurations.

(9)

+(e1: pos +DO_00 (x1)Theme (x2)Referent (f1: (e2: +EXIST_00 (x3: +STATE_00)Theme))Reason (f2: (e3: n +DO_00 (x1)Theme (x2)Referent))Result)

This representation implies that there is a state of affairs (x3) such that this state of affairs should allow something (*x1*) to be done or to happen. But the result (*x2*) is that (*x1*) is not done or does not happen.

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[49]https://forum.wordreference.com/threads/all-the-same.112691/ last accessed 25/04/2017, 20:34.
[50]Original example: "This is frequently a difficult and time-consuming task, which many clients find very challenging, but is nonetheless essential". Available online at https://books.google.es/books?isbn=1118493699 last accessed 25/04/2017, 21:12.

7.3.8 Correcting complementary contrastive constructions

As their name indicates, these constructions correct or modify the content elements of an utterance by changing all or part of it or by specifying it, as in *Come early evening, after tea time, at any rate* (Google[51]). For these constructions, we propose the combination of the two propositions below:

(10)

+(e1: +SAY_00 (x1:<SPEAKER>)Theme (x2: +TOPIC_00)Referent (x3: <HEARER>)Goal (f1)Scene)

+(e2: +CHANGE_00 (x1)Theme (x2)Referent (f1)Scene)

This COREL schema expresses in the first proposition *e1* that a speaker (*x1*) talks about a topic (*x2*) with the hearer (*x3*) in a given context (*f1*). In the second proposition, *e2*, the speaker changes the topic (*x2*) in the same context.

However, it would be necessary to include a third proposition to formalize the interconnection between the first and the second proposition in order to fully codify the meaning of these configurations. That is, FunGramKB should be able to express temporal concepts such as 'and then', 'after', etc. to understand that the second proposition necessarily occurs after the first, which would allow the machine to understand these constructions as Level 4 configurations.

7.3.9 Topic changing complementary contrastive constructions

These constructions help speakers change the topic that is being discussed in conversation using markers such as *anyway* or *be that as it may*, among others (see chapter 5, section 4). Accordingly, the COREL schema below represents a situation

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where somebody (*x1*) says something (*x2*) and somebody else (*x3*) accepts or agrees with what has been said (*x2*), but changes the conversation topic.

(11)

+(e1: +SAY_00 (x1)Theme (x2)Referent (x3: <SPEAKER>)Goal (f1)Scene)

+(e2: +AGREE_00 (x3)Theme (x2)Referent (x1)Goal (f1)Scene)

+(e3: +CHANGE_00 (x3)Theme (x2)Referent (f1)Scene)

7.3.10 Topic avoiding constructions

Topic avoiding constructions are very similar to *topic changing* constructions above. But instead of changing the topic of conversation, the speakers openly avoid discussing or considering a particular subject using markers such as *leaving aside* or *never mind* as in *Leaving aside a discussion of the disadvantages, let's turn to the advantages* (created example for the purpose of explanation)*.* What these constructions imply is that the speaker does not want to talk about something, as the COREL schema below represents:

(12)

+(e1: n +WANT_00 (x1: <SPEAKER>)Theme (x2: (e2: +SAY_00 (x1)Theme (x3)Referent (x4: <HEARER>)Goal))Referent

The COREL schema in (12) reads as follows: there is a speaker (*x1*) who does not want a particular thing (*x2*). The thing the speaker does not want is saying something (*x3*) to the hearer (*x4*). That is, he does not want to talk to the hearer about a given subject.

7.3.11 Refusal-apology constructions

Refusal-apology constructions introduce a reply to someone to indicate reluctance, refusal, or an apology. What they convey is the idea that whatever the circumstances, the speaker will reject the hearer's offer or demand in a polite way, as in *That's very kind of you. But I'm terribly busy on Saturdays* (Google[52]) or *I'm sorry, but she's not in at the moment* (CCD).

Trying to reach a compromise between what the machine could understand and the meaning these constructions profile, we believe that FunGramKB should at least be able to describe a state of affairs where a speaker offers or demands a given good or service and another speaker apologizes and does not fulfill the first speaker's request or does not accept his/her offer. However, the concept apologize does not exist in FunGramKB, and if we included the concepts of offering and asking in the COREL formulation, terminal and basic concepts would be mixed in the computational expression. Be that as it may, we propose the proposition in (13) as a tentative approximation to the computational codification for *refusal-apology* constructions.

(13)

+(e1: +SAY_00 (x1: <HEARER>)Theme (x2: +SORRY_00)Referent (x3: <SPEAKER>)Goal (f1: (e2: n +DO_00 (x1)Theme (x5: (e3: +WANT_00 (x3)Theme (x4)Referent))Referent)Reason)

The translation of this schema into plain language reads as follows: the hearer (*x1*) says he is sorry (*x2*) to the speaker (*x3*) because he/she will not (*n*) do (*x5*) what the speaker wants (*x4*).

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[52]https://books.google.es/books?isbn=148040814X last accessed 25/04/2017, 20:44.

7.3.12 Evaluative constructions

Evaluative constructions merge an expected state of affairs with the actual state of affairs, contrary or different from the former, often resulting in the speaker's evaluation of the situation, as in *Some living composers are more dead than alive* (Google[53]). These constructions are based on the speaker's subjective evaluation of the situation in question. As discussed above, COREL is not able to codify subjectivity. A possible solution to this obstacle could be the use of the basic concept +THINK_00 to suggest that what has been said is what the speaker really thinks. However, COREL is not flexible enough to capture the fine-grained meaning implications of *evaluative* constructions, so the COREL schema below is the most faithful computational representation of *evaluative* constructions we could provide.

(14)

+(e1: +SAY_00 (x1: <SPEAKER>)Theme (x2)Referent (x3: <HEARER>)Goal (f1)Scene)

+((e2: +SAY_00 (x1)Theme (x4)Referent (x3)Goal)(e3: +THINK_00 (x1)Theme (x4: (e4: +BE_01 (x4)Theme (x2)Referent (x5: +DIFFERENT_00)Attribute))Referent (f1)Scene))

This schema has two propositions: In the first, the speaker (*x1*) says something (*x2*) to the hearer (*x3*) in a given context (*f1*), whereas in the second, the speaker says something (*x4*) to the hearer (*x3*) that he thinks is different (*x5*) from what has been said in the same context.

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[53]https://books.google.es/books?isbn=1580465099 last accessed 25/04/2017, 20:47.

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7.3.13 Contraposition constructions

Contraposition constructions express at least a relevant opposition between two states of affairs or attributes of entities due to the differences between them. Markers such as *unlike, contrasting, opposite to, conversely,* etc. are the fixed elements that allow these configurations to profile this meaning, as in *Unlike Dalton, Mendel was not appreciated until after his death* (Google[54])*.*

As mentioned above, COREL is not able to codify the comparison operation, crucial in the semantic content of these configurations. Thus, it has been impossible to fully codify computationally the meaning these constructions profile. COREL can, however, express that a speaker says something that he/she later disagrees with, because he/she says something different from what was previously said, as seen in the COREL representation below:

(15)

+(e1: +SAY_00 (x1: <SPEAKER>)Theme (x2)Referent (x3: <HEARER>)Goal (f1)Scene)

+((e2: +SAY_00 (x1)Theme (x4)Referent (x3)Goal)(e3: (e4: +BE_01 (x4)Theme (x2)Referent (x5: +DIFFERENT_00)Attribute) (f1)Scene))

However, this schema is only distinguished from *evaluative* constructions in that it does not contain the subjective element +THINK_00, which could lead the machine to wrong interpretations. We believe this is an important issue that future developments on the topic should seriously undertake.

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[54]www.dixinary.com/sentences/Mendel last accessed 25/04/2017, 20:50.

7.3.14 Exception contrast constructions

As their name indicates, these constructions express that what is contained in the second variable of the construction is the only exception that confirms that the circumstances in the first variable are true, as in *I wasn't guilty of doing anything besides not telling on her* (created example for clarification)*.

To create a suitable COREL schema for these constructions, we had to reformulate their description in words that the machine could understand. Thus, these constructions suggest that something (*x1*) is often true (*x2*), in such a way that people (*x3*) think that it is always true by mistake. The second proposition in (16) indicates that one situation exists (*x5*) where it (*x1*) is not true (*x2*).

(16)

+(e1: +BE_01 (x1)Theme (x2: +TRUE_00)Attribute (f1: +OFTEN_00)Frequency (f1: (e2: +KNOW_00 (x3: +PEOPLE_00)Theme (x4: (e3: +BE_01 (x1)Theme (x2)Attribute (f2: m +OFTEN_00)Frequency (f3: +MISTAKE_00)Manner))Referent))Result)

+(e4: +EXIST_00 (x5: 1 +STATE_00)Theme (f4: (e5: n +BE_01 (x1)Theme (x2)Attribute))Time)

However, this definition poses two significant difficulties. First, COREL is not able to describe temporal dimensions such as 'always'. Instead, we have opted for using a quantifier operator *m* ('very') linked to the concept +OFTEN to express that something occurs very often. Second, but just as important, we are afraid that the machine could get confused at negating something that had previously been affirmed, or at affirming that something is "frequent" to later declare that it is "very frequent".

