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Rule-based and Cognitively-oriented Grammar Teaching. A Comparative Research Applied to English Conditional Sentences

Tesis para optar al grado de Magíster en Lingüística mención Lengua Inglesa

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Abstract

Grammar teaching has been an area of considerable debate in the fields of Applied Linguistics and SLA research, fact that is reflected in the different choices EFL teachers have to make regarding methodologies and techniques in the classroom. As far as teaching practice is concerned, approaches to grammar based on traditional models have been widely accepted and adopted. Nevertheless, a series of shortcomings have been pointed out in current research, such as a considerable degree of arbitrariness, imprecision and contradictions. Alternatively, Cognitive Grammar in recent years has been gaining ground as a theory that may serve as basis for new methodological proposals.

The present work intends to compare and contrast a rule-based approach to a cognitively-oriented one applied to the teaching of grammar. More specifically, both methods will be applied to the teaching of English conditional sentences. The aforementioned constructions have been selected given the complexity of the structures themselves and the oversimplification in their description that has been found in the literature. In order to achieve the goal set above, 36 university students divided into two distinct groups were instructed English conditionals following a rule-based and a cognitively-oriented methodology, respectively. A test common to both groups was applied afterwards with the objective of collecting the necessary data, in order to account for the degree of attainability of the constructions in each group. Such attainability was measured in terms of the grammatical criteria of tense, aspect, and modality contained in each type of conditional sentence. Quantitative results showed similarities in both groups regarding global results, hence the necessity to account for qualitative differences among participants in terms of their specific performance in each of the requested tasks.

Key words: *Cognitive Grammar, rule-based Grammar, teaching, conditional sentences, tense, aspect, modality*

To David, my loving husband and best friend. Your infinite and unconditional love and support have taught me how to become the best version of myself. I could not have been given a better life partner. I love you.

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Chapter 1

Introduction

Grammar teaching has been an issue of considerable debate in the fields of Applied Linguistics and Second Language Acquisition research over the last few years. A topic of special interest within these areas consists of the formulation of different approaches and the implementation of different strategies, all being aimed at accounting for and improving the teaching of a wide range of grammatical constructions. As far as teaching practice is concerned, traditional-structuralist approaches have been widely accepted and subsequently adapted into pedagogical grammars. However, a series of shortcomings have been pointed out by some authors. Bielak and Pawlak (2013), for instance, have characterised such approaches as consisting of sets of rules displaying a high degree of arbitrariness, imprecision, and contradictions to some extent. It is thereby suggested that the approach to grammar adopted may have implications in terms of pedagogical decisions.

On the other hand, cognitive-based approaches have been gaining ground considerably over the last years and new methodological proposals that adhere to a cognitive-linguistic theoretical persuasion have been made. Unlike traditional approaches, cognitive-oriented theories seek to account for learning processes taking into consideration more general cognitive abilities, thus giving more importance to the conceptual motivation of all grammatical expressions. Out of the diverse cognitive-oriented theories in the area, Cognitive Grammar (CG) is one of the most important and representative ones. Developed by R. Langacker, this theory states that grammar is meaningful in the sense that, first, grammatical features have meaning on their own right and, second, grammar allows for the construction of complex meanings via the process of linguistic integration into complex expressions such as phrases, clauses, and sentences (Langacker, 2008). This means, as previously suggested, that grammar and meaning are not clearly delimited and therefore do not form a dichotomy but rather a continuum.

As an instance of the grammatical constructions mentioned previously, English conditional sentences can be deemed to be a challenging topic for EFL teachers and learners.

They are an integral part of EFL syllabuses to the extent that the learning of these grammatical constructions is deemed to be necessary for higher-intermediate and advanced EFL students, for both professional and academic purposes. Both levels are considered to be equivalent to B2 and C1, respectively, according to the Common European Framework of Reference for Languages (CEFR). Similarly, conditionals are a relevant topic for study under a CG perspective, considering the lack of enough applied research on the matter. Studies pertaining to the field of Cognitive Linguistics or Cognitive Grammar have been applied to different constructions in English: for instance, on English tense and aspect (Bielak & Pawlak, 2013), on modal verbs (Tyler, 2012), or on metaphor and metonymy (Littlemore, 2009). However, very few of those studies are devoted to conditionals, such as Dolgova (2012), or the suggestions for further studies on conditionals made in Tyler (2012).

Another reason that justifies engaging with the study of conditionals is the complexity of conditional sentences in English and the repercussions of such complexity in learning by Spanish-speaking EFL learners as well as the teaching of these structures. Conditional sentences can be used to convey a range of complex meanings belonging to the realm of hypothetical situations, relatable to Langacker's concepts of *epistemic control* and *projected reality*, which can be in turn roughly understood as the given degree of certainty over events and the mental extrapolation of such events, respectively. These meanings emerge in English by means of two clauses that stand at a subordination relation, where the clause expressing a condition is subordinated to that one expressing its corresponding consequence or result. In terms of their formal realisation, the verb phrases used can correspond to present or past tenses for the subordinated clause, whereas the main clause can display base verb forms along with modal auxiliaries such as "will" or "would".

From the perspective of students' learning process, there exists an asymmetry between English and Spanish conditional structures that can manifest itself as difficulty in or a lack of apprehending the meanings conveyed by each constituent clause. More precisely, such asymmetry would consist of differences in the mechanisms for formal realisation of conditional sentences in each language. From the perspective of teaching strategies and methods, on the other hand, the teaching of conditionals brings up naturally the discussion

about the theoretical and pedagogical consequences of the use of specific types of grammar and the challenge of how to make a complex linguistic phenomenon more accessible and conceptually motivated for learners (non-linguists). Additionally, from a Cognitive Grammar standpoint, conditional sentences bring forth the overlapping issues of tense, aspect and modality, and can be dealt with in relation to speakers' conception and understanding of the events therein expressed as actual or potential.

Thus, in the light of the relatively new turn of grammatical analysis towards conceptually motivated descriptions, a challenging question arises on the applicability of Cognitive Grammar in the EFL classroom: how is it possible to convey the aforementioned grammatical notions in order to teach English conditional constructions? In the context of implementing the theoretical assumptions on the importance of conceptual motivation in the classroom, it will be herein suggested that a cognitively based teaching framework can be more effective than a traditional-structuralist one. This is based on the assumption that CG can provide the EFL teacher with theoretical tools that can address constructions such as English conditional sentences more appropriately, precisely because of the potential advantages of a cognitively-oriented methodology. Such advantages would consist of the inclusion of unifying and intuitively graspable principles that account for grammatical features of language, thus avoiding rules and *ad hoc* exceptions, and the inclusion of explanations regarding the conceptual motivation of the constructions or pictorial representations of the concepts discussed.

This study, then, aims at comparing the effectiveness of traditional methods on the one hand and the cognitively motivated descriptions on the other, on the basis of a post-test level results for two groups that will receive traditional formal and cognitively-oriented instruction of English conditional sentences, respectively. The study will involve the application of a test common to both instruction groups in order to measure the degree of attainability of the criteria of tense, aspect, and modality entailed in conditional constructions. The data obtained from this test will be subsequently analysed both quantitatively and qualitatively. Thus, this study aims at contributing to a better understanding of the possible applications of Cognitive Grammar theory into the EFL classroom, with various important

consequences on how teachers instruct students on the aforementioned constructions and design teaching material accordingly. Following this introduction, the remainder of the thesis work is divided as follows: the second chapter presents a revision of the Cognitive Linguistics movement in general and Cognitive Grammar theory in particular, as well as a revision of the fundamental views on the herein studied constructions. The third chapter discusses the basic concepts from Cognitive Grammar that are helpful in the proposal of a cognitively-oriented treatment of conditional sentences, as well as the research questions and objectives set for the present research work. The fourth chapter describes the methodological tools and procedures followed to conduct the research, namely the research design, participants and the statistical tests applied for the data analysis. The fifth chapter focuses on the results and the subsequent analysis of the data obtained by means of the test given to participants. Finally, the sixth chapter discusses to the conclusions of the study, as well as its limitations and suggestions for further studies.

Chapter 2

Literature review

2.1 An overview of Cognitive Linguistics

Cognitive Linguistics (abbreviated CL) is the name used to refer to a linguistic movement originated in the 1970s as a response to more formal approaches to language which were predominant at the time, based on studies made on cognitive science and the Gestalt psychology from the 1960s and earlier years (Evans & Green, 2006). Cognitive Linguistics does not refer to only one approach or theory in particular; rather, it encompasses a variety of approaches, each with their own concerns, emphases, and methodologies. However, all these approaches share a series of common assumptions about language and its place within the broader domain of human cognition, hence the term “movement” to refer to Cognitive Linguistics. These assumptions can be briefly summarised into the statement that “language reflects patterns of thought” (Evans & Green, 2006, p. 5) and, therefore, a theory of language should take into consideration processes that are part of general human cognition. This means, therefore, that a theory of language should be cognitively plausible.

At this point, it is important to address the issue of which approaches to language can be regarded as cognitive and which cannot. Formalist and behaviourist approaches can be mentioned among the latter, since the cognitive dimension of language has been disregarded. In the case of formalist approaches, on one hand, language and its structures such as phonology, morphology, syntax, among others, are conceived as self-contained modules disembodied from general cognition and independent from language users. On the other hand, even though behaviourist models may be considered as a basis for Cognitive Linguistics studies, the former take into consideration only observable expressions of language use for purposes of analysis, leaving aside speakers’ intentions, intuitions and conceptualisations (Taylor, 2002).

Considering this background, the following question arises: is Chomsky’s theory of language a cognitive one? In general terms, Generative Grammar has been considered as part

of formalist approaches to grammar since it is based on a description of language and its features in isolation from one another; that is, a modular view of language as well as its components. At the same time, however, language and its grammar are modules that exist within speakers' minds, giving origin to Chomsky's model of a Universal Grammar innate to language users (Chomsky, 1965, cited in Taylor, 2002), an idea that subsequently gave rise to a more general inquiry into the relation between language and mind. Nevertheless, the assumptions that originated from generativist models, especially those related to the abstractness of language's core as well as its modularisation (along with language components), differ from those models included in the CL movement, as will be described below.

In relation to the main assumptions put forward in Cognitive Linguistics, it is important to mention the two key commitments that, according to Lakoff (1987), underlie cognitive linguistic research and differentiate this movement from other linguistic approaches and models. The first of them corresponds to the 'Generalisation commitment'. As previously mentioned, formal approaches propose that language is a system constituted by clearly differentiated components such as the phonological, morphological, syntactical (among others); as such, therefore, linguistic studies are divided into distinct subfields. Cognitive Linguistics, on the other hand, states by means of this commitment that "there are common structuring principles that hold across different aspects of language" (Evans & Green, 2006, p. 28), and distinctions among linguistic subfields are only for practical analytical purposes. Processes such as categorisation, polysemy, and metaphor are presented as the phenomena that allow for the formulation of this commitment, as their occurrence is not restricted only to one or a few language components.

The second commitment corresponds to the 'Cognitive Commitment'. As previously suggested, this commitment is related to the assumption that cognitive linguistic research should reflect principles that are relevant not only to language but also to general human cognition at large. In addition, Cognitive linguistic research should reflect what is known about language from other cognitive disciplines, namely psychology, philosophy, artificial intelligence and neuroscience. In this way, Cognitive Linguistics directly refuses the

assumption of modularity of language presented in formal approaches. Categorisation, metaphor and attention are regarded as evidence for the Cognitive Commitment since they represent abilities that are not exclusive to language but also part of general human cognition.

To summarise, given their key assumptions and principles, cognitive linguistic studies represented a drift from formal approaches in two aspects: first, the basic assumptions about general cognitive abilities implied epistemic differences between Cognitive Linguistics and formal theories and models; and second, language being regarded as a reflection of patterns of thought, as well as part of general human cognition, implied leaving aside the modularised view observed in formal approaches. The following section introduces a more detailed description of the view of language held in Cognitive Linguistics.

2.2 Concepts, categories and symbols: the symbolic thesis of language

How is language regarded in Cognitive Linguistics? How is it related to thought? One of the main claims of this linguistic movement corresponds to what has been denominated ‘the symbolic thesis’. In regards to syntactic structuring and organisation, this thesis claims that language is constituted by symbols, briefly characterised by Evans & Green as “bits of language” (2006, p. 6)”. Langacker (1987) describes them as “symbolic assemblies” (Σ), where a phonological pole is associated with a semantic pole. It is important to highlight that, in these form-meaning pairings, the semantic pole corresponds to the conventional semantic content associated with the symbol, whereas the phonological pole corresponds to its related sound, spelling, sign or gesture (as in the case of non-verbal externalisations of language). This binary relationship between language constituents is originally based on Saussure’s (1916) notion of linguistic sign: consisting of an acoustic image and its corresponding semantic content, these constituents respectively correspond to the ‘signifier’ and ‘signified’, as illustrated in Figure 2.1. In the case of Cognitive Linguistics, nevertheless, this notion has been expanded to constructions larger than words – that is to say, including phrase and sentence structures – given the assumption that meaning is not only conveyed by lexical

items, but also by larger constructions and their grammatical functions. Such an assumption would give rise to one of the basic tenets of Langacker’s approach that “grammar is meaningful” (2008, p. 3).

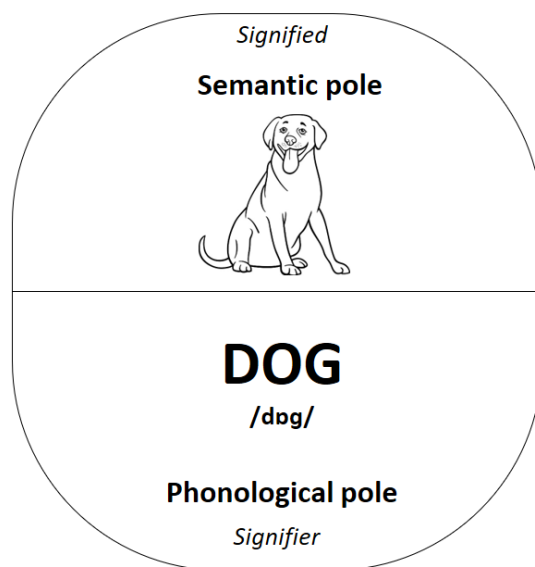


Fig.2.1: Symbolic assembly for [DOG]

Additionally, it is argued that, by means of the aforementioned assemblies, language performs a symbolic function, which is related to the encoding of complex ideas (Evans & Green, 2006; Langacker, 2008). At this point, it becomes important to understand the notions of *concept* and *conceptualisation*. By means of perception abilities such as sensation, perceptual organisation and identification, humans become aware of the world around them and are capable of integrating raw perceptual information into a well-defined mental representation whose meaning, in turn, is associated with a linguistic expression. This association between mental image and linguistic expression is what in Cognitive Linguistics is termed a “concept” (Evans & Green, 2006; Evans, 2007). These are reached through conceptualisation processes and may be regarded as the raw material for further development of the mental representation of reality. Apart from encoding and conveying meaning, language is used with various other functions that encompass the “interactive function”.

These include speech acts, expressivity (language is ‘loaded’ with speakers’ thoughts and feelings), creating frames of experience that serve to create and invoke certain background knowledge. The interactive function of language enriches and facilitates communication. However, symbols cannot cover the whole range of possible conceptualisations the human mind is capable of; rather, they can serve as guidelines as well as speakers’ encyclopaedic knowledge. In this light, symbolic units serve as access points to such kind of knowledge (Langacker, 1987, in Evans & Green, 2006).

2.3 Langacker’s theory of Cognitive Grammar

In general, it can be stated about cognitive approaches to grammar that, as with Cognitive Linguistics, these represent a shift from other approaches, to the extent that formal views about grammatical principles and concepts are rejected. One of the main cognitive approaches to this subfield corresponds to the one originally developed by Ronald Langacker. His Cognitive Grammar (abbreviated as CG) assumes that language in general, and grammar in particular, is not the expression of a specific module but of general cognitive processes. An important notion is that in this approach grammar will not only be understood as phrase and sentence structure; it will also comprise the organisation of the language system of language in speakers’ minds – ‘mental grammar’ – as well as the theory that accounts for such a system (Evans & Green, 2006).

As with other approaches, Cognitive Grammar adheres to the commitments guiding Cognitive Linguistics – that is, the generalisation commitment and the cognitive commitment described earlier in this section. Additionally, CG is guided by two additional principles: the first of these corresponds to the “symbolic thesis”; as described previously. Language performs a symbolic function of encoding concepts into symbolic assemblies, thus giving meaning a preponderant place in a theory of grammar. An important implication derived from the symbolic thesis is that, since the basic unit is an association between form and meaning, such assemblies cannot be treated nor studied separately. The study of grammar

from a cognitive perspective encompasses the whole range of assemblies that are to be found in language, both lexical and syntactical, and it also encompasses specific instances of language use as well as their abstract patterns. Moreover, the characterisation of grammar as meaningful is based on the idea of two types of meaning: one corresponding to specific instances of language use and one corresponding to their abstract patterns (instance meaning and schematic meaning, respectively). Thus, it is put forward that grammar and lexicon are located along a continuum. Figure 2.2 below provides examples of symbolic assemblies for lexical and grammatical units, respectively.

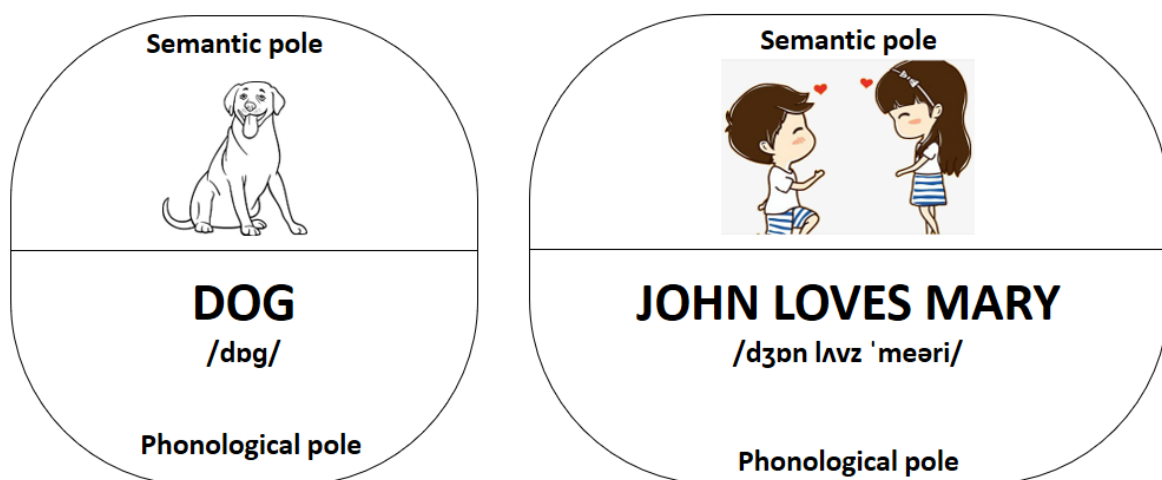


Fig.2.2: Examples of lexical and grammatical symbolic assemblies [DOG] and [JOHN LOVES MARY]

The second guiding principle of Cognitive Grammar consists of the “usage-based thesis”. Cognitive Grammar theory is essentially a theory based on usage; speakers’ knowledge of language is regarded as the generalisation of patterns found in instances of language use, called “linguistic usage-events”. Furthermore, Langacker (2008) distinguishes a special type of abstraction called “schematisation”, which refers to a higher level of abstraction of symbolic assemblies found in usage events. Schematisation of symbolic units, consequently, would give rise to “schemas”. On the other hand, “instantiation” of such

schemas would correspond to symbolic units as can be found in specific usage events; in other words, instantiations of a schema correspond to their specific elaborations (Langacker, 2008). Figure 2.3 below displays an example of a schema with two different instantiations. An implication that follows from this assumption is that the knowledge of a language is equivalent to its use, and no distinctions are held between what is called competence and performance in generative approaches.

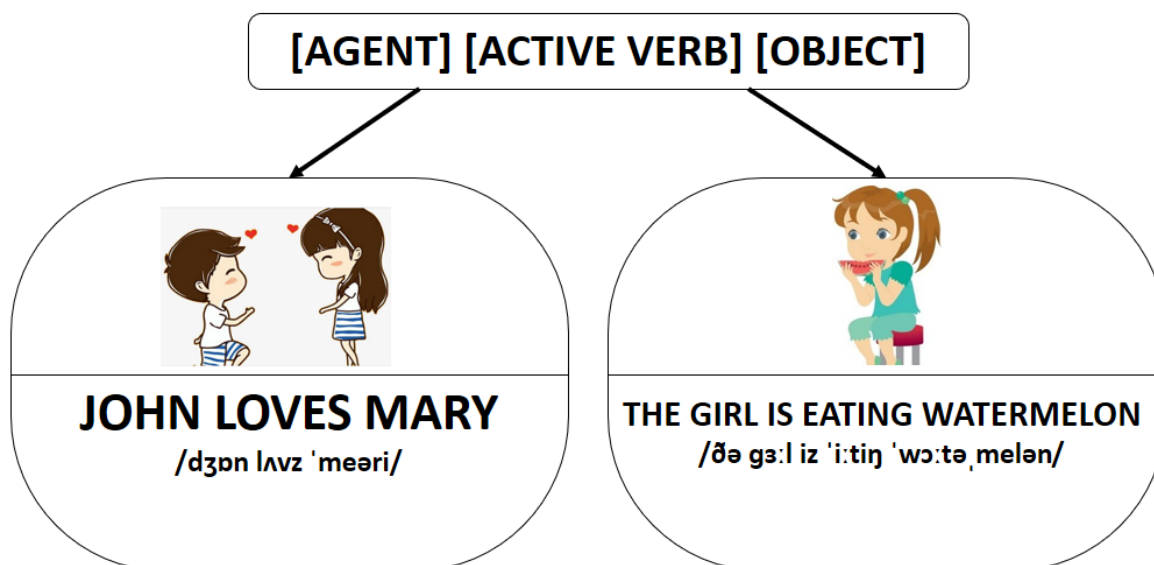


Fig.2.3: Example of instantiations of the schema [AGENT] [ACTIVE VERB] [OBJECT]

Given that Cognitive Grammar is formulated as a theory of language use, concepts such as “entrenchment” and “conventionalisation” become essential in the understanding of the conventionality of symbolic units. According to Langacker (2008), when a symbolic assembly becomes an entrenched unit in a language user’s mind, it has undergone an automatization process by means of repetition until little conscious monitoring is required. Likewise, conventionalisation refers to the process by which lexical items and constructions achieve the status of symbolic units among the members of a given speech community. At this point, it is worth mentioning the role of conventionality in the assessment of expressions

as well-formed or ill-formed (grammatical or ungrammatical, respectively). Although Langacker suggests that the limits between grammatical and ungrammatical units are “fuzzy at best and continually being adjusted as speakers push the limits in normal language use” (Langacker, 2008, p. 227), it is also claimed that the selection and activation of schemas holds an important role in assessment: a given symbolic assembly will be deemed as conventional, provided that it conforms to its appropriateness with the schemas activated for the usage event at issue. In addition, an assembly will be considered well-formed as long as it is involved in an elaborative relation with the schema it evokes. An instance of this phenomenon is presented in the noun phrase “tall giraffe” (op. cit. p. 228). Such an assembly is regarded as conventional since it is conceived as an elaboration of the schema [ADJ N] for noun modification in English. The same construction, in turn, would be regarded as ill-formed if it were presented as a prepositional phrase sanctioned by the schema [PREP N], which has not been activated for the construction at issue.

2.3.1 Construal

The conceptual content of symbolic assemblies in language comprises not only the propositional content of a construction *per se* and its meaning, but also the manner in which participants in an interaction encode as well as interpret such conceptual content (Taylor, 2002), that is to say, the mechanisms by which such content is presented. This idea can be compared with the viewing of a scene, where what is observed depends largely on the perspective the viewer adopts, what is focused on, and where to look. Similarly, by means of grammar, language users would adopt a given perspective to interpret the conceptual content of a construction, a phenomenon referred to as “construal” (Langacker, 2008). In addition, the fact that constructions can be construed in some way or another implies that there may exist alternative interpretations for the same conceptual content.

Langacker (2008) distinguishes four important aspects of construal, applicable to conceptualisations in any domain. The first of them corresponds to “specificity”, which refers

to the degree of detail a construction is rendered. Also termed “granularity” or “resolution”, specificity entails the elaboration of one schematic expression into a more specific one, and it may occur at both lexical or syntactical levels. Below are examples of constructions elaborated at different degrees of specificity:

- (a) rodent → rat → large brown rat → large brown rat with halitosis
- (b) hot → in the 90s → about 95 degrees → exactly 95.2 degrees” (from Langacker, 2008, p. 56)

The converse notion corresponds to “schematicity”, which refers to coarse-grained descriptions. Both phenomena contribute to the formation of categories in hierarchical relations which, in turn, contribute to the assessment of conventional units as well-formed or ill-formed: “An expression is judged well-formed to the extent that it bears relationships of elaboration (rather than extension) to the schemas invoked to categorize it.” (Langacker, 2008, p. 57)

The second of the aspects of construal corresponds to “focusing”. It can be briefly described as an arrangement of foreground and background information for its linguistic expression. When focusing is at play, the set of cognitive domains (that is, the manner conceptual content is organised) that are more central will be activated, that is, foregrounded, especially in relation to more peripheral domains. It is not possible, however, to activate all available domains at once, which means that focusing is gradual. Additionally, another important consideration is that, whereas a given domain may be central and foregrounded in one occasion, such domain may remain in the background in another (Langacker, 2008).

At this point, it becomes important to note that the distinction of foreground and background can be considered an aspect of general cognition insofar as it is a type of figure-ground organisation: generally speaking, this sort of arrangement involves a precedent idea that allows for the rise of another; in other words, expressions set in the foreground invoke speakers’ knowledge that serves as background. Moreover, Langacker (2008) also suggests

that foreground and background organisation is present in different aspects of discourse. For instance, descriptions of characters and situations may serve as background for a storyline in narration; or comments that are backgrounded against content in an interaction. The background information shared by all participants that serves as basis for an interaction corresponds to the “Current Discourse Space” (CDS), and it is an important concept for information arrangement. Foregrounding and backgrounding are also at issue in the compositional path of composite constructions: these can be said to be foregrounded against their component structures at lower levels – which, in turn, remain backgrounded.

The third aspect of construal to be herein discussed corresponds to “prominence”, which is basically seen as an asymmetry in language. This notion can be understood as a strong type of foregrounding in the sense that any construction deemed as prominent (or salient) stands against a background. Langacker (2008) distinguishes two related but different types of prominence, namely “profiling” and “trajector/landmark alignment”. An expression’s “profile”, which is a particular structure in a construction, corresponds to a specific focus of attention from a conceptual body – denominated the “conceptual base” – and can be constituted by a thing or a relationship. Whereas the former notion may include physical objects, people, animals, places or abstractions (among others), the latter may include events and their processual nature (Langacker, 2008).

While it can be true that several expressions have only one focus of attention, it is also possible to find expressions where there exist different degrees of prominence. In such cases, the most prominent focus will be referred to as the “trajector” (tr), whereas the “landmark” (lm) will correspond to a secondary focus of attention. In expressions with only one focus of attention, the trajector will correspond to the default primary focus. The distinction of trajector and landmark becomes necessary to differentiate expressions that can profile the same relationships but hold different meanings because of different choices of trajector and landmark (Langacker, 2008), a phenomenon that is particularly true in the case of some converse prepositions, as with ‘above’ and ‘below’ seen in the following examples:

- (i) The lamp (tr) is above the table (lm).
- (ii) *The table (tr) is below the lamp (lm). (from Langacker, 2008, p. 71)

Lastly, the fourth dimension of construal is constituted by “perspective”, understood as the viewing arrangement of conceptualisations. Such an arrangement can be described, in general terms, as the relation between the conceptualisers (that is, speakers and hearers) and what these conceptualise. According to Langacker (2008), a common arrangement in everyday conversational situations corresponds to one where both conceptualisers are located together in the same location, from where they can observe events unfolding before them. This type of arrangement would have the default-case status and is present in the case of simple declarative sentences. However, an important quantity of constructions, given their non-declarative nature, cannot adopt the default arrangement. Among this group, constructions for conceptualisations that are hypothetical, future or false as compared to real events can be regarded as departing from the canonical arrangement. Other non-canonical views are involved in speech act situations or in cases of what is termed ‘spatiotemporal displacement’ (Sadock, 1974; cited in Langacker, 2008), observed in such contexts as a phone call or instructions in labels.

An important element of the viewing arrangement is the “vantage point” (VP). In default settings, this vantage point would correspond to the actual location of conceptualisers. Nevertheless, it is interesting to highlight that the vantage point may not be necessarily an actual location: especially for linguistic purposes, such point refers to an imaginary location. Situations are conceptualised and, accordingly, linguistically expressed adopting different vantage points as reference and subsequently construed in various ways, as illustrated in Figure 2.4:

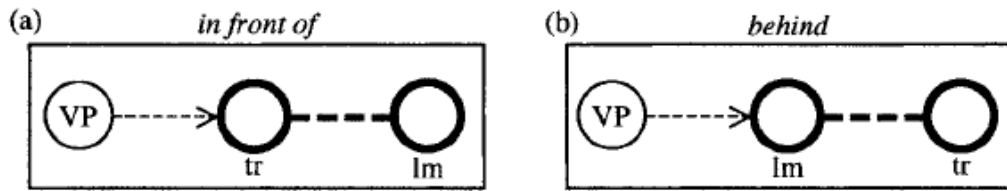


Fig.2.4: Vantage points (VP) for the prepositional expressions “in front of” and “behind”

(a) VP1: The rock (tr) is in front of the tree (lm). The tree (tr) is behind the rock (lm).

(b) VP2: The tree (tr) is in front of the rock (lm). The rock (tr) is behind the tree (lm).

(from Langacker, 2008, p. 76)

Other important aspects of construal in Cognitive Grammar theory correspond to those of grounding and the subjective/objective construal of expressions. However, given their importance for the present research work, these will be covered in more detail in the following section.