7.3.15 Alternative-contrastive constructions

These constructions bring to the fore alternatives that contrast with each other, as in *It doesn't matter whether you win or lose* (Google[55])*.* As simple as this description may seem, it has been impossible to fully represent it in computational terms, since COREL does not allow us to represent hypothetical scenarios presenting different alternatives at the same time, and it does not have any comparison operators either. With these challenges in mind, we propose the COREL schema in (17) as an approximation to the meaning these constructions profile:

(17)

+(e1: +BE_01 (x1)Theme (x2: +POSSIBLE_00)Attribute)(e2: n +BE_01 (x1)Theme (x2: +IMPORTANT_00)Attribute))

+((e3: +BE_01 (x3)Theme (x2)Attribute)(e4: n +BE_01 (x3)Theme (x2: +IMPORTANT_00)Attribute))

The first proposition (*e1*) presents something (*x1*) that it is possible and it is not (*n*) important (*x2*). The second proposition (*e3*) presents something else (*x3*) that is also possible, but is equally unimportant.

7.3.16 Disagreement constructions

As their name indicates, these constructions are used to express disagreement or a different opinion which may result in the correction of a previous statement or conventional assumption with new data, as in *Contradicting conventional wisdom, adult human brain and heart cells can divide* (COCA, 2011)*.* The codification of these constructions does not seem to cause any major difficulty.

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[55]http://boardofwisdom.com/togo/Quotes/ShowQuote?msgid=546598 last accessed 25/04/2017, 20:53.

(18)

+(e1: n +AGREE_00 (x1: <SPEAKER>)Theme (x2)Referent (x3: <HEARER>)Goal (f1)Scene)

+(e2: +SAY_00 (x1)Theme (x4: m +INFORMATION_00)Referent (x3)Goal) (e3: +BE_01 (x4)Theme (+TRUE_00)Attribute (f1)Scene))

The first proposition (*e1*) above expresses that the speaker (*x1*) does not agree with the hearer (*x3*) in a context. The second proposition (*e2*) codifies the fact that the speaker (*x1*) can give more (*m*) real information *(+TRUE_00)* in this context that may, as a consequence, prove that the hearer (*x3*) was wrong in the first place.

7.4 Final considerations

This chapter has laid the foundation for the computational treatment of a group of constructions at discourse level within FunGramKB by discussing crucial computational implementation requirements. To the best of our knowledge, no such approach has been undertaken by other computational systems for NLP.

As detailed throughout the chapter, FunGramKB has explicit mechanisms that make this knowledge base more suitable for language processing than the rest of available computational models (e.g. Embodied Constructional Grammar, Fluid Constructional Grammar, etc.). Such mechanisms are FunGramKB's *Ontology*, the COREL metalanguage employed for the codification of natural language, and its *Grammaticon*, which can in theory account for all the existing constructional schemata in language, including non-procedural knowledge and discourse structure.

However, we have found precisely in these mechanisms important deficiencies that remain unsolved and that call for further development of FunGramKB to be able to faithfully represent human thought as based on language.

Let us begin by considering the *Ontology* of FungramKB. This component connects the linguistic knowledge and conceptual knowledge with an impressive amount of descriptions and knowledge of the world stored. However, this ontological system is based on objects and referents, not on the *perception* of such objects or referents. Thus, it cannot easily assemble possible worlds where objects are no longer such objects, as is the case of conditional constructions, and in its current state of development, it is not able to understand subjectivity either.

In turn, the fact that it was possible to capture the essence of a series of discourse constructions with COREL is an indication of the effectiveness of FunGramKB's metalanguage. Nonetheless, as evidenced throughout this chapter, such a metalanguage is still limited, since it does not allow us to describe in computational terms relevant meaning implications that are revealed by the linguistic description, and in general it lacks the flexibility needed to account for the richness of perspectives involved in meaning construction by means of natural language. For example, FunGramKB should be able to express temporal concepts such as 'always', 'before', 'and then', 'after', etc. to understand that a second proposition occurs after or before another.

Another issue is the impossibility to codify through COREL a fundamental (and pervasive) cognitive operation like comparison (cf. the discussion on its ubiquity in Ruiz De Mendoza Ibáñez & Galera Masegosa, 2014). This operation simply consists in having two elements (X and Y) behaving differently in relation to a parameter, feature,

property, or state of affairs. Comparison is also essential to codify *contrast* constructions, and thus, we believe that FunGramKB should include comparison operators that would facilitate the computational process of such constructs.

Similarly, COREL restricts the ability of FunGramKB to set up possible or hypothetical worlds that would allow the machine to understand conditional logic, so central to meaning construction through natural language. For example, FunGramKB is unable to codify a sentence like *I wouldn't call Peter, let alone invite him to my house*. The creation of those possible worlds is also a prerequisite for the understanding of constructions based on the idea of probability. However, at its current stage of development, FunGramKB is not flexible enough to capture these meaning implications.

Finally, the fact that FunGramKB's *Grammaticon* is grounded in the four constructional layers of the LCM allows (at least in theory) to account for non-propositional and idiomatic constructions (such as illocutionary constructions, discourse constructions, or constructions with fixed elements such as *What's X doing Y*?), which other computational construction grammar approaches are still unable to systematize. Moreover, the LCM has developed many analytical and explanatory tools that FunGramKB could benefit from (e.g. an account of constraints on meaning construction, such as high-level metaphor and metonymy). However, the constructional component of FunGramKB is still weak, and thus, in practice it is not completely possible to do so (Luzondo Oyón & Ruiz de Mendoza, 2014).

Therefore, it is necessary to enrich the *Grammaticon* of FunGramKB, especially the part dedicated to the levels 2, 3 and 4 of the LCM and to define the whole idiomatic component of the model by using an enriched version of the COREL metalanguage.

In this sense, we see the need for FunGramKB to become more intensely constructionist in the line of the approach taken by Embodied Construction Grammar or Fluid Construction Grammar.

8

Conclusions

This final chapter presents a summary of the main findings of the present dissertation, followed by some implications for future research.

This dissertation has emphasized the advantages of examining discourse connectivity from a constructionist perspective. This has brought to the fore the role of discourse constructions in meaning construction. It has also filled an important gap in the existing research into cognitively-oriented constructionist accounts, which have mostly restricted their analyses to argument-structure constructions, with only occasional inroads into other kinds of constructions, including illocutionary constructions, to the neglect of the constructional aspects of discourse structure.

These two aims have led us to identify three constructional families that are operational at discourse level, viz. the _complementary alternation, complementary_

contrastive, and *contrast* constructions at discourse level, which we have investigated in detail. The resulting study has been made part of the discourse structure level of analysis of the Lexical Constructional Model, which explicitly recognizes the relevance of postulating a discourse-structure level of description, to be differentiated from the argument-structure, implicational, and illocutionary levels. In this connection, the present dissertation is the first contribution to the creation of a fully-fledged *Constructicon* consistent with the descriptive and explanatory mechanisms of the LCM. These mechanisms include the description of all kinds of knowledge structure in terms of profile/base relations, the organization of constructions into families based on family resemblance criteria, and the identification of constraining factors on meaning construction.

In a complementary way, this dissertation offers a proposal for the computational implementation of the three families of constructions into FunGramKB, a knowledge base designed for natural language processing. This has involved converting or adjusting our linguistic descriptions to COREL language, the metalanguage developed for world-knowledge descriptions within FunGramKB.

The dissertation has been organized into 8 chapters. Chapter 2 has provided an overview of the framework for our analyses. It summarizes the major developments in the study of discourse markers, while arguing that the various approaches do not account for regularities between the semantic (and/or pragmatic) interpretation and syntactic structure of the markers. To make up for this weakness, we argue in favor of a study along the lines of a (cognitively-oriented) Construction Grammar that motivates grammatical phenomena by relating them to the principles of cognitive modelling (including frame semantics). After comparing the most significant constructionist

approaches to language, we have defended the descriptive and explanatory superiority of the LCM over the rest of constructionist approaches.

Chapter 3 has been devoted to the corpus compilation and methodological concerns. This dissertation has opted for a combined inductive-deductive approach. This approach considers raw data, organizes them into meaningful patterns and formulates explanatory principles that are then subjected to further verification as more and more data accrue and further patterns are identified. The data have been drawn from several computerized corpora, which have been complemented with information from some of the most renowned English dictionaries. Working with dictionaries has been useful to relate sets of connectors that were comparable in meaning. We have also defended the use of Google searches when the previous sources did not offer good and quick results for the launched queries. This chapter has also addressed the adaptation for our analytical purposes of the Langackerian notions of *meaning base, profile* and *active zone*. These notions have been essential for the classification of discourse constructions. A primary finding in this research has been the confirmation that different constructions that profile the same base domain are members of the same constructional family (Iza Erviti, 2015a), and that depending on the way in which the variable elements relate, each member of the family introduces subtle changes in focal structure, resulting in changes on the overall coherence of the text. The organization of discourse constructions into families has allowed us to explain why connectors that have traditionally been treated as fully equivalent (e.g. by lexicographers) behave differently in certain contexts. This involves an advantage over previous analyses of constructional characterizations typically based on just one construction, as is the case with the well-known study of *let alone* by Fillmore et al.