2.3.2 Grounding

The notions of “ground” and “grounding” in Cognitive Grammar have been introduced in order to account for the relationships among profiled entities, both things and relations, and their corresponding place in relation to time and reality. While “ground” denotes the speech event, its participants and its immediate circumstances (namely place and time of speaking), grounding elements serve the function of eliciting the interaction of entities with the ground. Langacker (2008) states that, if not for grounding mechanisms present in language as would be in the case of ungrounded entities, sentences would be still coherent yet “common to innumerable situations that differ not only in detail but also, and

more importantly, in how they relate to the speech situation” (p. 259). The author illustrates this by presenting what he denominates a “skeletal clause” such as “girl like boy”, which is considered to be present in innumerable situations such as “the girl likes that boy” or “this girl may like some boy”, among others (ibid). Thus, it is put forward that the identification of the ground as well as its grounding elements is useful to distinguish different relations profiled in a single situation that may otherwise remain undifferentiated. The present section will account for grounding and its dimensions, referred to as “subjectivity”, “objectivity” and “epistemicity”, whose importance lies in the idea that conceptualisations will be related to the ground in terms of the parameters suggested by these notions.

When discussing grounding, it is important to keep into consideration the idea that the notions of subjectivity and objectivity may not be explicitly related to the ground, since grounding elements do not refer to it directly. Thus, it can be stated that grounding is, generally speaking, an implicit phenomenon. Langacker (2008) provides a contrast between grounding expressions such as “this” or the -ed morpheme for English past tense – which perform the function of indicating proximity to the speaker and past speaking time, respectively – and “close to me” or “before now” as their non-grounding equivalents. The main difference between both types of expressions would be that the latter establish a direct and explicit relation to the entities profiled, whereas the former establish the same relation albeit in an implicit manner. Likewise, the author provides an explanation of both subjectivity and objectivity by establishing an analogy with an onstage performance, where the entities profiled in sentences take place and “the ground remains covert” (p. 260). Moreover, the author makes a distinction between the “subject (S)” and the “object (O)” of conceptualisation or, in other words, the conceptualiser and what is conceptualised in a usage event, as illustrated in Figure 2.5 below; additionally, he notes that these concepts should not be confused with those of subject and object used in a traditional sense in grammatical sentence analysis, but they should rather be understood in terms of conceptualisation. When a subject is construed subjectively, this implies that it becomes a presence that displays minimal awareness or, in other words, it becomes an implicit conceptualiser. Conversely, the object is construed objectively when it is brought “onstage”, clearly observed and well-delimited in relation to the observer and the events profiled. Instances of this phenomenon

can be found in cases when the conceptualisers are construed with partial objectivity by means of personal pronouns, or in cases when some reference to the situation settings are made, as in expressions such as “here”, “now” or “tomorrow”.

The notions of subjectivity and objectivity can be seen not as opposite poles but rather as a matter of degree, as there may be cases (and indeed there are) where subject and object may not be construed totally subjectively or totally objectively, but somewhere in between. It is important to mention that, in a broad sense, any linguistic expression that denotes more than just the minimal awareness of the ground can be regarded as a grounding element; in a narrower sense, nevertheless, grounding elements will consist of those expressions that neither profile the ground (or an aspect of it) nor the grounded entity. Furthermore, grounding elements are expressions with schematic meanings and therefore can be located at the grammatical pole of the lexicon-grammar continuum (Langacker, 2008).

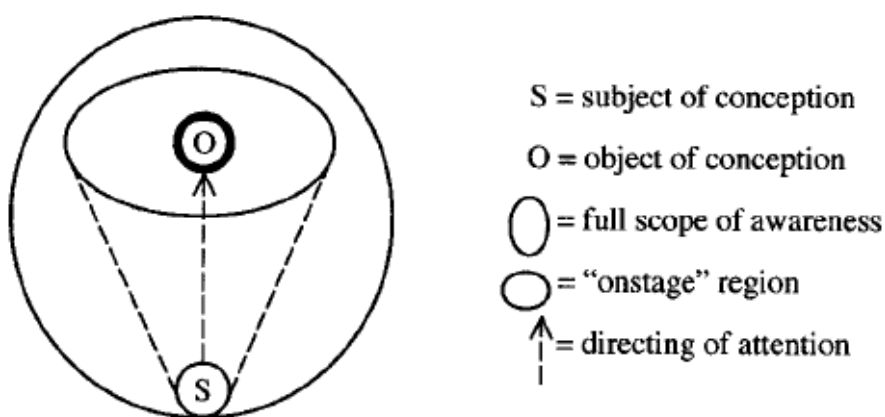


Fig.2.5: Representation of subject and object in a conceptualisation (Langacker: 2008, p. 260)

The phenomenon of grounding is present in both things and relations that are profiled, since any of them can act as objects of conceptualisation. Consequently, it is possible to mention two types of grounding mechanisms: *nominal grounding* and *clausal grounding*. Nominal grounding is at play in the case of nominal constructions, where the main concern of grounding will be related to identification of things profiled. Determiners, articles, pronouns and quantifiers are some examples of nominal grounding mechanisms for the English language. Meanwhile, clausal grounding is at issue in the case of finite clauses and,

unlike nominal grounding, is relevant to the occurrence of events. More specifically, clausal grounding is concerned with “the status of events with respect to their actual or potential occurrence” (Langacker, 2008, p. 296). As far as English is concerned, examples of clausal grounding elements would include verb tense endings and the auxiliary and modal verb system.

Quite much related to the notion of grounding is the concept of epistemicity. Generally speaking, this notion is related to the manner things and relationships are experienced in relation to the ground as well as how close or distant from reality they are perceived; in other words, epistemicity is related to the certainty about the identification of the things or the occurrence of the events grounded. Depending on whether nominal or clausal grounding is being discussed, epistemicity will be manifested in a number of ways. If nominal grounding is into discussion, then epistemicity would refer to identification of entities, a task that is achieved by means of the choice of different nominal grounding elements mentioned previously. In parallel, in relation to clausal grounding, what is at issue is whether the events grounded are considered as facts or possibilities, and to what extent. In that case, epistemicity in clausal grounding would be achieved by means of the different tenses and modal verbs existent in English, as will be explained later in this section.

Also relevant in this case are the distinctions of reality made by Langacker (2008). In general terms, this will comprise anything that can be included as the content for a grounded clause: not only physical events, but also social and mental phenomena, which can also include fictitious worlds and realities that can, however, be conceived as real by subjects. Giving a finer-grained description, the aforementioned events (real or imaginary) will become part of “conceived reality” (R_C) as long as conceptualisers accept them as established knowledge. A portion of conceived reality will comprise the current events accepted as real and will be immediately accessible, termed “immediate reality”. Other portions of reality worth noting are those corresponding to “potential reality” and “projected reality”. Both of them can be regarded as an extrapolation of future course of events, and are plausible to become part of reality. On the other hand, events that are conceived outside reality are regarded as “unreal”. Figure 2.6 below displays Langacker’s representation of reality:

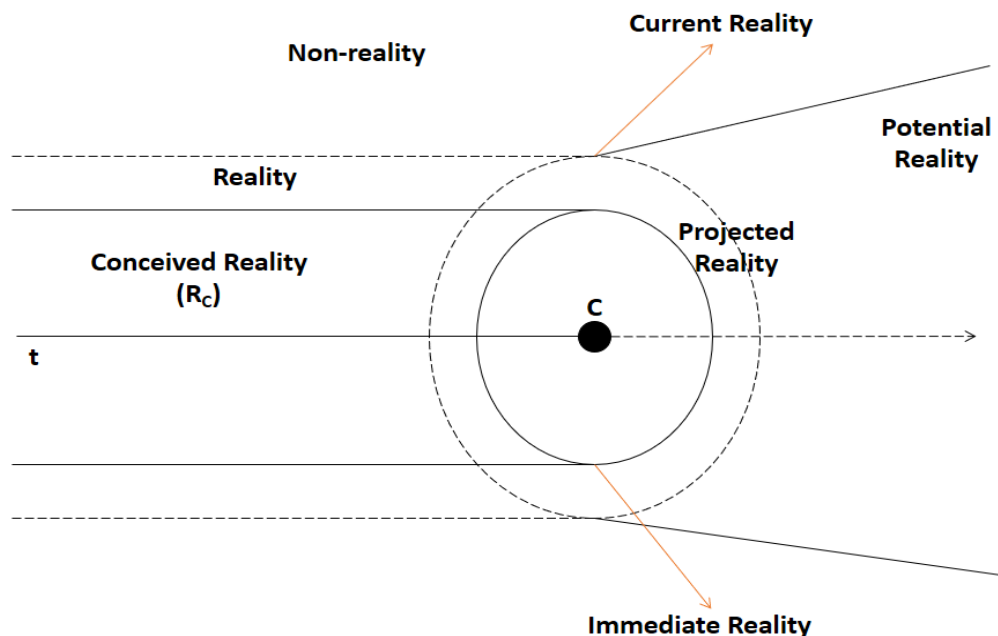


Fig.2.6: Representation of reality and its sub-types (adapted from Langacker: 2008, p. 301)

In the present section, it has been put forward that the English clausal grounding system consists essentially of verb tenses and the modal verbs. More precisely, it can be claimed that the notions of tense and modality are at issue regarding clausal grounding. Tense, the first of these notions, is realised in English by means of a binary opposition constituted by the present and the past. The present in English corresponds to the unmarked form – including -s for the third person singular –, and events grounded in present time would be considered as part of the conceptualisers' current reality. The past tense, on the other hand, is marked by -ed (and its variations in the case of irregular past forms). The tense system in English can be considered to perform the function of grounding conceptualisations in terms of epistemic distance or proximity: the present represents the only moment directly accessible and is, therefore, proximal to the conceptualiser's current reality. On the contrary, although the past represents an apprehension that continues to be part of reality, it is no longer present in the conceptualiser's field of perception; in other words, it is no longer readily accessible in terms of current reality: past events are, instead, part of the conceived reality and more distant in terms of epistemicity (Langacker, 2008).

The tense system is closely connected to that of modality. The grounding system for modality in English consists of, again, a binary opposition represented by the absence or presence of modal verbs, which correspond to unmarked and marked forms, respectively. When these grounding elements are at play, it is implied that an event or process is conceived as unreal by the subject and thus associated to a region described by Langacker as *nonreality* (2008). More precisely, an event grounded by means of modals can be conceived as potentially prone to actual occurrence. Apart from the specific meaning of each modal verb in English, it can be generally stated about them that they are force-dynamic and future-oriented, given that some propensity (potency) to perform an action in the future time is profiled.

2.4 Conditional constructions in English

Conditional constructions can be briefly defined as sentences in which an expected course of events is expressed in terms of a previous condition: in order for a given event to take place, certain circumstances — conditions — must be given previously. In other words, conditional constructions can be regarded as a linguistic expression of conditionality, which, in turn, is part of more general conceptualisation processes. Such conceptualisations would allow language users to configure a variety of scenarios, real or unreal, and visualise possible or impossible results accordingly. As Traugott et al. (1986) propose, conditional sentences reflect the human ability to reason about alternative situations and imagine circumstances different to reality. Regarding their syntactic organisation, these constructions are constituted by a dependent clause expressing the condition, embedded in a main clause that expresses its result in various degrees of possibility. In logical terms, the surface structure of a conditional construction adopts the “if P, then Q” structure (Comrie, 1986; Johnson-Laird, 1986), where P corresponds to the previous existing condition (or non-existing, as will be accounted for later in this section) and Q corresponds to its respective result. In logic, P and Q also receive the names of “antecedent” and “consequent”, respectively. Conditionals are marked in

different manners across languages; in the case of English, it is marked by the conjunction “if” in the antecedent.

Given the variety of scenarios that can be expressed by means of conditionals, however, providing an appropriate definition of these constructions and their representative conjunction in English “if” may result in a challenging task. As far as conditional surface structure is concerned, Wierzbicka (1997) claims that the “if P, then Q” structure is not appropriate to account for conditional constructions as found in natural languages. According to this author, the aforementioned structure does not clarify the relation between antecedent and consequent, since both parts can be true, false, or one of them can be true while the other is false. Additionally, these options would represent the only kind of relation possible between the constituent clauses. What can be implied from this is that both antecedent and consequent may be totally unrelated to one another as long as they hold the relation expressed by means of the surface structure referred to above, as in the following example (from Comrie, 1986, p. 80):

“If Paris is the capital of France, two is an even number.”

The conjunction “if” can also be regarded as problematic inasmuch as attempts have been made to define the conjunction in terms of, or as synonyms with, causal conjunctions. Wierzbicka (1997) argues, however, that this is not necessarily the case; in other words, the relation is not always present. In the example below, the author explains that the situation expressed in the consequent is not necessarily conceived as a result of that action in the antecedent. Instead, the latter will be given only provided that the circumstances of the former are given:

“If he invites me to dinner, I will not go.” (1997, p. 20)

Given the difficulties to meaningfully define and describe “if” in terms of more basic terms, this conjunction can be regarded as what Wierzbicka (1997) denominates a *conceptual*

primitive. Nevertheless, it does not mean that the conjunction at issue is not polysemous. According to the author (1997), a distinction can be made between the “primitive if” and its other uses: whereas the former refers to the conjunction used to mark the antecedent of conditional constructions, the latter may include either the use of “if” embedded in indirect questions or as part of “pragmatic conditionals”, more connected to speech acts, as in the statement “If you are hungry, the fridge is in the kitchen” (p. 21). Additionally, the author argues for the existence of allolexes for “if”, as would be the cases of “should”, “unless”, “otherwise”, or “on condition that”, among others.

How can conditional constructions be understood and interpreted? This task may result challenging, given, in the first place, the variety of functions a conditional construction can perform, and, in second place, discrepancies between its form and meaning. An attempt to understand the meaning of conditional constructions would consist of the “branching-futures” model (Tedeschi, 1981; cited in Dahl, 1997). According to this proposal, time (t) and the events therein unfolded are conceived as having a point in past and multiple possibilities at one specific point, and represented in a tree-like scheme as in Figure 2.7. Such a representation would allow, in the case of a conditional situation, to go backwards in the representation and then forwards again following an alternative course of events.

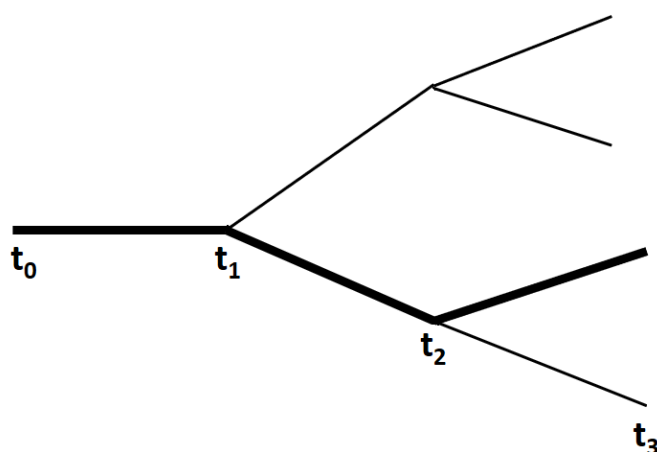


Fig.2.7: The “branching-futures” model (adapted from Tedeschi, 1981; in Dahl, 1997, p. 102)

This model could be especially applicable in the case of counterfactual conditionals, as in following sentence: “If Germany had invaded England, they would have won the war” (Dahl, 1997, p. 102). In this example, it would be possible to visualise an alternative condition – returning to the past, metaphorically speaking – as well as an alternative future in terms of such past conditions; in the case of this example in particular, an alternative past condition would be that Germany invades England, and possible future alternatives can be visualised therein. In any case, it is important to highlight that all types of alternative situations pictured, both present and past, can be deemed as unreal.

Similarly, Werth (1997) recognises the complexity of the interpretation of conditional constructions in English. According to this author, such complexity is due to the fact that the verb tenses used in the constituent clauses in a conditional construction present ambiguous meanings, claiming for an asymmetry between the form and the meaning of conditionals. He proposes that the antecedent of a conditional construction performs the function of configuring situations. These are defined as conceptual spaces that are abstract to some degree, with space being the most fundamental dimension. Space, in turn, comprises the basic parameters of location, direction and distance, measured in relation to a starting point that generally corresponds to the speakers’ point of view (referred to as the ‘ego’). Thus, it is possible to speak about spatial distance or proximity, as well as other points (up, down, behind, in front) in relation to the speaker’s starting point and the direction these points adopt, as displayed in Figure 2.8.

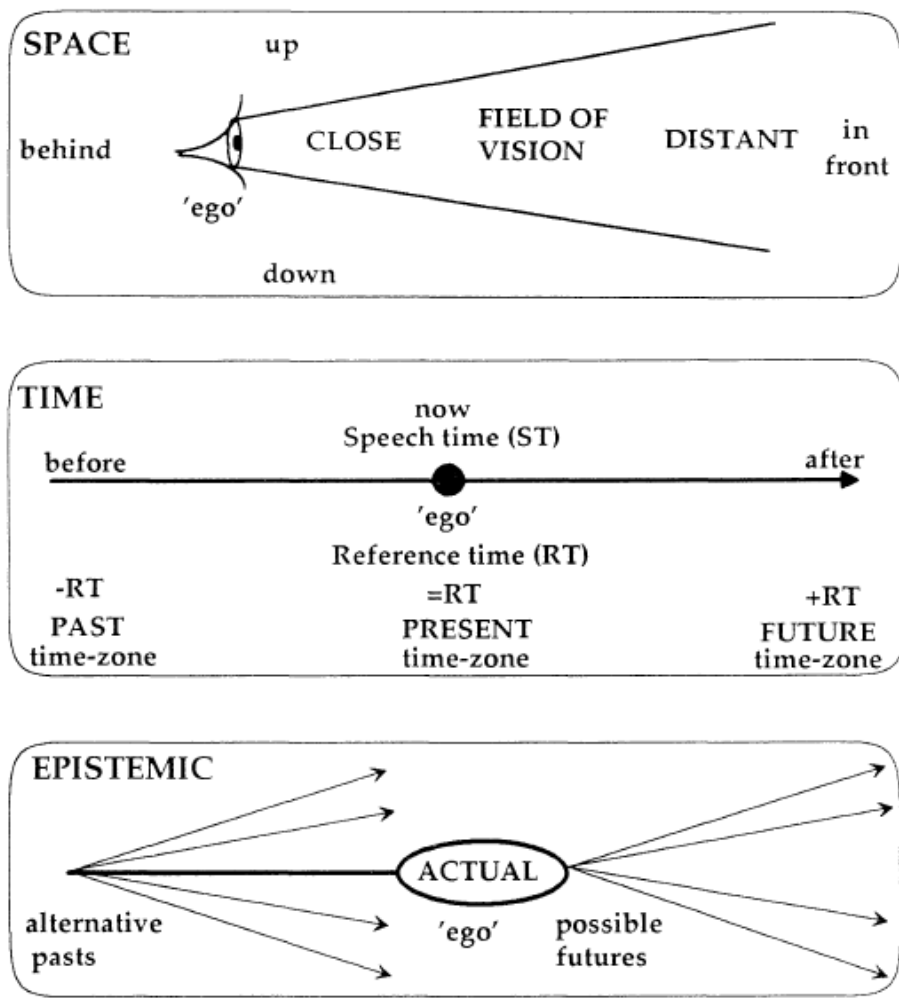


Fig.2.8: Werth's model for interpretation of conditionals (1997, p. 249)

Such space configuration can subsequently be transferred in terms of time, where the starting point will correspond to the speakers' current time. Analogous to the spatial configuration described earlier, the relative distance from the starting point will be described in terms of time as past or future, also taking the direction of such distance into consideration (past time or future time). Finally, this author proposes the extrapolation of both the spatial and temporal configurations into an epistemic domain. In this case, the speakers' starting point would be equivalent to the 'actual', corresponding to the sense of what is conceived as true at the time of speaking. Originating from the 'actual' are a countless number of future

possibilities and, in a similar manner, the ‘actual’ is originated from one of multiple possibilities in past time. The author also suggests about the importance of common background knowledge and inferencing among speakers’ in decision-making and the probabilities for a given outcome.

2.4.1 A typology of conditional sentences

Due to the variety of functions and contexts of use of conditional constructions in English, one of the main difficulties in accounting for these sentences can be related to the lack of consensus in terms of criteria for their classification. Thus, in the present section, three classifications from literature on such constructions are reviewed, based on three different criteria: factuality degree, relation between the constituent clauses and domain of use.

2.4.1.1 Factuality degree

According to Taylor (1997), this classification is based on the degree of factuality of the whole conditional construction as well as its constituent clauses; that is to say, the extent to which the circumstances expressed in the antecedent are conceived as real or possible and its corresponding expression of results in the consequent. This can be regarded as one of the most common typologies adopted for research as well as instruction purposes, reflected in its constant presence in ESL and EFL instructional material. Starting from this criterion, conditional constructions can be classified into three types: “factual”, “hypothetical” or “counterfactual”.

In the case of *factual* constructions, the conditional sentence – as a whole as well as each constituent clause – and its content are presumed to be real or true. Therefore, factual conditionals can be said to represent what is real. In terms of syntactic configuration, these constructions include an action or state expressed in present tense for the antecedent and the use of present or future verb tenses for the consequent (the subordinate clause and the main clause, respectively). Examples of such conditionals are the sentences “If prices go up, I’ll sell my car” and “If prices go up, I sell my car” (Werth, 1997, p. 245).

The second type of conditionals following the same criterion corresponds to *hypothetical conditionals*, where the content of the constituent clauses is regarded as a possibility that is neither according to reality nor against it. In other words, the situation is potential to occur, since speakers recognise the existence of a possibility. As far as syntactic structure is concerned, hypothetical conditionals include past tense in the antecedent and a modal verb together with a base verb in the consequent. The modal verb that is generally used is ‘would’, with ‘should’, ‘could’ or ‘might’ as alternatives. An example of a hypothetical conditional would be the following sentence: “If prices went up, I’d sell my car” (Werth, 1997, p. 245).

Finally, the third conditional type herein described corresponds to *counterfactual conditionals*. In this case, the situation presented in these constructions is contrary to reality, or untrue; such situations are not possible. Counterfactual sentences express what is considered as unreal. In syntactic terms, these conditionals include past perfect tense in the antecedent, whereas the consequent contains a modal verb – ‘would’ or one of the alternatives presented in the previous paragraph – in combination with the perfect form of the verb. As an example, the sentence “If prices had gone up, I’d have sold my car” (Werth, 1997, p. 245) corresponds to a counterfactual conditional.

A possible explanation for the fact that this classification is the most widely used among researchers and ESL/EFL instructors could be given by its relative straightforwardness and consistent examples of each conditional type. In addition, it is possible to establish a gradient scale in terms of the probability for the circumstances introduced in the antecedent to actually take place (Taylor, 1997). Nevertheless, this typology

is not exempt from some setbacks: in some situations, the same conditional construction can be felicitously interpreted either as factual or hypothetical, or as factual or counterfactual, as in the following case from Taylor (1997):

“If he had said that (and we heard him say it!), he’s a liar.”

“If he said that, he’d be a liar.” (p. 302)

On the basis of these cases, it has been stated that information retrieved from context can be useful to interpret the statements appropriately. At the same time, however, this type of information is not part of what has been linguistically coded in the constructions. Likewise, this extralinguistic context would be necessary to assess the appropriate degree of hypotheticality from the gradient scale suggested above.

2.4.1.2 Relation between constituent clauses

Along with the classification in terms of the degree of hypotheticality presented above, other attempts, based on different criteria, to categorise conditional constructions have been made. For instance, Athanasiadou and Dirven (1997) propose a classification of conditional sentences based on the type of relationship between each constituent clause, thus categorising conditional sentences into three types: “course of events”, “hypothetical” and “pragmatic” conditionals.

Course of events conditionals comprise those constructions in which the event expressed in the antecedent co-occurs with that expressed in the consequent. Similarly, the two clauses are dependent on one another. The relationship between both clauses is characterised as factual, a “‘whenever’ relationship” (Athanasiadou & Dirven, 1997, p. 62).

An instance of a course of event conditional would be the following sentence: “If there is a drought like last year, the eggs remain dormant” (p. 61). According to the authors, a course of events conditional occurs more often in scientific or counselling contexts.

Hypothetical conditionals would correspond to those constructions in which the antecedent and the consequent are in a causal dependency relation in such a way that the latter will be given only after meeting the conditions of the former. An instance of a hypothetical conditional is the sentence “If the weather is fine, we’ll go for a swim” (Athanasiadou & Dirven, 1997, p. 61). As opposed to the first type of conditionals presented in this section, the relation between the clauses in these conditionals is a non-factual one. Moreover, it is important to highlight that the denomination “hypothetical” in this classification overlaps with the denomination from the previous typology, since it includes the three conditional types reviewed earlier (factual, hypothetical and counterfactual conditionals).

Finally, *pragmatic conditionals* comprise those sentences that were not covered in the previous two classifications. More specifically, these constructions consist of a dependency relation that is more indirect as compared to the previous types: the addresser makes an “interactional move”, often implied, by means of a pragmatic conditional, which can solve a situational problem, as in the following examples: “If you’re thirsty, there’s food on the fridge”, “If there’s anything you’d like me to explain, fire away”, “If he gives you any trouble, Fraser, break his arm” (Athanasiadou & Dirven, 1997, pp. 61, 69).

An advantage of this classification is that the category of pragmatic conditionals encompasses constructions that are not covered in the previous categories. Nevertheless, since pragmatic constructions deal with any other conditional not included previously, the range this type comprises may be not clearly delimited or excessively heterogeneous; for instance, the pragmatic conditionals given above can be classified as two offers and a suggestion, respectively. Thus, ambiguity in the classification and understanding of pragmatic constructions makes this classification a potential difficulty in terms of the instruction of conditional sentences (Dolgova, 2012).

2.4.1.3 Domain of use

The last classification of conditional constructions goes according to the criterion of domain. According to this criterion, the versatility of these sentences and their functions can be explained in terms of the configuration of various mental spaces and their interpretation, accordingly (Dancygier & Sweetser, 2005). Thus, three domains give rise to three types of conditionals: “content”, “epistemic” and “speech act” conditionals.

In the case of *content conditionals*, Dancygier and Sweetser (2005) state that the speaker sets up a mental space of content, which can be a possible state of affairs – in other words, the situation at the time of speaking. Content conditionals, then, would perform the function of conveying a prediction from the situation; more particularly, the prediction is conveyed in the consequent, whereas the antecedent sets up the situation. The following sentence is an example of a content conditional: “If I tie my handkerchief around it, it’ll stick” (p. 16). At this point, it becomes necessary to remark the fact that content conditionals may include those constructions labelled as factual, hypothetical or counterfactual from the first classification criterion.

The second category in this typology corresponds to *epistemic constructions*, which correspond to an inference made by the speaker in an epistemic mental space. This inference generally involves reasoning from a known cause to a probable effect or vice versa, being the effect-to-cause reasoning more frequently used in these conditionals (Dancygier & Sweetser, 2005). The sentence “If you materialize in a Port, then you don’t own a House” (p. 17) can be regarded as an example of an epistemic construction. Epistemic conditionals, however, can be mistakenly taken for content conditionals. The authors explain that, whereas the latter account for a causal relationship between two states of affairs (accordingly expressed by means of the constituent clauses), the former establish the causal relationship between the speakers’ beliefs about an effect and its possible cause.

Lastly, the third category in this typology corresponds to *speech-act conditionals*. In this case, rather than a mental space, what is configured is a discourse context, where the

speakers express their beliefs about the speech act situation in itself. This category partially overlaps with Athanasiadou and Dirven's pragmatic conditionals in the sense that interaction among speakers becomes a preponderant aspect for the configuration of the constructions. "If I don't see you before Thursday, have a good Thanksgiving!" (Dancygier & Sweetser, 2005, p. 16) can be counted as an instance of a speech-act conditional.

In general terms, it can be stated that Dancygier and Sweetser's classification of conditional constructions is more comprehensive than the previous typologies herein reviewed, insofar as it discusses different contexts and their configurations, thus encompassing a wider variety of constructions. However, some of the terminology ("mental space", "epistemic", "speech act") used may be considered as unfriendly for an ESL/EFL environment. In addition, despite its advantages, this classification has not been widely used for pedagogical purposes. For research purposes as well as its preponderance in learning contexts and instructional material, this work is focused on the classification of conditionals according to their degree of factuality, as will be explained in the methodology section.

2.5 Description of conditional sentences in an EFL context

A major issue in existing accounts of conditional sentences in EFL reference and pedagogical material is, broadly speaking, an apparent oversimplification of the information for such constructions. The present section describes some of the setbacks found in the explanations offered.

An aspect that can serve as a starting point could consist of the classification of conditional constructions. Below is a summary chart adapted from Werth (1997), where factual, hypothetical and counterfactual conditionals are labelled as Conditionals I, II and III, respectively:

FORMAL TERMINOLOGY (ESL/Traditional)

	Antecedent	Consequent
Conditional I	If prices go up, <i>Present simple</i>	I'll sell my car. / <i>Future Simple</i> I sell my car. <i>Present Simple</i>
Conditional II	If prices went up, <i>Past simple</i>	I'd sell my car. "Conditional"
Conditional III	If prices had gone up, <i>Past Perfect</i>	I'd have sold my car. "Conditional Perfect"

Table 1: Summary chart for conditionals in ESL/EFL (adapted from Werth 1997, p. 245)

In the first place, the classification above can be regarded as simplified to a great extent, since no explanation is given about each type of conditional sentences nor the criteria followed for such a classification. In addition, it essentially focuses on verb tenses, leaving aside accounts for meaning of the constructions either as a whole or in terms of its constituents, neither any reference is made regarding the different situations and contexts in which a conditional construction may be used. It also becomes important to highlight that, in the case of hypothetical conditionals (Conditional II), the labelling of the verb tense is not only left unexplained but it may even be considered as misleading: although the verb tense used corresponds to past simple, this conditional type is said to express an unreal or imaginary situation in which "the meaning is present", as described in Murphy's Grammar in Use (2004). Therefore, it can be stated that in the traditional ESL classification of conditionals no conceptual motivation for the constructions is shown, either for all of the constructions in general or for the specific verb tenses at issue. Furthermore, it can be suggested that there exists a dissociation between form and meaning in the typology herein discussed (Dolgova, 2012).

Secondly, from an examination of ESL/EFL material such as the reference book mentioned above (Murphy, 2004) it is possible to describe explanations on conditionals provided as essentially superficial. The representation of the mentioned constructions is generally schematic and organised in isolated pieces of information (often organised in lessons or study units per each conditional type), thus restricting interpretations of conditionality as a general conceptualisation process. Another difficulty observed is that, although the reference material studied provided plenty of examples where conditional constructions are at use, there are no further comments on the motivation for the constructions, as mentioned above. In addition, this approach to conditionals can be deemed as prescriptivist, since explanations display a focus on grammatical form assessed as correct, also showing what should not be used; even though the use of correct forms may not be considered as a shortcoming per se, the problem lies in the lack of treatment of the meaning of conditionals, which is made evident through the superficial treatment of linguistic context.