(1988) or other studies like Bender and Kathol (2001) on *Just Because X Doesn't Mean Y* and Kay and Fillmore's (1999) work on *What's X Doing Y*.

Based on these theoretical foundations, the following chapters have offered a preliminary classification of *complementary alternation, complementary contrastive*, and *contrast* constructions, specifying the conditions for the use of one connector with preference over the others.

Chapter 4 has been engaged in illustrating the family of *complementary alternation* constructions. These constructions present two different states of affairs such that the second adds to the first based on a subjective speaker's judgment. These configurations can be further classified into *neutral, reinforcement, probability judgment, enhancing,* and *demonstrative alternation* constructions, depending on the angle from which they profile this common meaning. The chapter describes and exemplifies the use of each construction type in detail. This is especially done by studying the different meaning zones that each construction activates, which accounts for why certain constructions are allowed while others are blocked in apparently similar contexts.

Chapter 5 has focused on *complementary contrastive* constructions, which, in addition to conveying a contrastive meaning between the two compared segments of discourse, also feature an additive value. The identification of this constructional family is a great step forward in the study of language, since most discourse approaches simply distinguish between contrastive and additive constructions, without retaining the possibility of combining both operations into a single form. Applying the above-mentioned Langackerian notions, we have proposed a further classification of this constructional family into seven subgroups of constructions: *neutral*, *concessive*,

correcting, *topic changing*, *topic avoiding*, *refusal-apology*, and *evaluative complementary contrastive* constructions. Then, we have explained the subtleties in meaning that each *complementary contrastive* construction presents, proving that there are no semantically identical constructions. This chapter has also revealed that it is possible to find contrast and addition cognitive operations in combination with the operations of highlighting, re-instatement and broadening, thereby resulting in amalgams of cognitive operations.

Chapter 6 has studied *contrast* constructions in depth. It has argued that these configurations are used to express an opposing relation between two or more states of affairs, entities, or attributes of entities in the world. For this constructional family, we have identified four different groups of configurations: *contraposition, exception, alternative-contrastive,* and *disagreement* constructions. In the case of *contraposition* constructions, we have demonstrated that speakers can signal an existing contrast between two elements in the world holistically, as in *Clashing with X, Y*; partially, by focusing on a concrete characteristic of the elements compared, as in *X as opposed to Y*; or symmetrically, as in *X conversely Y,* which is used to introduce a statement about a situation that is the reverse of another situation. Nevertheless, in some cases the application of high level metonymies (i.e. RESULT FOR ACTION) and/or metaphors (i.e. IDEAS ARE OBJECTS, GOALS ARE DESTINATIONS, SIMILARITY IS CLOSENESS, etc.) is necessary to understand the contrasting scenario. As for *exception* constructions, they are used to indicate that Y is the only exception that confirms that the circumstances in X are true. Along with traditional exception markers such as *besides* or *but,* this section has also examined the constructions *No X other than Y* and *There's no X like Y*, which have never been taken into account at discourse level, nor in research on expressions used to create contrast in language. Then, we have described the

alternative-contrastive constructions and specified the three contexts where these configurations can be inserted, finishing the chapter with the analysis of *disagreement* constructions. As their name indicates, these configurations are used to express disagreement or a different opinion that may result in the correction of a previous statement or conventional assumption (regarded as erroneous by the speaker) with new, real and verifiable facts. This chapter has also specified the conditions for the preference of use of one contrast connector over another, thus giving a complete account of their meaning potential.

Finally, chapter 7 has offered a computational implementation of the project. For this purpose, it has made use of the resources provided by FunGramKB, whose main features have been described in this chapter. This chapter has provided readers with a tentative proposal on how discourse constructions can be represented in COREL, the metalanguage used for conceptual and constructional representation in FunGramKB. This chapter has also described the problems encountered in the process, offering suggestions for future research that may be of use for both linguists and knowledge engineers interested in developing discourse structure from a computational perspective.

This dissertation demonstrates that it is indeed feasible to develop a description of larger texts based on the basic insights of Construction Grammar, emphasizing the applicability of this framework for the understanding of human cognition.

What is more, it involves a clear step forward in the classification and categorization of discourse constructions, by offering a workable analytical methodology based on real language use. This methodology has also revealed the existing connections between *complementary alternation, complementary contrastive*

and *contrast* constructions as part of the same contrast continuum. The findings reported in this dissertation open in this manner new pathways for research into constructional behavior in discourse from a cognitive perspective.

Additionally, we have also specified the conditions for the preference of use of one connector over another, giving a cognitive account of the discourse understanding process. This kind of study is potentially useful for advanced dictionary users, since at present the definitions for connectors are either incomplete or misleading. In this respect, we believe that there is still a lot of work to be done in modern lexicography to improve the treatment of discourse connectors and conjunctions. The constructionist perspective, which includes a close examination of cognitive models and construal phenomena, may be very useful in this respect. In consonance with the improvement of the lexicographical treatment of connectors, the results of the present research have important pedagogical implication for the study of English as a Second Language. In this respect, we strongly believe that instructors and institutions should be informed of the importance of discourse constructions in language learning.

However, the present study only affects a limited number of constructions. More constructional families need to be identified and a larger number of constructions should be examined. Also, a larger-scale corpus analysis would be necessary to refine even more the classifications and descriptions offered in these pages. In any event, the analytical methodology used has proved productive in descriptive and explanatory terms. This means that the present study has at least provided interested researchers with an analytical model to follow and apply to other domains of discourse organization where a constructionist approach can be beneficial.

As for the computational implementation, we are aware of the limitations imposed by COREL for the codification of discourse constructions. For example, we have been unable to represent hypothetical scenarios or the idea of comparison in computational terms. It is well known that machines are not yet ready to cover all the intricacies of human language. Despite the impressive developments made in artificial intelligence over the last decade, there is still a long way to go before machines can fully understand natural language, at least at discourse level.

Further research that would contribute to a fuller understanding of discourse phenomena would involve the extension of the taxonomy proposed here, identifying other constructional families at discourse level following the same classification methodology. Any further research in this area should explore the relationship between these and other constructional families at discourse level, such as *addition* or other kinds of *comparison* constructions.

References

Abraham, W. (1991). *Discourse particles*. Amsterdam: John Benjamins.

Altenberg, B. (2002). Causative constructions in English and Swedish. In *Lexis in contrast: Corpus-based approaches* (pp. 97–116). Amsterdam & Philadelphia: John Benjamins.

Antaki, C., & Wetherell, M. (1999). Show concessions. *Discourse Studies*, *1*(1), 7–27.

Antonopoulou, E., & Nikiforidou, K. (2011). Construction grammar and conventional discourse: A construction-based approach to discoursal incongruity. *Journal of Pragmatics*, *43*(10), 2594–2609.

Asher, N., & Lascarides, A. (2003). *Logics of conversation. Studies in natural language processing*. Cambridge: Cambridge University Press.

Bach, K. (1994). Conversational impliciture. *Mind & Language*, *9*(2), 124–162.

Baicchi, A. (2011). Metaphoric motivation in grammatical structure. The case of the caused-motion construction from the perspective of the Lexical Constructional Model. In K.-U. Panther, G. Radden, & P. Koch (Eds.), *Motivation in grammar and the lexicon* (Vol. 1, pp. 149–170). Amsterdam/ Philadelphia: John Benjamins.

Baicchi, A. (2015). *Construction learning as a complex adaptive system. Psycholinguistic evidence from L2 learners of English*. Cham: Springer.

Baicchi, A., & Ruiz De Mendoza Ibáñez, F. J. (2010). The cognitive grounding of illocutionary constructions within the theoretical perspective of the Lexical Constructional Model. *Textus: English Studies in Italy*, *3*, 543–563.

Bazzanella, C. (1990). Phatic connectives as interactional cues in contemporary spoken Italian. *Journal of Pragmatics*, *14*(4), 629–647.

Behrens, H., Bencini, G. M. ., Goldberg, A. E., & Bybee, J. (2000). The contribution of argument structure constructions to sentence meaning. *Journal of Memory and Language*, *43*(4), 640–651.

Bender, E. M., & Kathol, A. (2001). Constructional effects of 'just because ... doesn't mean'. *BLS*, *27*.

Bergen, B. K. (2008). A whole-systems approach to language: An interview with Luc Steels. *Annual Review of Cognitive Linguistics*, *6*(1), 329–344.

Bergen, B. K., & Chang, N. C. (2005). Embodied Construction Grammar in simulation-based language understanding. In J.-O. Östman & M. Fried (Eds.), *Construction grammars: Cognitive grounding and theoretical extensions* (pp. 147–190). Amsterdam & Philadelphia: John Benjamins.