Despite these difficulties, however, the traditional typology of conditionals continues to be widely adopted in ESL/EFL contexts (Dolgova, 2012), as demonstrated in the wide variety of reference material and its subsequent incorporation in EFL course syllabuses. A possible explanation for this may be related to classroom management and the feeling of 'real instruction' by students (Graus & Coppen, 2016). Nevertheless, it also becomes reasonable to conclude that new methodological tools are needed, given the necessity to develop teaching strategies that sanction a treatment of conditional constructions without ignoring their conceptual motivation.

Chapter 3

Theoretical Framework

3.1 Towards a cognitively-oriented treatment of English conditional sentences

As reviewed in the previous section of this research work, traditional rule-based approaches to grammar have been widely accepted and adopted into pedagogical grammars. However, a series of shortcomings could be highlighted, the first of which is related to the degree of arbitrariness present in traditional approaches. These can be deemed as arbitrary in the sense that, apparently, they do not display general principles that account for the grammatical rules therein exposed (Bielak & Pawlak, 2013). This implies, therefore, that rule-based approaches would not include comments about the conceptual import of grammatical features. Another issue reported concerns the imprecisions found in traditional descriptions, reflected in linguistically hedged grammatical rules including statements with “usually” or “normally”. It is also suggested that there exist exceptional cases to the general rules that, however, are not specified (Bielak & Pawlak, 2013; Dolgova, 2012). Finally, a third important shortcoming described in reference to traditional approaches to grammar is related to the lack of pictorial representations that illustrate the semantic content of grammatical features, (Bielak & Pawlak, 2013).

On the other hand, cognitively-oriented approaches have been characterised as displaying a number of advantages in relation to the shortcomings mentioned above. Among those advantages, it is suggested that cognitively-based approaches display unifying principles and thus avoiding exceptions usually formulated together with grammatical rules. In addition, comments are included regarding the conceptual content of the explanations of such rules, which implies that the imprecisions observed in rule-based approaches are avoided in the case of cognitively-oriented descriptions; finally, pictorial representations and diagrams are extensively used in the case of cognitively-oriented approaches, thus enhancing explanations about grammatical features (Bielak & Pawlak, 2013). From observation of features of this kind, it is plausible to assume, then, that a cognitively-oriented approach to

grammar could be more pedagogically effective as compared to a rule-based treatment. However, an important difficulty found in the former corresponds to the terminology used, as suggested by Bielak & Pawlak (2013). According to the authors, Cognitive Grammar jargon may seem too complex and abstract for a teaching environment, in contrast with traditional terminology which may be more familiar to EFL learners.

Among research works concerning the application of Cognitive Grammar theory into the EFL classroom, it can be generally stated that there exist few studies available that deal with this issue. Instances of such works correspond to studies regarding metaphor and metonymy, modal verbs, prepositions or tense and aspect in English, among others (see Littlemore, 2009; Tyler, 2012; Bielak & Pawlak, 2013). Among such studies, Dolgova's (2012) research work is one of the few studies available that focuses specifically on the application of Cognitive Grammar into the teaching of English conditional sentences. This author makes a contrastive study between a rule-based and a cognitively-oriented approach in relation to the teaching of the constructions at issue, constituting an important contribution to studies of this type. However, the availability of such research works continues to be limited.

Thus, from the observations made above, it becomes necessary to postulate a new treatment of conditional sentences for EFL purposes. Such a proposal needs to serve, in the first place, as basis for the development of new methodological tools for new teaching strategies. In the second place, suggestions for a new treatment of conditional sentences need to include principles and concepts in accordance with Cognitive Grammar, such as construal and clausal grounding, discussed in the previous chapter of this research work. Other notions such as gradience and categorisation also become relevant in this proposal, since they are in accordance with the cognitivist view of grammar as part of a continuum along with lexicon. The present chapter, therefore, aims at discussing such principles and notions part of the treatment of conditional constructions herein proposed.

3.1.1 Tense, aspect and modality

Tense can be counted as the first of the theoretical components that are relevant for a cognitively-oriented treatment of conditional sentences. As previously described, tense is related to the clausal grounding system in Cognitive Grammar theory. At the same time, tense is related to the different levels of reality therein proposed. Generally speaking, clausal grounding can be regarded as speakers' mechanisms to exert epistemic control over profiled events; in other words, clausal grounding could be understood as the linguistic expression of speakers' perspective on profiled events. This perspective, however, is limited, in the sense that only the present is readily accessible; past events have already taken place and future event are still to come. Still, the limitedness of perspective does not prevent speakers from conceiving events as extended beyond time constraints and assessing them as potential, insecure or speculative (Langacker, 2008).

As far as the manifestation of tense is concerned, English comprises a binary opposition between present and past tenses; whereas the present would essentially correspond to the unmarked form, the past constitutes the marked one. In terms of instantiations of both forms, the present tense can have alternative representations such as the third person marker *-s*. Regarding past tense, it is commonly manifested by means of the *-ed* marker, although other alternative instantiations are possible in case of irregular past forms. Concerning the function of tense in relation to the clausal grounding system, both forms perform the function of indicating the status of a profiled event with respect to immediate reality: whereas present tense indicates the status of a grounded event as part of immediate and readily accessible reality, past tense indicates that such event continues to be part of reality although it is no longer accessible. According to Langacker (2008), the functions of tense are associated to the sequential nature of world experiences, in which only those that occur in the present are accessible, past experiences are accessible only through recall and the future has not been experienced yet.

Modality constitutes the second of the theoretical components included in the present research work and, likewise, it is the second component of clausal grounding. It can be understood as the expression of probability of a grounded event to either take place in reality or remaining as a potential event outside reality. In a similar manner to the verb tense system, the modality system in English consists of a binary opposition marked by the presence or absence of modal verbs. Regarding their conceptual import, modal verbs were developed from verbs involving meanings such as “want to V”, “know how to V” or “have the power to V” (Langacker, 2008, p. 304), having in common the potency of an action that can be performed in the future. To be more precise, two types of conceptual import are distinguished in modal verbs: a *root* sense and an *epistemic* sense. In the case of the former, on the one hand, the conceptual import of modal verbs is related to notions such as obligation, permission, intention or ability and it belongs in the domain of social interactions; on the other hand, the latter is related to the domain of knowledge about the certainty or potentiality of a situation (Langacker, 2008). This epistemic sense of modal verbs is also related to the assessment of a profiled event as part of conceived reality, potential reality or unreal. Thus, the choice of a particular modal verb reflects speakers’ evaluation of the probability of a given event to take place. Likewise, modal verbs can adopt a construal in such a way that the temporal dimension is profiled, as exemplified in cases such as “can” and “could”, or “will” and “would”. Based on this assumption, it will be herein suggested that is an overlapping between tense and modality that is linguistically expressed in modal verbs.

Aspect corresponds to the third notion herein proposed for a cognitively-oriented treatment of conditional sentences. Unlike tense and modality – which are regarded in terms of clausal grounding –, aspect is a component of construal that can be understood in terms of profiling and perspective. Among the different types of relations that can be profiled, those profiled by verbs in general consist of complex processual relations, where the dimension of time becomes relevant (Langacker, 2008). This relevance is shown, on the one hand, by means of the different forms verbs can adopt – infinitive or participles – and by means of auxiliary verbs, on the other. Briefly speaking, the infinitive form of a verb represents a construal of the verb in a non-temporal fashion, although maintaining the temporal meaning

from the conceptual content from the verb. In the case of participles, on the other hand, a vantage point – understood as a mental reference point in terms of time – is adopted, which may correspond to an “internal perspective” (Langacker, 2008, p. 120) in the case of the present participle – understood as the -ing forms of verbs and in contrast with the -ed forms that constitute past participles – or a posterior vantage point in the case of the past participle. The latter is part of the perfect construction along with the auxiliary verb *have*. As previously mentioned, this construction represents the adoption of a posterior vantage point, which means that a reference is made to an event occurred at a prior point in past. The construal of a perfect construction is illustrated in Figure 3.1 below:

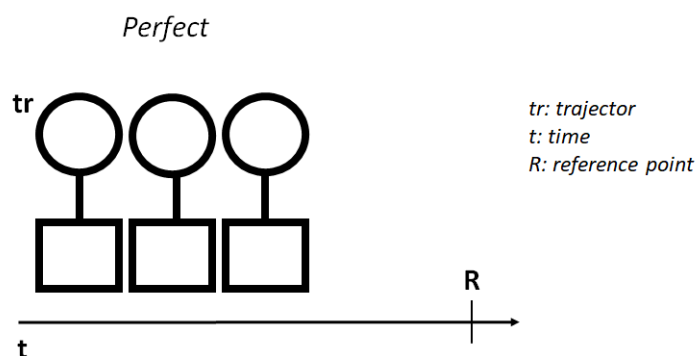


Fig.3.1: representation of perfect constructions (adapted from Langacker, 2008)

The three notions above revised are relevant for a cognitively-oriented treatment of conditional sentences to the extent that in these constructions tense, aspect and modality are integrated as part of the conditional sentences' components. In the present research work, however, they will not be understood as isolated parts of the sentences under study. Instead, and adhering to a cognitivist view of language, such components of conditionals will be regarded as the integration of profiled processes – those that tense, aspect and modality allude to – that are conceptually motivated and converge into a coherent whole. More specifically, it will be herein suggested that such integration of tense, aspect and modality will be realised in terms of the overlapping above mentioned between the profiled processes and manifested morphosyntactically. This integration would be feasible since the previously mentioned

components would perform the common function of profiling events as factual or potential while adopting a temporal perspective. This assumption would be in accordance with the Generalisation Commitment of the Cognitive Linguistics movement that argues for the existence of common principles across different aspects of language instead of a modularised conception of language and its components. More particularly, such commitment can be applied to the understanding of grammatical features and construction constituents such as the ones in this study. This implies that, similarly with language in general, grammatical features and constituents are not modularised under a cognitivist perspective.

3.1.2 Gradience and categorisation

Other important notions that are part of the cognitively-oriented treatment of conditional sentences herein proposed correspond to *gradience* and *categorisation*. These notions become relevant for a cognitively-oriented account of language and its features in the sense that, firstly, they are part of the cognitive processes involved in the creation and organisation of the conceptual basis for symbolic assemblies; and secondly, the notions at issue can be used to understand the notion of lexicon-grammar continuum proposed in Cognitive Grammar theory (see Ch. 2).

The conformation of categories – by means of categorisation processes – is essential in the formation of concepts in human thought. By excellence, categories are the means humans have to conceptualise and encode life experiences that are relevant for either a single individual or a community (Taylor, 2002; Radden & Dirven, 2007), which is possible by means of categorisation. They can range from more general to more specific, and are modifiable insofar as new members can be added in relation to new relevant experiences. To be more precise, categories have been traditionally understood as a schematisation process applied to members that can be grouped together in terms of a set of defined common characteristics or attributes (Rosch, 1978). At the same time, those attributes would be

regarded as characteristic of a given category and would set apart members of different categories from one another.

As part of the notion of categories, it is important to distinguish two dimensions under which they can be regarded (Rosch, 1978). The first of these corresponds to a vertical dimension, which is related to the degree of abstractness of categories and their organisation into hierarchies referred to as *taxonomies*. In turn, this implies, a distinction between subordinate and superordinate members of a category, where the latter would be more simple, abstract and at the same time encompassing than the former – in other words, superordinate members would include a greater number of members. The horizontal dimension, on the other hand, is concerned with notions such as the characterisation of category members and the flexibility of categories, giving origin the notion of prototype, one of the most fundamental concepts within categorisation theories. Following Western tradition, it has been postulated that categories are clear-cut without any possibility of overlapping, which implies that they should be separate from each other (Rosch, 1978). However, this view contrasts with the prototype theory, where it is proposed that, rather than separate members, categories include “best examples” referred to as *prototypes* that “would fit” in a given category better than other members (Radden & Dirven, 2007). Less prototypical members, in contrast, would not constitute good examples of a category and would be consequently treated as peripheral. The most important contrast with a traditional view of categories is constituted by the fuzziness of categories, since members can belong to categories in different degrees of membership.

Concerning the application of the concept of categorisation to the study of language, it can be stated that all linguistic expressions have their equivalent in the categories conceived in thought, which are essentially conceptual. To some extent, linguistic categories are created due to community members’ necessity for communicating their thoughts and are possible through the symbolisation process. This means that linguistic categories are shared by members of a given speech community (Radden & Dirven, 2007). The most common examples of linguistic categories that can be found correspond to lexical categories: language provides its users with lexical items available for their use. In addition, the insertion and

development of novel terms can be explained in terms of the incorporation of new categories. Accordingly, linguistic – and for that matter symbolic– categories can also be found in the grammar of languages when discussing notions such as progressive aspect, countable or uncountable nouns, active or passive voice, among others. However, and in a similar way to concepts, it is important to note that linguistic categories, as compared to all the conceptual distinctions possible, are limited in number. Similarly, they can be regarded as having fuzzy boundaries, since differences between linguistic categories can be observed, for example, across languages, in instances where lexical or grammatical categories of one language do not have a corresponding equivalent in another.

Applying the concepts of gradience and categorisation to the treatment of conditional sentences herein proposed, it will be stated that a cognitively-oriented perspective is to consider the constructions at issue as members of a more general category of “conditional sentences”. Likewise, the meaning of conditional constructions will be understood as a gradient scale in terms of epistemic distance and proximity, where events interpreted as real or close to reality will be regarded to display a greater epistemic proximity. Accordingly, events interpreted as farther from reality will be considered to display, in a gradual manner, a greater epistemic distance. In addition, the meaning conveyed by conditional constructions will be understood in terms of gradience given that they can be regarded as the manifestation of the integration of tense, aspect and modality as previously suggested in this chapter.

3.2 Research questions, hypothesis and objectives

Based on the discussion presented above in this chapter, a series of questions have been herein formulated in order to determine the potential effectiveness of a cognitively-oriented treatment of conditional sentences as compared to a traditional rule-based approach. More specifically, this potential effectiveness will be measured in terms of the degree of attainability of tense, aspect and modality in each of the participant groups:

1. In terms of the teaching of conditional sentences in English, how effective is a cognitively-oriented approach to grammar as compared to a traditional rule-based treatment?
2. What is the degree of attainability of elements such as tense, aspect and modality present in the constructions at issue?
3. What are the differences in attainability of the aforementioned elements in the two treatments herein introduced?

In addition to the questions above formulated, the present research work will postulate as its hypothesis the idea that *teaching through a cognitively motivated methodology will yield better results as compared to traditional rule-based methodologies*. This statement is based on the potential advantages of the former. In the first place, Cognitive Grammar theory deals with the issue of conditionality in a more suitable manner, unifying the notions previously discussed in this study (see Ch. 2 and section 3.1.1 in this chapter). In the second place, it will be herein proposed that it is possible for Cognitive Grammar theory to be successfully adapted into a pedagogy-friendly approach. This approach will, in turn, provide the EFL teacher with theoretical tools that are to allow a more appropriate instruction of conditional sentences in English, namely: unified conceptually intuitive explanations concomitant to the avoidance of rules and exceptions and pictorial representations of the concepts discussed.