Bergen, B. K., & Chang, N. C. (2013). Embodied Construction Grammar. In T. Hoffmann & G. Trousdale (Eds.), *The Oxford handbook of Construction Grammar*. Oxford University Press.

Blakemore, D. (1987). *Semantic constraints on relevance*. Oxford: Blackwell.

Blakemore, D. (1992). *Understanding utterances*. Oxford: Blackwell.

Blakemore, D. (2002). *Relevance and linguistic meaning: The semantics and pragmatics of discourse markers*. Cambridge: Cambridge University Press.

Boas, H. C. (2000). *Resultative constructions in English and German*. University of North Carolina.

Boas, H. C. (2002). On the role of semantic constraints in resultative constructions. In R. Rapp (Ed.), *Linguistics on the way into the new millennium* (pp. 35–44). Frankfurt am Main: Peter Lang.

Boas, H. C. (2003). *A constructional approach to resultatives*. Standford, CA.: CSLI.

Boas, H. C. (2005a). Determining the productivity of resultatives: A reply to Goldberg and Jackendoff. *Language*, *81*(2), 448–464.

Boas, H. C. (2005b). From theory to practice: Frame semantics and the design of FrameNet. In S. Langer & D. Schnorbusch (Eds.), *Semantisches wissen im lexikon* (pp. 129–160). Tübingen: Narr.

Boas, H. C. (2008). Resolving form-meaning discrepancies in Construction Grammar. In J. Leino (Ed.), *Constructional reorganization* (pp. 11–36). Amsterdam & Philadelphia: John Benjamins.

Boas, H. C. (2009). Verb meanings at the crossroads between higher-level and lower-level constructions. *Lingua*, *120*(1), 22–34.

Boas, H. C. (2011a). A frame-semantic approach to syntactic alternations: The case of build verbs. In P. Guerrero Medina (Ed.), *Verbal alternations in English* (pp. 207–234). London: Equinox.

Boas, H. C. (2011b). Coercion and leaking argument structures in Construction Grammar. *Linguistics*, *49*(6), 1271–1303.

Boas, H. C., & Fried, M. (2005). *Grammatical constructions. Back to the roots*. Amsterdam & Philadelphia: John Benjamins.

Boas, H. C., Sag, I. A., & Michaelis, L. A. (2009). *Sign-Based Construction Grammar*. (T. Hoffmann & G. Trousdale, Eds.), *The Oxford handbook of linguistic analysis*. Oxford: Oxford University Press.

Bod, R. (2009). Constructions at work or at rest? *Cognitive Linguistics*, *20*(1), 129–134.

Brinton, L. J. (1996). *Pragmatic markers in English*. Berlin & New York: De Gruyter Mouton.

Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language usage*. Cambridge: Cambridge University Press.

Butler, C. S., & Gonzálvez-García, F. (2014). *Exploring functional-cognitive space*. Amsterdam: John Benjamins.

Cambridge Dictionary. English Dictionary, Translations and Thesaurus. Available online at http://dictionary.cambridge.org/

Carston, R. (2000). Explicature and semantics. *UCL Working Papers in Linguistics*, *12*(1), 44–89.

Carston, R. (2002). *Thoughts and utterances: The pragmatics of explicit communication*. Oxford: Blackwell Publishing.

Carston, R. (2010). Explicit communication and "free" pragmatic enrichment. In B. Soria & E. Romero (Eds.), *Explicit communication* (pp. 217–285). London: Palgrave Macmillan UK.

Chafe, W. L. (2000). Verbs and their objects and the one new idea hypothesis. In A. K. Melby & A. R. Lommel (Eds.), *LACUS forum XXVI: The lexicon* (pp. 5–18). Fullerton, CA.: LACUS.

Couper-Kuhlen, E., & Thompson, S. A. (2000). Concessive patterns in conversation. In E. Couper-Kuhlen & B. Kortmann (Eds.), *Cause, condition, concession, contrast: cognitive and discourse perspectives* (pp. 381–410). Berlin & New York: Mouton de Gruyter.

Couper-Kuhlen, E., & Thompson, S. A. (2005). A Linguistic practice for retracting Overstatements: "Concessive Repair". In A. Hakulinen & M. Selting (Eds.), *Studies in discourse and grammar, 17: Syntax and lexis in conversation: Studies on the use of linguistic resources in talk-in-interaction* (pp. 257–288). Amsterdam & Philadelphia: John Benjamins.

Croft, W. (2001). *Radical Construction Grammar: Syntactic theory in typological perspective*. Oxford: Oxford University Press.

Croft, W. (2003). Lexical rules vs. constructions. In H. Cuyckens, T. Berg, R. Dirven, & K.-U. Panther (Eds.), *Motivation in language: Studies in honor of Günter Radden* (pp. 49–68). Amsterdam & Philadelphia: John Benjamins.

Croft, W. (2005). Logical and typological arguments for Radical Construction Grammar. In J.-O. Östman & M. Fried (Eds.), *Construction grammars:*

Cognitive grounding and theoretical extensions (pp. 273–314). Amsterdam & Philadelphia: John Benjamins.

Croft, W., & Cruse, D. A. (2004). *Cognitive linguistics*. Cambridge: Cambridge University Press.

Davies, M. (2004). BYU-BNC. (Based on the British National Corpus from Oxford University Press). Available online at http://corpus.byu.edu/bnc/

Davies, M. (2008). Corpus of Contemporary American English (COCA): 520 million words, 1990-present. Available online at http://corpus.byu.edu/coca/

De Beule, J., & Steels, L. (2005). Hierarchy in Fluid Construction Grammars. In U. Furbach (Ed.), *Advances in artificial intelligence*. Berlin & Heidelberg: Springer.

Degand, L. (2009). Speech acts and grammar. In *Concise encyclopedia of pragmatics (2nd ed.)* (pp. 673–679). Oxford: Elsevier.

Degand, L., & Pander Maat, H. (2003). A contrastive study of Dutch and French causal connectives on the Speaker Involvement Scale. In A. Verhagen & J. van de Weijer (Eds.), *Usage based approache to Dutch* (pp. 175–199). Utrecht: LOT.

Del Campo Martínez, N. (2011a). A constructional approach to the expression of illocutionary meaning: An analysis of constructions performing the speech acts of requesting and begging. *Revista Espanola de Linguistica Aplicada*, *24*, 43–60.

Del Campo Martínez, N. (2011b). Cognitive modelling in illocutionary meaning. *Review of Cognitive Linguistics*, *9*(2), 392–412.

Del Campo Martínez, N. (2012). *Construcciones ilocutivas en inglés: un estudio desde el punto de vista del Modelo Léxico Construccional*. Universidad de La Rioja.

Del Campo Martínez, N. (2013). *Illocutionary constructions in English: Cognitive motivation and linguistic realization*. Bern: Peter Lang.

Del Campo Martínez, N., & Ruiz De Mendoza Ibáñez, F. J. (2012). A constructionist approach to illocution: the case of orders. *Miscelánea. A Journal of English and American Studies*, *45*, 13–31.

Dictionary.com. Meanings and Definitions of Words. Available online at http://www.dictionary.com/

Dik, S. C. (1997). *The theory of Functional Grammar. Part 1, Structure of the clause*. Berlin: Mouton de Gruyter.

Dik, S. C., & Hengeveld, K. (1997). *The theory of Functional Grammar. Part 2, Complex and derived constructions*. Berlin: Mouton de Gruyter.

Dirven, R., & Ruiz de Mendoza Ibáñez, F. J. (2010). Looking back at 30 years of Cognitive Linguistics. In E. Tabakowska, M. Choinski, & L. Wiraszka (Eds.), *Cognitive Linguistics in action. From theory to application and back* (pp. 13–70). Berlin & New York: De Gruyter Mouton.

Eddington, D., & Ruiz De Mendoza Ibáñez, F. J. (2010). Argument constructions and language processing: Evidence from a priming experiment and pedagogical implications. In S. De Knop, F. Boers, & T. De Rycker (Eds.), *Fostering language teaching efficiency through cognitive linguistics* (pp. 213–238). Berlin: Mouton de Gruyter.

Erman, B. (1987). *Pragmatic expressions in English: A study of 'you know','you see', and 'I mean' in face-to-face conversation*. Stockholm: Almqvist & Wiksell International.

Faber, P. B., & Mairal Usón, R. (1999). *Constructing a lexicon of English verbs*. Berlin & New York: Mouton de Gruyter.

Feldman, J. A. (2006). *From molecule to metaphor: A neural theory of language*. Cambridge, MA: MIT Press.

Feyaerts, K. (2006). Towards a dynamic account of phraseological meaning: Creative variation in headlines and conversational humour. *International Journal of English Studies*, *6*(1), 57–84.

Fillmore, C. J. (1968). The case for case. In E. Bach & R. T. Harms (Eds.), *Universals in linguistic theory* (pp. 1–25). London: Holt, Rinehart and Winston.

Fillmore, C. J. (1989). Grammatical construction theory and the familiar dichotomies. In R. Dietrich & C. F. Graumann (Eds.), *Language processing in social context* (pp. 17–38). Amsterdam: North Holland.