Finally, and in order to provide relevant answers to the questions previously stated, the present research work has set the general objective of evaluating the possible effectiveness of a cognitively-oriented approach to grammar applied to the teaching of English conditional sentences, as compared and contrasted to a rule-based approach. In order to achieve this general goal, more specific objectives have been set as follows:

1. Adapt Cognitive Grammar theory into a methodology suitable for the teaching of English conditional sentences.

2. Measure and analyse the degree of attainability of the grammatical criteria of tense, aspect, and modality present in the aforementioned constructions, as a result of the two teaching methodologies.

3. Comparatively and contrastively associate the results obtained through the rule-based and cognitively-oriented grammar teaching methodologies, with a) the degree of attainability of tense, aspect and modality assumed to constitute the make-up of conditional sentences and b) the components of the two distinct methods used to teach them.

Chapter 4

Methodology

4.1 Research Design and Participants

The present chapter aims at providing a description of the methodological tools that have been used in order to achieve the objectives set for this research work. For this purpose, it will be herein provided a detailed description of the participants chosen, the data collection procedures and the analysis conducted, as well as the expected results. Along with this description, an explanation regarding the selection criteria will also be given.

Considering that this study works with the hypothesis that the teaching of English conditional constructions through a cognitively-oriented treatment will yield better results as compared to a rule-based methodology, a comparative and contrastive analysis is regarded as appropriate, in the form of a quasi-experimental design. It is relevant to highlight that this type of research design has been chosen given its appropriateness for the testing of different teaching approaches and methods, which in this case are applied to conditional constructions in English.

Regarding its research design, the present study consisted of two instructional sessions in which the participants, sorted into two independent groups, received respectively two types of instruction, namely traditional rule-based and cognitively-oriented. Following the assumptions introduced in the theoretical framework of the present study (see Ch. 3), the instantiations of a conditional construction were not deemed as independent and arbitrary realisations of each of their constituents. Instead, they were understood as a fusion of profiled processes that are conceptually motivated and evoke mental spaces that converge into a conceptually coherent whole. Such an assumption has implications regarding the design of both the instructional and test materials. More concretely, in each instructional session, which lasted 90 minutes, the following instructional materials were used:

- In the case of the traditional rule-based instruction, the instruction material consisted of slide presentations including explanations of rules for elaborating conditional sentences in English as well as examples, and were taken from already existing grammar reference materials used in English courses, especially Murphy's (2004) *English Grammar in Use*.
- As far as the cognitively-oriented instruction is concerned, the designed instruction material included the components of the conditionals, namely tense, aspect, and modality, comprehensibly and intuitively accessible through slide presentations including explanations, examples, and diagrams of the aforementioned components. Creation of the material involved adaptation and adjustment of existing cognitively-oriented theories, essentially from Langacker's Cognitive Grammar theory (2008), appropriately adjusted to the needs of the teaching session.

Along with the instructional material described above, the research also included the design and implementation of a written post-test that contained exercises based on the theoretical assumptions as well as the components taught during the teaching sessions. It should be noted that this post-test was applied in a separate session and was common for both instruction groups, which implied that the series of exercises therein included did not reflect any predominance of one treatment over the other. More specifically, the post-test included four items where both explicit and implicit knowledge on conditional sentences were assessed, namely: grammaticality judgement, sentence correction, sentence completion and writing. It should be mentioned that the first two test items essentially involve conscious knowledge – and its subsequent application – of the syntactic patterns underlying conditional sentences, whereas the two last test items are concerned with unconscious observation of such syntactic patterns and their surrounding linguistic context. It is also important to mention that the typology of conditional constructions selected for the instructional and test material creation corresponds to that according to hypotheticality degree previously discussed (see Ch. 2). This choice has been made due to the fact that this classification of

conditional sentences is the most widely accepted and adopted both for research as well as pedagogical purposes.

The participants chosen for this study corresponded to a total of 36 students from first year in Journalism, Creative Literature and Advertising programmes at Universidad Diego Portales, who attend the general English courses part of each programme. At the beginning of each academic year, new students are required to take a placement test in order to be assigned to Elementary, Intermediate, or Advanced English courses, depending on their overall performance in such assessment instance. Given the complexity of the constructions taught, the students that have been selected for this study belong to Advanced English courses: this implies that, as stated in the syllabus for general English courses, they are expected to be able to reach a B2 user level at the end of the courses, according to the Common European Framework of Reference. In turn, reaching this level of proficiency would be reflected in the understanding and use of a variety of grammatical constructions, among which conditional sentences are included. Other factors such as participants' age or gender were deemed as irrelevant for the present study. As previously suggested, the total number of students was divided into two groups in order to conduct the quasi-experiment herein described. Students under traditional rule-based instruction were denominated as TRAD group whereas those under a cognitively-oriented instruction was referred to as COG group. It is also important to mention that the sampling procedure used corresponds to a non-probabilistic sampling, more specifically that of convenience or opportunity sampling, since both groups were conformed according to students' time availability. Furthermore, for the sake of homogeneity of the sample, native speakers of English were not included as part of the sample.

4.2 Data Collection Procedures and Analysis

As has been stated earlier, the following research work sets as its objectives to compare and contrast a cognitively-oriented treatment of English conditional sentences against a traditional rule-based treatment, as well as to account for the degree of attainability of the constructions at issue in each group. In order to achieve these goals, data collected from the post-test was coded and subsequently analysed. Such coding has been based on the features that in theory were deemed as relevant for the understanding and use of conditional constructions, and were assessed in the evaluation. These features consist of the very same components observed to be relevant to the formation of English conditional constructions, namely tense, aspect, and modality.

An initial stage of the data analysis will consist of a quantitative analysis comparing and contrasting the global results obtained by participants in each group. More precisely, this will be measured in terms of the correct answers obtained by each group in terms of their overall results as well as their results in each of the test items. The purpose in this quantitative stage is to determine any significant differences in the learning of conditionals that may suggest either that a cognitively oriented teaching is more possible to hold better results than a traditional rule-based one, or not. Considering the nature of the hypothesis as well as the independence of the observations for the two groups, an independent one-tailed t-test – or its non-parametric version, depending on the normality of the distribution of the data – on the direction and significance of the difference in post-test average scores between the two groups will be performed. The normality tests are also meant to give a first glimpse on the distribution of the scores and reveal possible outliers that tend to skew the results and distort a fair evaluation of the between-groups similarity of results.

Consequentially to the possibilities of expected results, if the quantitative analysis for any of the items in terms of correctness of answers does not show any difference between the groups – or if the observed difference is not significant – a second stage will be in course involving the completion of a qualitative analysis that intends to account for differences between the groups in terms of test performance, both in the test as a whole as well as test

items separately. The analysis will look into possible qualitative differences between the groups, in order to explore the possibility that the groups show a differential tendency towards specific types of answers. If this turns to be the case, then any systematic differences found may be linked to specific types of knowledge that each group has better attained, and the latter may be linked in turn to differences between the teaching methods implemented. The main tests that may be deemed necessary to apply in order to explore qualitative differences between the performance of the two groups are the following: significant associations between sentences and specific types of answers based on residual values and correspondence analyses between the multiple components that constitute the students' answers. The former is based on analysis of residual values and represents the systematic tendency of each group towards a positive or negative deviation from the otherwise expected results. The association plots used to the end of representing visually this analysis show the over-representation as well as the under-representation of specific answers or components of the latter that each group tends to, in comparison to the other.

The family of correspondence analyses that may also be used – let this be either simple or multiple correspondence analysis – constitutes the evaluation of the mutual attraction between various components constituting the answers of each group. This systematic attraction is multidimensional, in the sense that both the variables that are associated as well as the possible instantiations of them are more than two. The attraction between various components may take various forms. It may concern, for example, systematic attraction between a tense feature, a modal and an aspectual one; or it may be a systematic disassociation between the correctness of an answer and the type of knowledge required for a specific sentence. What correspondence analysis yields visually is a plot and constitutes a compensation between two facets: the multi-dimensional interactions understood in terms of mutual attraction and interpreted in terms of distance between the categorical variables under analysis on the one hand, and the two-dimensional representation that inevitably reduces the occurring variation into the flat surface of a visual map. The platform used for the implementation of the various tests is R.

4.3 Expected Results

The results to be obtained through the collection of data and its subsequent analysis will provide interesting insights regarding the instructional treatments herein introduced and their effectiveness in the teaching of English conditional sentences. More specifically, such insights will be concerned with the attainability in different degrees of the components observed, namely tense, aspect and modality, as well as the felicitous combination of them in correspondence to the appropriate use of the type of conditional required.

One of the results that can be expected for the present research work is that the group under a cognitively-oriented treatment of conditional sentences is expected to hold better results as compared to its rule-based counterpart. Such a possible result could be explained by means of the advantages represented by a cognitively-oriented approach. In the first place, the explanations on the conceptual motivations underlying syntactic structures could facilitate the learning of conditional sentences. Apprehending such conceptual motivation for the constructions would also imply that students under a cognitively-oriented instruction apprehend linguistic context more easily given the usage-based nature of an approach with a cognitive orientation. In second place, a favourable performance under a cognitively-oriented treatment can be explained in terms of the accessibility of the constructions: cognitive theories and models adhere to the cognitive commitment, which states that language in general and its components in particular reflect patterns of thought as well as general cognitive processes. Learning of conditional constructions, therefore, is expected to be intuitively accessible to study participants. Thirdly, the use of visual aids – which consist essentially of diagrams accordingly adapted from Cognitive Grammar theory as explained above – is expected to enhance the attainability of the components of the constructions taught.

Alternatively, another possible result from the study herein reported could be that the group under a traditional rule-based treatment may obtain better results as compared to their cognitively-oriented counterpart. In this scenario, a rule-based methodology can be expected to be more effective than a cognitively-oriented treatment: on the one hand, the complexity and abstractness of the concepts in the latter approach may result in a greater difficulty in

apprehending the contents instructed. On the other hand, the familiarity and simplicity of the explanations and examples from a traditional treatment of conditional sentences may facilitate the comprehension and learning of the constructions.

A third possible result would consist of similarities in results in both groups, implying that neither of the groups would significantly outperform the other. The anticipation of such a result has implications concerning the description and subsequent analysis in terms of qualitative differences at test performance level in each group. More precisely, these would be accounted for in terms of two main aspects: first, the degree of attainability of specific components of the constructions taught and, second, the type of knowledge found to have been attained and is required for the test items. In both aspects, it becomes relevant to highlight that, unlike the two previous expected scenarios, this possibility does not involve analysing answers in terms of their correctness. Instead, they will be analysed considering their qualitative nature (in other words, the content of the test performance observed in each of the groups).

The degree of attainability of the components of conditional sentences refers, more specifically, to the extent to which students in both groups are able to apprehend tense, aspect and modality, as well as their interaction in specific constructions. In addition, it is important to refer to the role of linguistic context in the understanding of such components. It will be herein anticipated that conditional sentences will be interpreted in relation to the linguistic context that embeds them, and will be subsequently adjusted to such context. It is expected that this phenomenon will occur more frequently in the case of the group under the cognitively-oriented treatment. A greater context awareness could be linked to a higher preponderance of meaning in the cognitively-oriented treatment of conditional sentences as compared to the traditional instruction. Subsequently, the preponderance of meaning in the former instructional treatment can be regarded as in accordance with the main principles of Cognitive Grammar theory – this is, the meaningfulness of grammatical features. In the case of the group under a rule-based instruction, on the other hand, students belonging in this group will display closeness to the grammatical forms instructed. It is expected that this phenomenon will be given in accordance with a focus on grammatical form over meaning

(both sentence meaning as well as pragmatic meaning present by means of linguistic context) that characterises a rule-based instruction.

A second aspect to be taken into consideration in test performance corresponds to differences of the latter in terms of the learning target of each test item as well as the type of knowledge required by them. As previously mentioned in the present chapter, the first two test items involve conscious knowledge on the grammatical patterns of conditionals, whereas the main concern in the last two items is unconscious observation of the linguistic context – grammaticality judgement and sentence correction in the case of explicit knowledge and sentence completion and writing for implicit knowledge. Hence, one possibility that can be expected is that, along with greater context awareness, students under the cognitively-oriented instruction may also hold better or more coherent results in those test exercises where implicit knowledge on conditional sentences is at play. Students under a rule-based treatment, conversely, may obtain better results in the test items involving explicit knowledge of the constructions taught.

Chapter 5

Data Analysis and Results

In the present section, the quantitative results for test performance in both groups of participants will be displayed. For organisation purposes, a first subsection will deal with a description and breakdown of test items as well as the overall scores for the total number of participants. Subsequently, in a second subsection, the scores for each test item will be discussed.

5.1 Test breakdown and overall test performance

Common to both groups, the test material given to the participants ($n = 36$) had a total score of 70 points, distributed across the following items:

- I – Grammaticality Judgement: 10 exercises, 10 points total
- II – Sentence Correction: 10 exercises, 20 points total
- III – Sentence Completion: 10 exercises, 20 points total
- IV – Writing: 10 exercises, 20 points total

In terms of general performance, it was observed that the TRAD group outperformed the COG group to a small extent. This is reflected in that the former group obtained a 33.8% from the total of correct answers (an average score of 23.7 points), whereas the latter obtained a 31.7% (scoring an average of 22.2 points). Regarding item by item, the average for performance in each group is summarised in Table 2.

	I	II	III	IV
TRAD	26.9%	20.8%	35%	49.2%
COG	30.4%	18.7%	31.5%	45.7%

Table 2. Distribution of correct answers per test item

In relation to the scores obtained in each group, it was observed that in the TRAD group (n = 13) the highest score obtained was 44, whereas the lowest was 10. Distribution of correct answers took place within these parameters: most participants in the group obtained between 16 and 24 correct answers – which corresponds to the second lowest range of correct answers – in contrast with the fact that only one student scored over 37 points and another student scored 30. Regarding the lowest range of scores, only three students obtained below 16 points, as shown in Figure 5.1. This distribution can be considered as quasi-normal, since the highest frequency was found within the range of mid-low scores, whereas both the highest and lowest scores were obtained by fewer students.

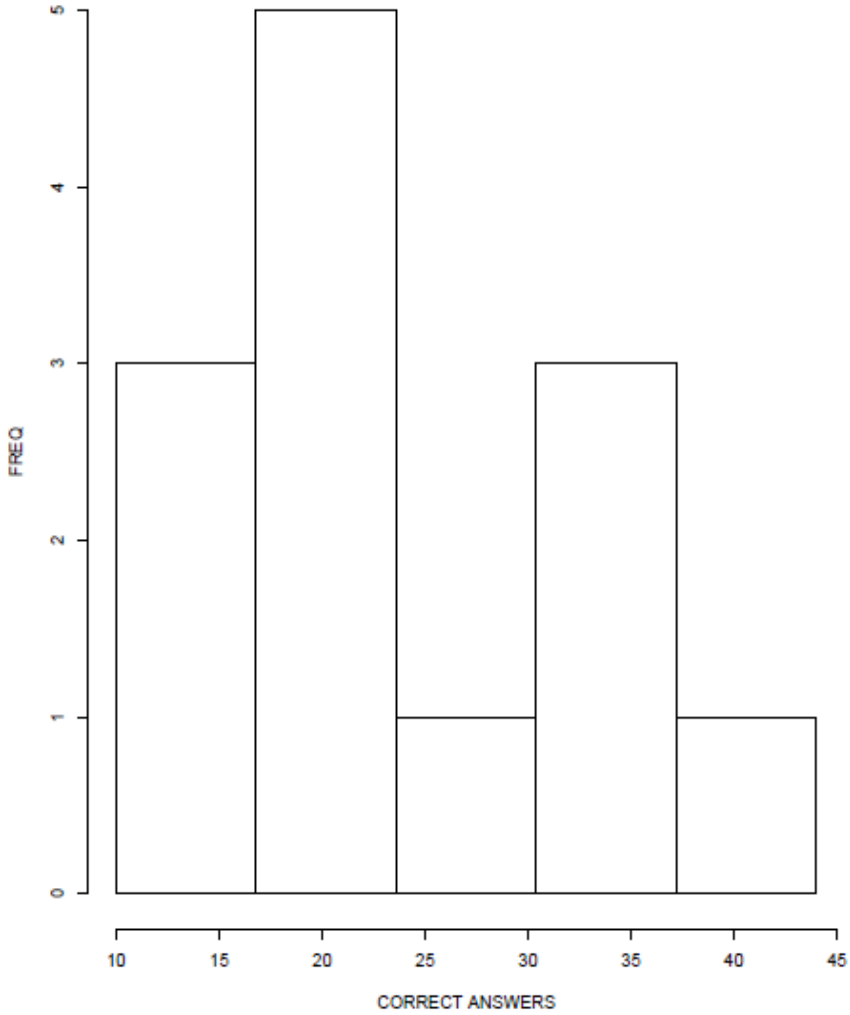


Fig.5.1: Distribution of correct answers for TRAD

On the other hand, regarding the overall test performance for the COG group (n = 23), the highest score obtained was 49, whereas the lowest was 9. Between these two parameters, it can be noted that the distribution of correct answers took place along the following lines: most participants in the group obtained a score lower than 15 (the second lowest range of correct answers), in contrast with the fact that only two students scored over 40 points corresponding to the highest range of correct answers. Such a distribution is regarded as right-skewed, taking into consideration the frequency for the lowest and highest scores, as represented in Figure 5.2.

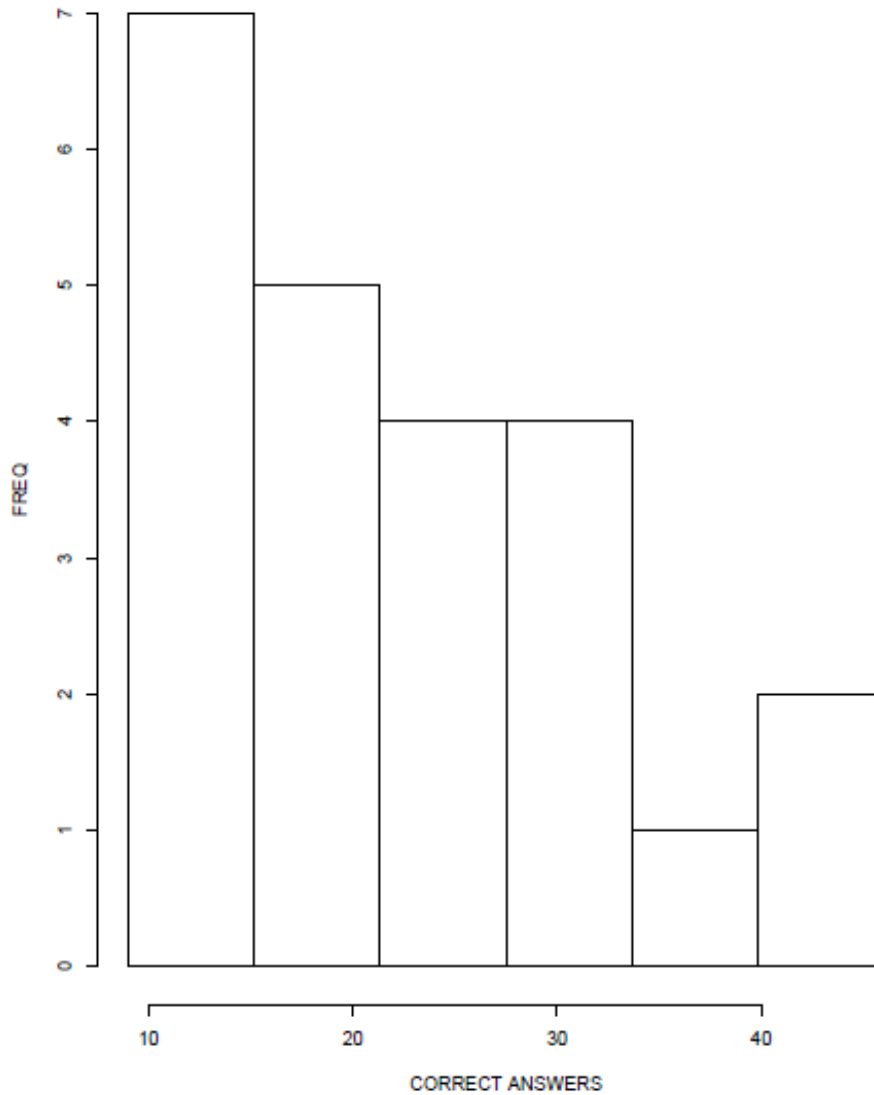


Fig.5.2: Distribution of correct answers for COG

Statistically speaking, however, the differences found between both groups cannot be regarded as relevant given the p value found ($p = 0.694$ for TRAD; $p = 0.185$ for COG); a contrastive insight may not be significant given their similarity in performance. Therefore, further analysis is needed concerning group performance per test section and question type.

5.2 Quantitative analysis per section

5.2.1 Quantitative data analysis for I – Grammaticality Judgment:

The following test item comprised ten multiple-choice questions in the form of ten statements including conditional constructions. Participants were asked to assess each of the statements by selecting one of the following options available:

- A – grammatical.
- B – partially grammatical: error in form. This option implied the conditional construction included verb phrases that did not concord with their corresponding nominal. This error, nevertheless, did not affect the general context nor the understanding of the whole construction.
- C – partially grammatical: error in context. This option could be selected in case the conditional construction included verb phrases that, although in accordance with their corresponding nominal, were incongruent or inappropriate with the context of use. Similar to option B, this error did not affect the understanding of the whole construction.
- D – ungrammatical. Comprising both options B and C

Global results suggest that the COG group held results slightly higher than the TRAD group: whereas the former obtained a 30.4% of the total of correct answers for the item, the latter group obtained 26.9% for the same exercises.

Regarding TRAD students, distribution of answers took place along the following lines: in relation to the number of correct answers, it was observed that the highest score obtained was 5 whereas the lowest was 0, each of these being obtained by only one student respectively (each case corresponding to 7.7% of the total number of group participants). The highest distribution found within the group was 3 points, obtained by 46.2% of the group total (6 students). The distribution found can be regarded as normal, as displayed in Figure 5.3 ($p=0.23$). On the other hand, considering the options chosen, distribution of answers took place as follows: out of a total of 130 answers within the TRAD group, option A obtained the highest frequency with 45.4% (59 answers) of the total of options, followed by option B, with a frequency of 23.1% (30). As for the lower scores, option C obtained a frequency of 19.2% (25) of the total of options, whereas option D was selected with a frequency of 12.3% (16 answers). No questions were left unanswered.

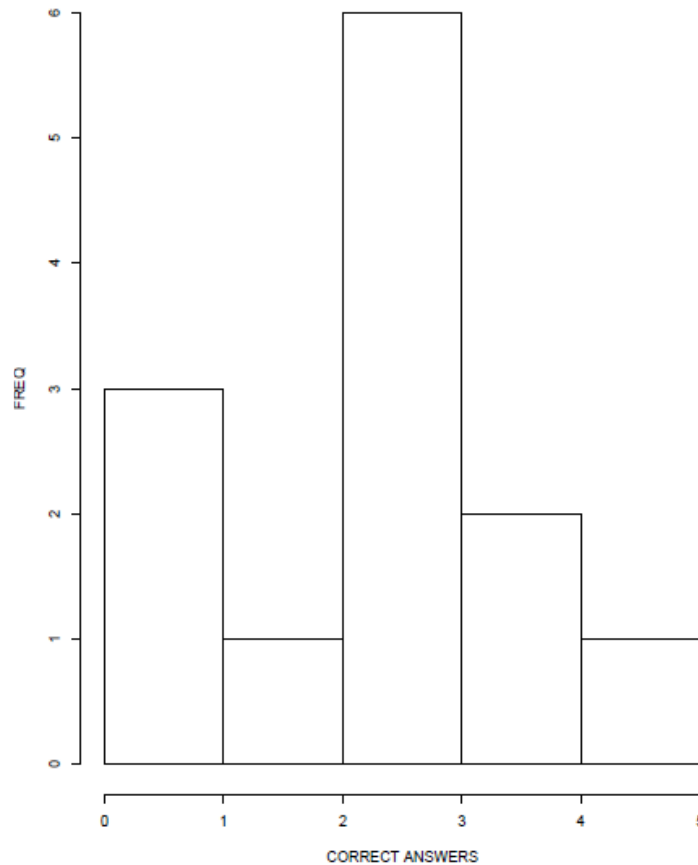


Fig.5.3: Distribution of correct answers for test item I - TRAD

Concerning students from the COG group, distribution of answers can be described along the following lines: according to the number of correct answers and similarly to TRAD group, it was found that the highest score obtained was 5 whereas the lowest was 0; whereas the former was obtained by three students, the latter was obtained by only one (representing the 13% and 4.3% of the total for this group, respectively). On the other hand, the highest distribution found within the group were 2, 3, and 4 points, each of these obtained by 26.1% of the group total (6 students in each case). Similar to the previous group, the distribution of results is normal ($p=0.12$), as shown in Figure 5.4. According to the options chosen, answers were distributed among COG students as follows: out of a total of 230 answers, option A obtained the highest frequency with 44.8% (103 answers) of the total of options, followed by option B with a frequency of 25.7% (59). Regarding the lower scores, option C obtained a frequency of 19.1% (44) of the total of options, whereas option D was selected with a frequency of 10% (23 answers), the lowest in the group. One question was left unanswered and therefore was regarded as null – 0.4% of the total of answers in this item for the group.

Keeping in consideration the results presented above, analysis was performed detecting differences between both groups at three different levels of interpretation. The first of these levels corresponds to the awareness of linguistic context demonstrated by participants: in general terms it was found that, as compared to their TRAD counterpart, students from the COG group seemed to display greater observation of linguistic context when making decisions regarding grammaticality judgement. This feature was partly observed in those exercises in which the latter group obtained a higher number of correct answers, such as the cases for exercises 3 and 7; and it is particularly true in the former, where providing the correct answer implied detecting incongruences between the grammatical patterns used in the conditional construction and their corresponding linguistic context, a task COG students completed successfully to some extent – 34.8% of the total answers for the group correspond to answer C, in contrast with 0% in TRAD group for the same answer type. TRAD students, on the other hand, appear to focus on the grammatical patterns given in the instructional session, with linguistic context being disregarded in some opportunities, as could be observed in the analysis for exercises 1, 3, and 7. It is also

important to mention that context observation and awareness are not to be related exclusively to the choice of option C in each group, since the previously mentioned skill was involved in the proper assessment of all sentences.

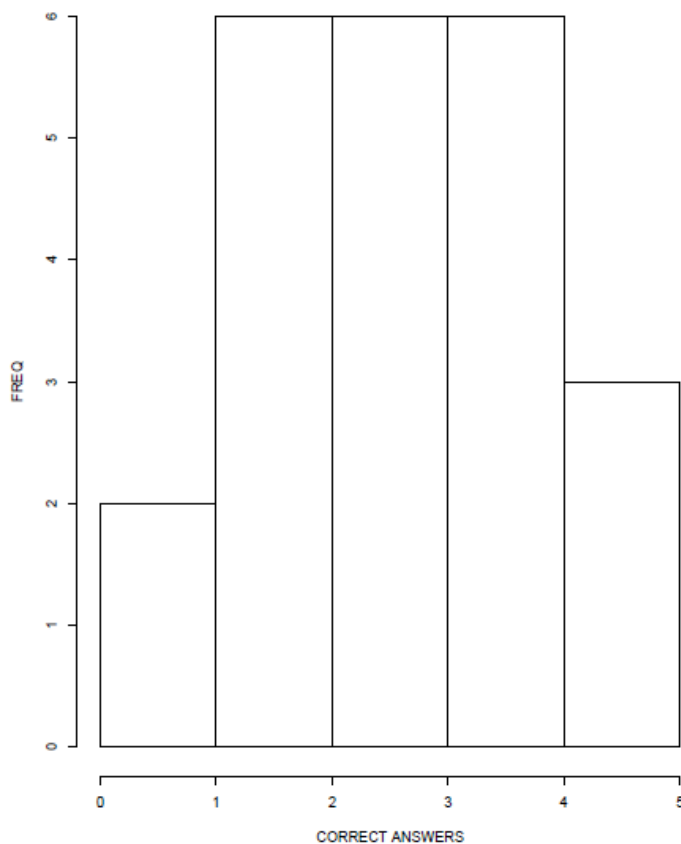


Fig.5.4: Distribution of correct answers for test item I - COG

Nevertheless, greater observation of linguistic context is not limited to correct answers only. An interesting case is that of exercises 2 and 6, for instance, where COG students assessed as grammatical sentences that actually were inappropriate given their respective linguistic context – which means answer A (incorrect answer) got the highest distribution in both exercises, with 60.9% of the total answers for each. These results suggest that group participants may have adapted the linguistic context presented in the sentences and therefore interpreted such sentences as appropriate. Regarding question 6, a similar situation was given among TRAD students, although in a smaller scale: answer A obtained the highest distribution, 46.1% of the total of answers.

Another level of interpretation of results corresponds to the distribution of correct answers regarding the conditional type in each of the exercises for the item. It was found that, in both groups, factual conditionals appeared to be easier to assess correctly, whereas the opposite situation seems to be the case of counterfactual constructions. Instances of the former can be found in exercises 1, 2, 3, and 7, in which factual conditionals were involved in the correct answer for each. Distribution of correct answers shows that, to some extent, participants in both groups successfully assessed factual constructions according to the options given. Conversely, in the case of counterfactual conditionals as part of the correct answers, a smaller number of students from both groups managed to correctly evaluate such sentences. Exercises 5, 8, 9, and 10 can be regarded as instances of this situation. Distribution for each type of constructions in relation to the total of correct answers (105 responses) can be summarised in Tables 3 and 4.

Exercise	Correct answer	Distribution (both groups)
1	A	16.2% (17)
2	C	7.6% (8)
3	C	7.6% (8)
7	B	11.4% (12)
TOTAL		42.8% (45)

Table 3. Distribution of correct answers for factual conditionals

Exercise	Correct answer	Distribution (both groups)
5	A	16.2% (17)
8	A	8.6% (9)
9	D	2.9% (3)
10	D	4.8% (5)
TOTAL		32.5% (34)

Table 4. Distribution of correct answers for counterfactual conditionals

A possible interpretation for the results presented above is related to the concepts of grounding and epistemic distance previously introduced in this research work. In Cognitive Grammar theory, clausal grounding is concerned with the occurrence – actual or potential – of events and their connection to reality as conceived by interlocutors. Epistemicity is then related to determining the location of profiled processes in such reality and, as concluded from the instructional session for COG students, conditional constructions can be understood as conceptually motivated from the epistemic proximity or distance from reality (as would be the cases of factual and counterfactual conditionals, respectively). In other words, factual conditionals can be seen as a prototypical construction for the expression of epistemic proximity to reality, whereas counterfactual conditionals are understood as prototypical constructions for epistemic distance. This status of factual constructions as prototypical instances of conceptually motivated epistemic distance may account for a more accurate understanding and subsequent judgement by participants, regardless of the instruction treatment given. On the other hand, the comprehension and assessment of counterfactual conditionals to a lesser extent can be given by the prototypicality of this conditional type for a greater epistemic distance.