Fillmore, C. J., & Atkins, B. T. (2000). Describing polysemy: the case of "crawl." In Y. Ravin & C. Leacock (Eds.), *Polysemy: Theoretical and computational approaches*. Oxford: Oxford University Press.

Fillmore, C. J., Kay, P., & O'Connor, M. C. (1988). Regularity and idiomaticity in grammatical constructions: The case of let alone. *Language*, *64*(3), 501–538.

Flamenco García, L. (1999). Las construcciones concesivas y adversativas. In I. Bosque & V. Demonte (Eds.), *Gramática descriptiva de la lengua española. Vol. 3. (Entre la oración y el discurso. Morfología)* (pp. 3805–3878). Madrid: Espasa.

Forsbom, E. (2005). *Rhetorical Structure Theory in natural language generation*. Uppsala University and GSLT.

Franceschi, D. (2015). *Ingressive and egressive verbs in English. A cognitive-pragmatic approach to meaning*. Cambridge: Cambridge Scholars Publishing.

Fraser, B. (1997). Commentary pragmatic markers in English. *Estudios Ingleses de La Universidad Complutense*, *5*, 115–127.

Fraser, B. (1999). What are discourse markers? *Journal of Pragmatics*, *31*(7), 931–952.

Fraser, B. (2006). Towards a theory of discourse markers. In K. Fischer (Ed.), *Approaches to discourse particles* (pp. 189–204). Amsterdam: Elsevier.

Fraser, B. (2009). The English contrastive discourse marker "on the contrary." In K. Turner & B. Fraser (Eds.), *Language in life, and a life in language: Jacob Mey – A Festschrift* (pp. 87–95). Bingley, UK: Emerald.

Fraser, B. (2010). The sequencing of contrastive discourse markers in English. *Baltic Journal of the English Language, Literature and Culture*.

Fried, M. (2009). Construction Grammar as a tool for diachronic analysis. *Constructions and Frames*, *1*(2), 261–290.

Galera Masegosa, A. (2011). Discourse markers in the Lexical Constructional Model: the case of the "So what X" construction. *Revista de Lingüística y Lenguas Aplicadas*, *6*, 151–163.

Galera Masegosa, A. (2013). *Grounding the constructional architecture of the Lexical Constructional Model in cognition: Implications for the development of a knowledge base*. Universidad de La Rioja.

Galera Masegosa, A., & Ruiz De Mendoza Ibáñez, F. J. (2012). Lexical class and perspectivization constraints on subsumption in the Lexical Constructional Model: The case of say verbs in English. *Language Sciences*, *34*(1), 54–64.

Gates, D. L., & Seright, O. D. (1967). Negative-contrastive constructions in standard modern English. *American Speech*, *42*(2), 136.

Gibbs Jr., R. W. (2006a). *Embodiment and cognitive science*. Cambridge: Cambridge University Press.

Gibbs Jr., R. W. (2006b). Introspection and cognitive linguistics. *Annual Review of Cognitive Linguistics*, *4*, 135–151.

Gibbs Jr., R. W. (2006c). Metaphor interpretation as embodied simulation. *Mind and Language*, *21*(3), 434–458.

Gibbs Jr., R. W. (2011). Evaluating Conceptual Metaphor Theory. *Discourse Processes*, *48*(8), 529–562.

Givón, T. (1985). Iconicity, isomorphism, and non-arbitrary coding in syntax. In J. Haiman (Ed.), *Iconicity in syntax: Proceedings of a symposium on iconicity in syntax, Stanford, June 24–26, 1983* (pp. 187–2220). Amsterdam & Philadelphia: John Benjamins.

Givón, T. (1991). Isomorphism in the grammatical code: Cognitive and biological considerations. *Studies in Language*, *15*(1), 85–114.

Givón, T. (1995). *Functionalism and grammar*. Amsterdam: John Benjamins.

Goddard, C., & Wierzbicka, A. (2002). *Meaning and Universal Grammar*. Amsterdam: John Benjamins.

Goldberg, A. E. (1989). A unified account of the semantics of the English ditransitive. In *Annual Meeting of the Berkeley Linguistics Society* (pp. 79–90). Berkeley, CA: Berkeley Linguistics Society.

Goldberg, A. E. (1992). The inherent semantics of argument structure: The case of the English ditransitive construction. *Cognitive Linguistics*, *3*(1), 37–74.

Goldberg, A. E. (1995). *Constructions: A Construction Grammar approach to argument structure*. Chicago, IL.: The University of Chicago Press.

Goldberg, A. E. (1996). Making one's way through the data. In M. Shibatani & S. Thompson (Eds.), *Grammatical constructions: Their form and meaning* (pp. 29–53). Oxford: Clarendon Press.

Goldberg, A. E. (1997). The relationships between verbs and constructions. In M. Verspoor, K. D. Lee, & E. Sweetser (Eds.), *Proceedings of the Bi-Annual ICLA Meeting in Albuquerque* (pp. 383–398). Amsterdam & Philadelphia: John Benjamins.

Goldberg, A. E. (2002). Surface generalizations: An alternative to alternations. *Cognitive Linguistics*, *13*(4), 327–356.

Goldberg, A. E. (2003). Constructions: A new theoretical approach to language. *Trends in Cognitive Sciences*, *7*(5), 219–224.

Goldberg, A. E. (2005a). Argument realization: the role of constructions, lexical semantics and discourse factors. In M. Fried & J.-O. Östman (Eds.), *Construction Grammar in a cross-language perspective* (pp. 11–86). Amsterdam & Philadelphia: John Benjamins.

Goldberg, A. E. (2005b). Constructions, lexical semantics and the correspondence principle: Accounting for generalizations and subregularities in the realization of arguments. In *The syntax of aspect* (pp. 215–254). Oxford: Oxford University Press.

Goldberg, A. E. (2006). *Constructions at work: The nature of generalization in language.* Oxford: Oxford University Press.

Goldberg, A. E. (2009). The nature of generalization in language. *Cognitive Linguistics*, *20*(1), 93–127.

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Goldberg, A. E., Casenhiser, D. M., & Sethuraman, N. (2004). Learning argument structure generalizations. *Cognitive Linguistics*, *15*(3), 289–316.

Goldberg, A. E., & Jackendoff, R. (2004). The English resultative as a family of constructions. *Language*, *80*(3), 532–568.

Gonzálvez-García, F. (2008). Towards a constructionist account of secondary predication with verba dicendi et declarandi in English and Spanish. In M. de los Á. Gómez-González, J. L. Mackenzie, & E. M. González-Álvarez (Eds.), *Current trends in contrastive linguistics: Functional and cognitive perspectives* (pp. 281–321). Amsterdam & Philadelphia: John Benjamins.

Gonzálvez-García, F. (2009a). Aspects of meaning construction. *Journal of Pragmatics*, *41*(12), 2575–2578.

Gonzálvez-García, F. (2009b). The family of object-related depictives in English and Spanish: towards a usage-based constructionist analysis. *Language Sciences*, *31*(5), 663–723.

Gonzálvez-García, F. (2011). Metaphor and metonymy do not render coercion superfluous: Evidence from the subjective-transitive construction. *Linguistics*, *49*(6), 1305–1358.

Gonzálvez-García, F., & Butler, C. S. (2006). Mapping functional-cognitive space. *Annual Review of Cognitive Linguistics*, *4*, 39–96.

Haiman, J. (1985). *Iconicity in Syntax*. (Vol. 6). Amsterdam: John Benjamins.

Halliday, M. A. K. (1978). *Language as social semiotic: The social interpretation of language and meaning*. London: Edward Arnold.

Halliday, M. A. K., & Hasan, R. (1976). *Cohesion in English*. London and New York: Routledge.

Halliday, M. A. K., & Matthiessen, C. (2004). *An Introduction to Functional Grammar* (3rd ed.). London: Edward Arnold.

Halliday, M. A. K., & Matthiessen, C. (2006). *Construing experience through meaning: A language-based approach to cognition*. London, Oxford & New York: Bloomsbury.

Hannay, M., Martínez Caro, E., & Mackenzie, J. L. (2014). Besides as a connective. In M. de los Á. Gómez González, F. J. Ruiz de Mendoza Ibáñez, F. Gonzálvez-García, & A. Downing (Eds.), *The functional perspective on language and discourse: Applications and implications* (pp. 223–242). Amsterdam & Philadelphia: John Benjamins.

Hilpert, M. (2010). Comparing comparatives. In H. C. Boas (Ed.), *Contrastive studies in Construction Grammar* (pp. 21–42). Amsterdam & Philadelphia: John Benjamins.

Hobbs, J. R. (1979). Coherence and coreference. *Cognitive Science*, *3*, 67–90.

Hoey, M. (1991). *Patterns of Lexis in Text*. Oxford: Oxford University Press.

Hoffmann, T., & Trousdale, G. (2013). *The Oxford handbook of Construction Grammar*. Oxford University Press.

Huddleston, R. D., & Pullum, G. K. (2002). *The Cambridge grammar of the English language*. Cambridge: Cambridge University Press.

Imo, W. (2006). A Construction Grammar approach to the phrase "I mean" in spoken English. *GIDI (Grammatik in Der Interaktion) Arbeitspapierreihe*, *4*.

Irmer, M. (2011). Anáforas indirectas y dislocación a la izquierda. In E. Hernández-Socas, C. Sinner, & G. Wotjak (Eds.), *Estudios de tiempo y espacio en la gramática española* (pp. 327–340). Bern: Peter Lang.

Iruskieta, M., da Cunha, I., & Taboada, M. (2015). A qualitative comparison method for rhetorical structures: identifying different discourse structures in multilingual corpora. *Language Resources and Evaluation*, *49*(2), 263–309.

Iza Erviti, A. (2015a). Complementary alternation discourse constructions in English: A preliminary study. *IJES (International Journal of English Studies)*, *1*(1), 71–96.

Iza Erviti, A. (2015b). Discourse constructions in English: The case of complemetnary-contrastive constructions. *Procedia - Social and Behavioral Sciences*, *212*, 261–265.

Izutsu, M. N. (2008). Contrast, concessive, and corrective: Toward a comprehensive study of opposition relations. *Journal of Pragmatics*, *40*(4), 646–675.

Janssen, T. A. J. M., & Redeker, G. (1999). *Cognitive Linguistics: Foundations, Scope, and Methodology*. Berlin: Mouton de Gruyter.

Jiménez Briones, R. (2017). A computational account of illocutionary meaning. *Research in Corpus Linguistics (RiCL)*.

Jiménez Briones, R., & Luzondo Oyón, A. (2011). Building ontological meaning in a lexico-conceptual knowledge base. *Onomazein*, *23*(1), 11–40.

Kay, P. (2002). An informal sketch of a formal architecture for Construction Grammar. *Grammars*, *5*(1), 1–19.

Kay, P., & Fillmore, C. J. (1995). *Construction Grammar. Handbook of pragmatics*. Berkeley, CA: University of California.

Kay, P., & Fillmore, C. J. (1999). Grammatical constructions and linguistic generalizations: The What's X doing Y? construction. *Language*, *75*(1), 1–33.

Kelso, J. A. S. (2008). An essay on understanding the mind. *Ecological Psychology: A Publication of the International Society for Ecological Psychology*, *20*(2), 180–208.

Kiss, T., & Alexiadou, A. (2015). *Syntax - Theory and analysis: An international handbook.* (T. Kiss & A. Alexiadou, Eds.). Berlin, Munich & Boston: De Gruyter Mouton.

Knott, A., & Dale, R. (1994). Using linguistic phenomena to motivate a set of coherence relations. *Discourse Processes*, *18*, 35–62.

Knott, A., & Sanders, T. J. M. (1998). The classification of coherence relations and their linguistic markers: An exploration of two languages. *Journal of Pragmatics*, *30*, 135–175.

Kroon, C. (1995). *Discourse particles in Latin: A study of nam, enim, autem, vero and at. Amsterdam Studies in Classical Philology 4*. JC Gieben.

Labov, W. (1972). Some principles of linguistic methodology. *Language in Society*, *1*(1), 97–120.

Lakoff, G. (1987). *Women, fire, and dangerous things: What categories reveal about the mind*. Chicago, IL.: University of Chicago Press.

Lakoff, G. (1993). The contemporary theory of metaphor. In A. Ortony (Ed.), *Metaphor and thought* (2nd ed.). Cambridge: Cambridge University Press.

Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: the embodied mind and its challenge to Western thought*. New York: Basic Books.

Lambrecht, K. (1996). *Information structure and sentence form: Topic, focus, and the mental representations of discourse referents*. Cambridge: Cambridge University Press.

Lambrecht, K. (2004). On the interaction of information structure and formal structure in constructions. In M. Fried & J.-O. Östman (Eds.), *Construction Grammar in a cross-language perspective* (pp. 157–199). Amsterdam & Philadelphia: John Benjamins.

Langacker, R. W. (1987). *Foundations of Cognitive Grammar*. Stanford, CA: Stanford University Press.

Langacker, R. W. (1991a). *Concept, image, and symbol: The cognitive basis of grammar*. Berlin & New York: Mouton de Gruyter.

Langacker, R. W. (1991b). *Foundations of Cognitive Grammar. Vol. 2; Descriptive applications*. Stanford, CA: Stanford University Press.

Langacker, R. W. (1999). *Grammar and conceptualization*. Berlin & New York: Mouton de Gruyter.

Langacker, R. W. (2005). Construction grammars: Cognitive, Radical and less so. In F. J. Ruiz De Mendoza Ibáñez & M. S. Peña Cervel (Eds.), *Cognitive linguistics: Internal dynamics and interdisciplinary interaction* (pp. 101–159). Berlin & New York: Mouton de Gruyter.

Langacker, R. W. (2008). *Cognitive Grammar: A basic introduction*. New York: Oxford University Press.

Lavacchi, L., & Nicolás Martínez, M. C. (1994). Oraciones de aunque y pero. *VERBA*, *21*, 257–278.

Lieven, E. (2009). Developing constructions. *Cognitive Linguistics*, *20*(1), 191–199.

Linell, P. (2009). Grammatical constructions in dialogue. In A. Bergs & G. Diewald (Eds.), *Contexts and constructions* (pp. 97–110). Amsterdam &Philadelphia: John Benjamins.

Linquist, S., Machery, E., Griffiths, P. E., & Stotz, K. (2011). Exploring the folkbiological conception of human nature. *Philosophical Transactions of the Royal Society B-Biological Sciences: Biological Sciences*, *366*(1563), 444–453.

Luzondo Oyón, A. (2011). *English resultative constructions in the Lexical Constructional Model: Implications for Constructional modeling within a lexical conceptual knowledge base*. Universidad de La Rioja.

Luzondo Oyón, A. (2014). Constraining factors on the family of resultative constructions. *Review of Cognitive Linguistics*, *12*(1), 30–63.

Luzondo Oyón, A., & Jiménez Briones, R. (2014). FrameNet and FunGramKB: A comparison of two computational resources for semantic knowledge representation. In *Language processing and grammars: The role of functionally oriented computational models* (pp. 197–232). Amsterdam & Philadelphia: John Benjamins.

Luzondo Oyón, A., & Ruiz De Mendoza Ibáñez, F. J. (2015). Argument structure constructions in a natural language processing environment. *Language Sciences*, *48*, 70–89

Luzondo Oyón, A., & Ruiz De Mendoza Ibáñez, F. J. (2017). Argument-structure and implicational constructions in a knowledge base. *Onomazéin*, 32–58.

Mairal Usón, R. (2015). Constructional meaning representation within a knowledge engineering framework. *Review of Cognitive Linguistics*, *13*(1), 1–27.

Mairal Usón, R., & Periñán Pascual, C. (2008). The anatomy of the lexicon within the framework of an NLP knowledge base. *Science*, *22*, 1–33.

Mairal Usón, R., & Periñán Pascual, C. (2010a). La gramática de COREL: un lenguaje de representación conceptual. *Onomázein 21*, *21*(1), 11–45.

Mairal Usón, R., & Periñán Pascual, C. (2010b). Teoría lingüística y representación del conocimiento: una discusión preliminar. In D. García

Padrón & M. del C. Fumero Pérez (Eds.), *Tendencias en lingüística general y aplicada,* (pp. 155–168). Bern: Peter Lang.

Mairal Usón, R., & Periñán Pascual, C. (2014). Representing constructional schemata in FunGramKB grammaticon. In J. Fleischhauer, A. Latrouite, & R. Osswald (Eds.), *Exploring the syntax-semantics interface,* (pp. 1–25). Düsseldorf: Düsseldorf University Press.

Mairal Usón, R., & Ruiz De Mendoza Ibáñez, F. J. (2009). Levels of description and explanation in meaning construction. In C. S. Butler & J. Martín Arista (Eds.), *Deconstructing constructions* (pp. 153–198). Amsterdam & Philadelphia: John Benjamins.

Mairal Usón, R., Ruiz De Mendoza Ibáñez, F. J., & Periñán Pascual, C. (2011). Constructions within a natural language processing knowledge base. In H. C. Boas & F. Gonzálvez-García (Eds.), *Construction grammar goes romance* (pp. 1–25). Amsterdam & Philadelphia: John Benjamins.

Mann, W. C., & Thompson, S. A. (1988). Rhetorical Structure Thory: Toward a functional theory of text organization. *Text*, *8*(3), 243–281.

McKeown, K. R. (1985). *Text generation: Using discourse strategies and focus constraints to generate natural language text*. Cambridge: Cambridge University Press.

Mel'cuk, I. (1989). Semantic primitives from the viewpoint of the Meaning-Text linguistic theory. *Quaderni Di Semantica*, *10*, 65–102.

Mel'cuk, I., & Wanner, L. (1996). Lexical functions and lexical inheritance for emotion lexemes in German. In *Lexical functions in lexicography and*

natural language processing (pp. 209–278). Amsterdam & Philadelphia: John Benjamins.

Merriam-Webster Dictionary. Available online at https://www.merriam-webster.com/

Michaelis, L. A., & Lambrecht, K. (1996). Toward a construction-based theory of language function: The case of nominal extraposition. *Language*, *72*(2), 215–247.

Nikiforidou, K. (2009). Constructional analysis. In F. Brisard, J.-O. Östman, & J. Verschueren (Eds.), *Grammar, meaning and pragmatics* (pp. 16–32). Amsterdam: John Benjamins.

Nikiforidou, K. (2010). Discoursal categories and grammatical description: A constructional integration. In *6th International Conference on Construction Grammar*. Prague.

Noordman, L. G. M. (2001). On the production of causal-contrastive although sentences in context. In T. Sanders, J. Schilperoord, & W. Spooren (Eds.), *Text representation: Linguistic and psycholinguistic aspects* (p. 153). Amsterdam & Philadelphia: John Benjamins.

Östman, J. O. (1981). *You know. A discourse-functional approach*. Amsterdam: John Benjamins.

Östman, J. O. (1999). Coherence through understanding through discourse patterns: Focus on news reports. In W. Bublitz, U. Lenk, & E. Ventola (Eds.), *Coherence in spoken and written discourse: How to create it and how to describe it.* (pp. 77–100). Amsterdam: John Benjamins.

Östman, J. O. (2005). Construction discourse. In *Construction Grammars: Cognitive grounding and theoretical extensions* (pp. 121–144). Amsterdam & Phildadelphia: John Benjamins.

Östman, J. O., & Fried, M. (2004). Historical and intellectual background of Construction Grammar. In J.-O. Östman & M. Fried (Eds.), *Construction Grammar in a cross-language perspective* (pp. 1–10). Amsterdam & Philadelphia: John Benjamins.

Östman, J. O., & Fried, M. (2005). The Cognitive grounding of Constructional Grammar. In *Construction Grammars* (pp. 1–13). Amsterdam & Philadelphia: John Benjamins.

Östman, J. O., & Trousdale, G. (2013). *Dialects, discourse, and Construction Grammar*. (T. Hoffmann & G. Trousdale, Eds.). Oxford: Oxford University Press.

Oxford Dictionaries. Dictionary, Thesaurus, and Grammar. Available online at https://en.oxforddictionaries.com/

Ozaki, Y., & Bekki, D. (2011). Conditional logic Cb and its tableau system. In *Logical Aspects of Computational Linguistics (6th international conference, LACL2011)* (pp. 190–204). Montpellier, France: Springer.

Peña Cervel, M. S. (2009). Constraints on subsumption in the caused-motion construction. *Language Sciences*, *31*, 740–765.

Pérez-Hernández, L. (2001). The directive-commissive continuum. *Miscelánea: A Journal of English and American Studies*, *23*(23), 77–98.

Pérez-Hernández, L. (2009). Análisis léxico-construccional de los verbos de habla. A lexical-constructional analysis of verbs of speech. *Círculo de Lingüística Aplicada a La Comunicación*, *40*, 62–92.

Pérez-Hernández, L. (2013). Illocutionary constructions: (multiple source)-in-target metonymies, illocutionary ICMs, and specification links. *Language & Communication*, *33*(2), 128–149.

Pérez-Hernández, L., & Peña Cervel, M. S. (2009). Pragmatic and Cognitive constraints on lexical- constructional subsumption. *Journal of the Spanish Association of Anglo-American Studies*, *31*(2), 57–73.

Pérez-Hernández, L., & Ruiz De Mendoza Ibáñez, F. J. (2011). A lexical-constructional model account of illocution. *Vigo International Journal of Applied Linguistics*, *8*(1), 99–137.

FunGramKB. Available online at http://fungramkb.com/

Periñán Pascual, C. (2012). The situated common-sense knowledge in FunGramKB. *Review of Cognitive Linguistics* , *10*(1), 184–214.

Periñán Pascual, C. (2013a). A knowledge-engineering approach to the cognitive categorization of lexical meaning. *VIAL. Vigo International Journal of Applied Linguistics*, *10*, 85–104.

Periñán Pascual, C. (2013b). Towards a model of constructional meaning for natural language understanding. In B. Nolan & E. Diedrichsen (Eds.), *Linking constructions into Functional Linguistics: The role of constructions in grammar* (pp. 205–230). Amsterdam: John Benjamins.

Periñán Pascual, C. (2015). The underpinnings of a composite measure for automatic term extraction: The case of SRC. *Terminology*, *21*(2), 151–179.

Periñán Pascual, C., & Arcas-Túnez, F. (2005). Microconceptual-knowledge spreading in FunGramKB. In *9th IASTED International Conference on Artificial Intelligence and Soft Computing* (pp. 239–244). Anaheim, California: ACTA Press.

Periñán Pascual, C., & Arcas-Túnez, F. (2007). Cognitive modules of an NLP knowledge base for language understanding. *Procesamiento Del Lenguaje Natural*, *39*, 197–204.

Periñán Pascual, C., & Arcas-Túnez, F. (2008). A cognitive approach to qualities for NLP. *Procesamiento Del Lenguaje Natural*, *41*, 137–144.

Periñán Pascual, C., & Arcas-Túnez, F. (2010). The architecture of FunGramKB. In N. Calzolari, K. Choukri, Maegaard, J. Mariani, J. Odijk, S. Piperidis, & D. Tapias (Eds.), *LREC* (pp. 2667–2674). Valletta, Malta: European Language Resources Association.

Periñán Pascual, C., & Arcas-Túnez, F. (2011). Introducción a FunGramKB. *Anglogermánica Online*, *8*, 1–15.

Periñán Pascual, C., & Arcas-Túnez, F. (2014a). La ingeniería del conocimiento en el dominio legal: La construcción de una ontología satélite en FunGramKB Knowledge engineering in the legal domain: The construction of a FunGramKB satellite ontology. *Revista Signos. Estudios de Lingüística*, *47*(84), 113–139.

Periñán Pascual, C., & Arcas-Túnez, F. (2014b). The implementation of the CLS constructor in ARTEMIS. In *Language processing and grammars: The role of functionally oriented computational models* (pp. 165–196). Amsterdam & Philadelphia: John Benjamins.

Periñán Pascual, C., & Mairal Usón, R. (2009a). Bringing Role and Reference Grammar to natural language understanding. Aproximación de la Gramática del Papel y la Referencia a la comprensión del lenguaje natural. *Procesamiento Del Lenguaje Natural*, *43*, 265–273.

Periñán Pascual, C., & Mairal Usón, R. (2009b). Integrating lexico-conceptual knowledge for natural language processing: The cognitive-lexical linkage, 1–32.

Periñán Pascual, C., & Mairal Usón, R. (2010). Enhancing UniArab with FunGramKB. Cómo mejorar UniArab con FunGramKB. *Procesamiento Del Lenguaje Natural*, *44*, 19–26.

Periñán Pascual, C., & Mairal Usón, R. (2011). The COHERENT Methodology in FunGramKB. *Onomázein*, *24*(2), 13–33.

Pitler, E., Raghupathy, M., Mehta, H., Nenkova, A., Lee, A., & Joshi, A. (2008). Easily Identifiable discourse relations. In *Coling 2008: Companion volume – Posters and Demonstrations* (pp. 87–90). Manchester.

Polanyi, L., & Scha, R. J. . (1983). The syntax of discourse. *Text - Interdisciplinary Journal for the Study of Discourse*, *3*(3), 261–270.

Pollard, C. J., & Sag, I. A. (1994). *Head-driven phrase structure grammar*. Chicago, IL.: University of Chicago Press.

Pons Bordería, S. (2001). Connectives/discourse markers. An overview. *Quaderns de Filologia. Estudis Literaris*, *6*, 219–243.

Recanati, F. (1989). The pragmatics of what is said. *Mind & Language*, *4*(4), 295–329.

Recanati, F. (2004). *Literal meaning*. Cambridge: Cambridge University Press.

Redeker, G. (1990). Ideational and pragmatic markers of discourse structure. *Journal of Pragmatics*, *14*, 367–381.

Redeker, G. (1991). Linguistic markers of discourse structure. *Linguistics*, *29*, 1139–1172.

Rivarola, J. L. (1976). *Las conjunciones concesivas en español medieval y clásico: Contribución a la sintaxis histórica española.* Tübingen: Niemeyer.

Rudolph, E. (1996). *Contrast: Adversative and Concessive relations and their expressions in English, German, Spanish, Portuguese on sentence and text level*. Berlin: Mouton de Gruyter.

Ruiz De Mendoza Ibáñez, F. J. (2013). Meaning construction, meaning interpretation and formal expression in the Lexical Constructional Model. In E. Diedrichsen & B. Nolan (Eds.), *Linking constructions into Functional Linguistics: The role of constructions in RRG grammars (Studies in Language Series)* (pp. 231–270). Amsterdam & Philadelphia: John Benjamins.

Ruiz De Mendoza Ibáñez, F. J. (2014). Low-level situational cognitive models within the Lexical Constructional Model and their computational

implementation in FunGramKB. In B. Nolan & C. Periñán-Pascual (Eds.), *Language processing and grammars. The role of functionally oriented computational models* (pp. 367–390). Amsterdam & Philadelphia: John Benjamins.

Ruiz de Mendoza Ibáñez, F. J. (2015). Entrenching inferences in implicational and illocutionary constructions. *Journal of Social Sciences*, *11*(3), 258–274.

Ruiz De Mendoza Ibáñez, F. J., & Agustín Llach, M. P. (2016). Cognitive Pedagogical Grammar and meaning construction in L2 1. In S. DeKnop & G. Gilquin (Eds.), *Applied Construction Grammar* (pp. 151–184). Berlin/Boston: Mouton de Gruyter.

Ruiz De Mendoza Ibáñez, F. J., & Baicchi, A. (2007). Illocutionary constructions: Cognitive motivation and linguistic realization. In I. Kecskes & L. Horn (Eds.), *Explorations in pragmatics: Linguistic, cognitive, and intercultural aspects* (pp. 95–128). Berlin & New York: Mouton de Gruyter.

Ruiz De Mendoza Ibáñez, F. J., & Galera Masegosa, A. (2014). *Cognitive modeling: A linguistic perspective*. Amsterdam/ Philadelphia: John Benjamins.

Ruiz De Mendoza Ibáñez, F. J., & Gómez-González, M. de los Á. (2014). Constructing discourse and discourse constructions. In M. de los Á. Gómez-González, F. J. Ruiz De Mendoza Ibáñez, & F. Gonzálvez-García (Eds.), *Theory and practice in functional-cognitive space* (pp. 295–314). Amsterdam & Philadelphia: John Benjamins.

Ruiz de Mendoza Ibáñez, F. J., & Gonzálvez-García, F. (2011). Illocutionary meaning revisited: subjective transitive constructions in the Lexical Constructional Model. *Turning Points in the Philosophy of Language and Linguistics*, (November 2014), 65–77.

Ruiz De Mendoza Ibáñez, F. J., & Luzondo Oyón, A. (2012). Lexical-constructional subsumption in resultative constructions in English. In M. Brdar, I. Raffaelli, & M. Zic Fuchs (Eds.), *Cognitive linguistics. Between universality and variation* (pp. 117–136). Newcastle upon Tyne: Cambridge Scholars Publishing.

Ruiz De Mendoza Ibáñez, F. J., & Luzondo Oyón, A. (2016). Figurative and non-figurative motion in the expression of result in English. *Language and Cognition*, *8*, 32–58.

Ruiz De Mendoza Ibáñez, F. J., & Mairal Usón, R. (2007). High-level metaphor and metonymy in meaning construction. In G. Radden, K.-M. Köpcke, T. Berg, & P. Siemund (Eds.), *Aspects of meaning construction* (pp. 33–49). Amsterdam & Philadelphia: John Benjamins.

Ruiz De Mendoza Ibáñez, F. J., & Mairal Usón, R. (2008). Levels of description and constraining factors in meaning construction: An introduction to the Lexical Constructional Model. *Folia Linguistica*, *42*(2), 355–400.

Ruiz De Mendoza Ibáñez, F. J., & Mairal Usón, R. (2011). Constraints on syntactic alternation: Lexical-constructional subsumption in the Lexical Constructional Model. In P. Guerrero Medina (Ed.), *Morphosyntactic alternations in English. Functional and cognitive perspectives* (pp. 62–82). London & Oakville: Equinox Publishing Books.

Sag, I. A. (2012). Sign-Based Construction Grammar: An informal synopsis. In
H. C. Boas & I. A. Sag (Eds.), *Sign-Based Construction Grammar* (pp.
69–202). Standford, CA.: CSLI Publications.

Salkie, R., & Oates, S. L. (1999). Contrast and concession in French and
English. *Languages in Contrast*, *2*(1), 27–56.

Sansò, A. (2003). Review of "Radical construction grammar. Syntactic theory
in typological perspective" by William Croft. *Studies in Language*, *27*(3),
671–682.

Schiffrin, D. (1987). *Discourse markers*. Cambridge: Cambridge University
Press.

Schourup, L. (1985). *Common discourse particles in English conversation:
"like," "well," "y'know."* New York: Garland.

Schütze, C. T. (1996). *The empirical base of linguistics*. Chicago: University of
Chicago Press.

Silvennoinen, O. (2013). *Shaken, Not Stirred: A Constructional Grammar
Account of Contrastive Negation in English*. University of Helsinki.

Sinclair, J. (Ed.). (1987). *Collins COBUILD English Dictionary* (1995th ed.).
London: Collins.

Sperber, D., & Wilson, D. (1986). *Relevance: Communication and cognition*.
Oxford: Blackwell.

Steels, L. (2011). *Design patterns in Fluid Construction Grammar*. (L. Steels,
Ed.) (Vol. 11). Amsterdam: John Benjamins.

Steels, L. (2012). *Design methods for Fluid Construction Grammar*. Berlin & Heidelberg: Springer.

Steels, L., De Beule, J., & Wellens, P. (2012). Fluid Construction Grammar on real robots. In *Language grounding in robots* (pp. 195–213). Berlin: Springer.

Stubbs, M. (1983). *Discourse analysis: The sociolinguistic analysis of natural language*. Chicago, IL.: University of Chicago Press.

Taboada, M., & Gómez-González, M. de los Á. (2012). Discourse markers and coherence relations: Comparison across markers , languages and modalities. *Linguistics and the Human Sciences*, *6*, 17–41.

Taboada, M., & Mann, W. C. (2006). Rhetorical Structure Theory: looking back and moving ahead. *Discourse Studies*, *8*(3), 423–459.

Talmy, L. (2000). *Toward a cognitive semantics. Volume 1: Concept Structuring systems. Volume 2: Typology and process in concept structuring*. Cambridge, MA: MIT Press.

Taylor, J. R. (1995). *Linguistic categorization. Prototypes in linguistic theory* (2nd ed.). Oxford: Oxford University Press.

Taylor, J. R. (2002). *Cognitive Grammar*. Oxford: Oxford University Press.

Thesaurus.com - Meanings and definitions of words. Available online at http://www.thesaurus.com/

Thompson, S. A., & Longacre, R. E. (1985). Adverbial clauses. In T. Shopen (Ed.), *Language typology and syntactic description* (pp. 171–234). Cambridge: Cambridge University Press.

Tognini-Bonelli, E. (2001). *Corpus linguistics at work* (Vol. 6). Amsterdam: John Benjamins.

Toosarvandani, M. (2009a). Letting negative polarity alone for let alone. *Semantics and Linguistic Theory (SALT)*, *18*, 729–746.

Toosarvandani, M. (2009b). The relevance of focus: The case of let alone reopened. *University of Massachusetts Occasional Papers in Linguistics (UMOP)*, *39*, 105–123.

Toosarvandani, M. (2010). Scalar reasoning and the semantics of let alone. *Chicago Linguistic Society (CLS)*, *44*, 51–64.

Van Dijk, T. A. (1972). *Some aspects of text grammars*. Berlin & Boston: Mouton de Gruyter.

Van Dijk, T. A. (1977). *Text and context: Explorations in the semantics and pragmatics of discourse*. London & New York: Longman.

Van Dijk, T. A. (1979). Pragmatic connectives. *Journal of Pragmatics*, *3*, 447–456.

Van Dijk, T. A. (1980). *Macrostructures: An interdisciplinary study of global structures in discourse, interaction, and cognition*. New Jersey: Lawrence Erlbaum Associates.

Van Valin, R. D. (1993). A synopsis of Role and Reference Grammar. In R. D. Van Valin (Ed.), *Advances in Role and Reference Grammar* (pp. 1–164). Amsterdam & Philadelphia: John Benjamins.

Van Valin, R. D. (2008). *Investigations of the syntax–semantics–pragmatics interface*. (R. D. Van Valin Jr., Ed.). Amsterdam: John Benjamins.

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

Veale, T. (2006). Computability as a test on linguistics theories. In G. Kristiansen, M. Achard, R. Dirven, & F. J. Ruiz de Mendoza (Eds.), *Cognitive linguistics. Current applications and future perspectives* (pp. 461–484). Berlin: Mouton de Gruyter.

WebCorp: The Web as Corpus. Available online at http://www.webcorp.org.uk/live/

Wide, C. (2009). Interactional construction grammar. In *Contexts and constructions* (pp. 111–142). Amsterdam & Philadelphia: John Benjamins.

Wierzbicka, A. (1996). *Semantics: Primes and universals*. Oxford: Oxford University Press.

Wierzbicka, A. (1999). *Emotions across languages and cultures: Diversity and universals*. Cambridge: Cambridge University Press.

Wittgenstein, L. (2001). *Philosphical investigations*. Oxford: Basil Blackwell.

WordReference.com dictionary. Available online at http://www.wordreference.com/