Finally, a third level of interpretation corresponds to the degree of completion of the task required in both groups. As previously mentioned at the beginning of this section, answer A obtained the highest distribution possible in both groups, which reflects a tendency in the participants to judge the presented sentences as grammatical, disregarding either linguistic context of conditionals or grammatical concord between their constituent clauses. Likewise, option D obtained the lowest distribution in both groups, which implies that few sentences were assessed as fully ungrammatical. A possible explanation in the case of TRAD students may have to do with a lack of observation of factors other than linguistic form. This situation can be observed in the cases of exercises 2, 3, and 6; despite these sentences displaying incongruences with their respective context, option A was still the most widely selected answer. Regarding grammatical concord, it can be stated that its observation by TRAD students was limited to concord within constituent clauses, as shown in exercise 7. A

summary of the options A obtained in the aforementioned exercises in relation to the group total can be found in Table 5.

Exercise	Correct answer	Distribution of correct answer	Distribution of A
2	C	30.8% (4)	30.8% (4)
3	C	0% (0)	76.9% (10)
6	C	23.1% (3)	46.2% (6)
7	B	15.4% (2)	38.5% (5)

Table 5. Distribution of option A in TRAD for exercises 2, 3, 6 and 7

Regarding students from the COG group, this preference for the ‘grammatical’ answer type may be related to the type of instruction received. From the perspective of Cognitive Grammar theory, linguistic units are not described in terms of grammaticality (total or partial) and ungrammaticality in the same terms as they are under more traditional, form-based approaches. Rather, such units are described in terms of the degrees of entrenchment and conventionalisation they can reach. Under a cognitively-oriented instruction, participants therefore may not be likely to assess the sentences presented as grammatical or ungrammatical but they interpret them as marginal, novel or established linguistic expressions. Examples where A was the preferred option can be found in Table 6, which displays the distribution of this response for exercises 2, 6, 9, and 10 among COG students:

Exercise	Correct answer	Distribution of correct answer	Distribution of A
2	C	17.4% (4)	60.9% (14)
6	C	13% (3)	60.9% (14)
9	D	4.3% (1)	34.8% (8)
10	D	8.7% (2)	47.8% (11)

Table 6. Distribution of option A in COG for exercises 2, 6, 9 and 10

5.2.2 Quantitative data analysis for II – Sentence Correction:

The second test item included ten text excerpts including conditional constructions whose constituent verb phrases, however, were designed so that they did not display grammatical concord among them or were not appropriately used given their linguistic context. Participants were requested to correct such conditional statements by selecting verb phrase constituents organised in columns, which included from one to four options each.

According to the overall results found, TRAD students slightly outperformed their COG counterpart: whereas the former obtained a 20.8% of the total of correct answers for the item, the latter group obtained 18.7% for the same exercises. As far as the TRAD group is concerned, correct answers were distributed as follows: from a total of 260 answers and a maximum score of 20 points in the item, the lowest score obtained was 0 whereas the highest was 11. Each of these scores were obtained by 5 and 2 students respectively, which corresponds to the 30.8% and 15.4% of the total of participants in the group. The highest distribution found was between 0 and 2 points, scores obtained by 53.8% of students in this group (7 participants). Other intermediate scores were obtained by only one participant each, such as the cases of 4, 5, and 8 points. Each of these obtained a frequency of 7.7% in relation to the group total. The highest range corresponded to 9 points and above, obtained by 3 students (23.1% of the group total). This distribution could, therefore, be considered as right skewed with an outlier, as illustrated in Figure 5.5.

Regarding the COG group, the following distribution for correct answers was found: from a total of 460 answers and a maximum score of 20 points in the item, the lowest score obtained was 0 whereas the highest was 16. Whereas the former was obtained by four students, the latter score was obtained by only one student, corresponding to the 17.4% and 4.3% of the total students for this group. The highest distribution observed was between 0 and 3 points, scores obtained by 65.2% of students in this group (15 participants). On the other hand, the lowest distribution observed corresponds to a score of 13 points and above, obtained by only one student (4.3% of the total for the group). Other distributions comprise ranges between 4 and 6 points, between 7 and 9 points and between 10 and 12 points,

representing the 13%, 8.7% and 8.7% of the total for the group, respectively. This distribution of results can then be characterised as right skewed, as shown in Figure 5.6.

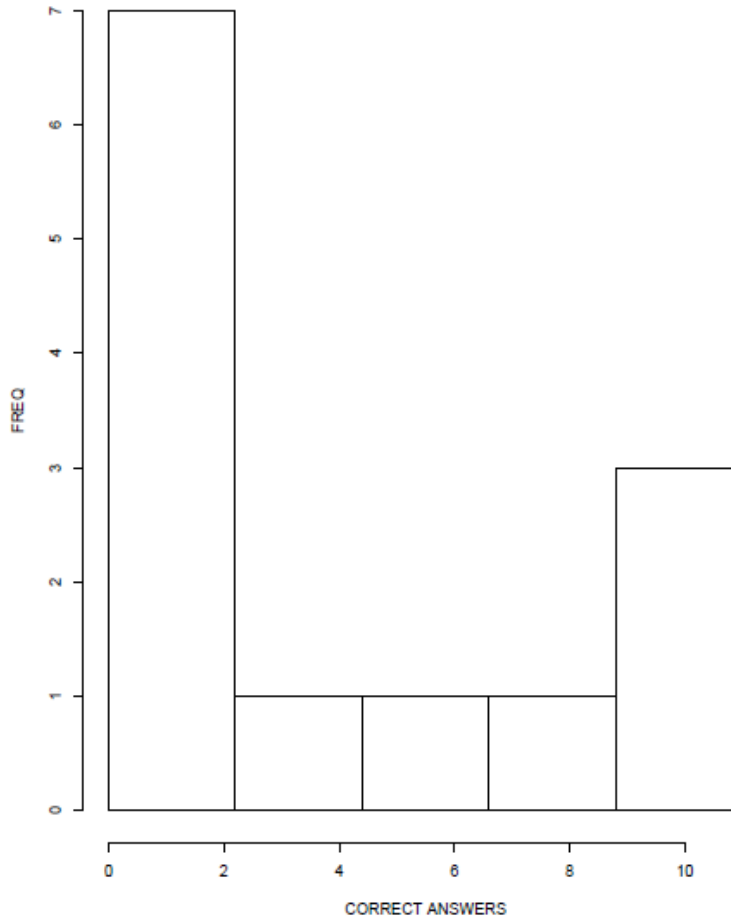


Fig.5.5: Distribution of correct answers for test item II - TRAD

Similar to the analysis conducted in the previous test item, differences between groups were found at three interpretation levels: for this item, such levels correspond to degree of variation among answers, distribution of correct answers regarding conditional type and degree of achievement of the task required. Such analysis was based on the observation and interpretation of Multiple Correspondence Analysis maps displaying two types of associations among elements, namely among verb phrase components for each group as well as associations between those verb-phrase components and the conditional types – factual,

hypothetical, or counterfactual. MCA is a dimension reduction statistical method for the exploration of multi-dimensional interactions taking place among a variability of factors. These interactions correspond to co-occurrences of the specific instantiations of these factors and are calculated on the basis of the constitution of a distance matrix that converts a frame-sheet with observations and variables into a tabulated format. The latter yields visually a bi-dimensional map understood as a compensation between variation and unified representation. Regarding the instantiations of the verb-phrase components, these have been sub-categorised into verb (v), will (w, considering presence of auxiliaries will or would) and have (h, including have or had). Thus, the MCA maps seen below reduce multidimensional correlations among co-occurring features into a two-dimensional plane, where associations of features are represented as relative proximity whereas weak associations or lack of the latter are represented as relative distance. Additionally, the overall contribution of each component to variation is numerically represented by the R2 coefficient.

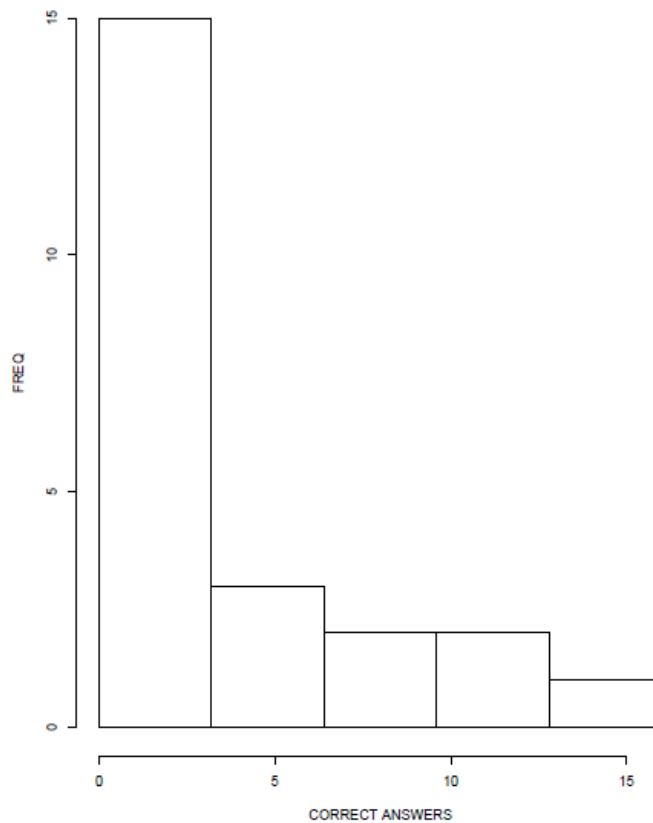


Fig.5.6: Distribution of correct answers for test item II - COG

The first level of interpretation herein discussed corresponds to the degree of variation among answers observed in each group. It was found, by comparing MCA maps for both groups, that variation occurs to a lesser extent in such participants as compared with their TRAD counterpart. This phenomenon is reflected in most of the R2 values for v, w, and h for both groups as well as a slightly more distant representation of VP components in the maps in the case of COG group answers, a representation that indicates weaker associations between component types, as previously mentioned. As illustrated in Table 7, R2 values are higher in the case of TRAD students, which implies that variations are greater in this group. Likewise, Figures 5.7 and 5.8 display the MCA maps with their corresponding variations among groups.

		TRAD	COG
VP1	v	0.6378024	0.5591368
	w	0.2012896	0.3447066
	h	0.6658162	0.4439430
VP2	v	0.6409181	0.5568778
	w	0.1878355	0.2430776
	h	0.7882823	0.7458810

Table 7: R2 values for verb phrase components in TRAD and COG groups

Observation of this phenomenon may imply that COG students have probably not made a sharp distinction among the 3 conditional types; rather, such constructions have been conceived as part of a continuum or a gradient scale. Similarly, it might be suggested that these students do not need to make sharp distinctions among conditionals provided that such constructions could be adapted into the linguistic context where they occur. Thus, linguistic context can be said to gain a more predominant role in the understanding of conditional constructions in COG. Another important feature observed comprised the fact that the sequencing of VP components in COG showed atypical VP patterns provided in the students' answers, a phenomenon that can be related to the observation of task achievement and will be covered in more detail below in this section. On the other hand, interpretation of MCA maps suggests that the distinction among conditional types is sharper in TRAD students and

answers analysed contained verb patterns more in accordance – although not entirely – to the canonical VP patterns for conditional constructions. These features may reflect a greater focus on grammatical form among TRAD students.

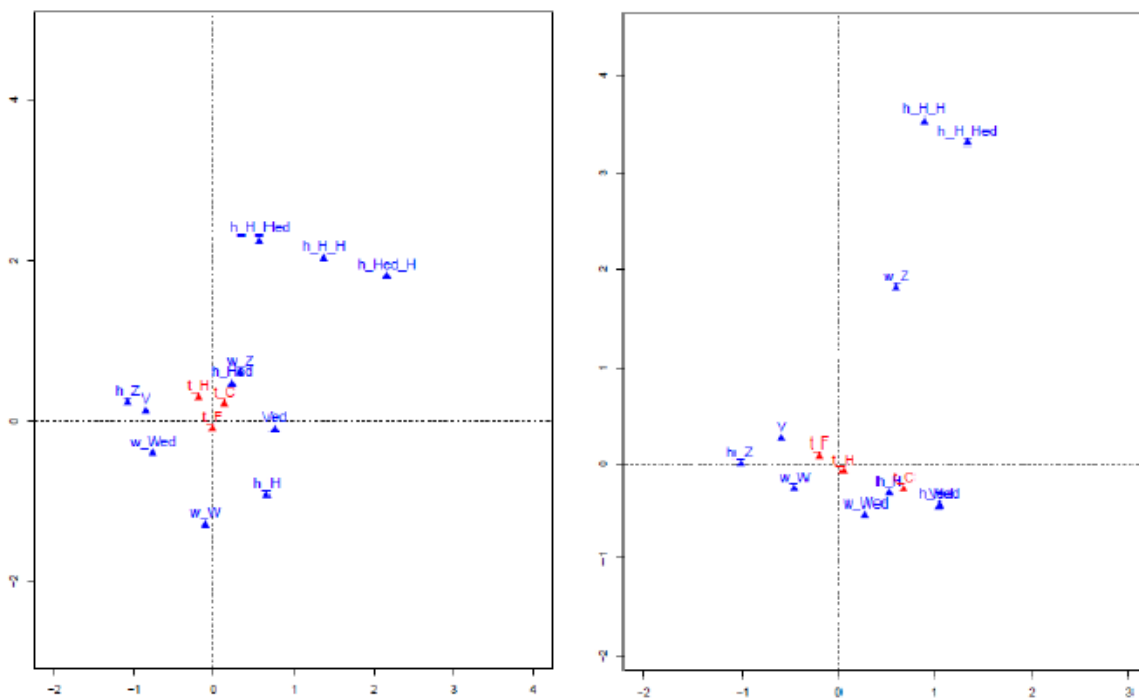


Fig.5.7: MCA maps for item II – TRAD according to VP patterns

Another level of interpretation of results corresponds to the distribution of correct answers taking into consideration the conditional type in each of the exercises for the item. In order to account for an appropriate interpretation, a brief description of components in both verb phrases in each group is provided below.

- Instance types associated with factual conditionals can be described in TRAD as verb phrases including simple verb tenses (present) that may or may not include auxiliary ‘have’ in case of the antecedent, whereas the verb phrases in the consequent include ‘will’ and verb. In the case of the COG group, the antecedent can be characterised as consisting of simple verb tenses not followed or preceded by ‘have’, ‘will’ or ‘would’; the consequent, in turn, can be characterised similarly to TRAD, although also

indicating absence of ‘have’. Answers in both groups may be considered in accordance with canonical verb phrase patterns for factual conditionals.

- Instance types associated with hypothetical conditionals can be described as follows: verb phrases in the antecedent for TRAD group consist of structures including tenses that can be either simple or perfect (in the case of the latter, marked by presence or absence of ‘had’) and including ‘would’, similar to those for counterfactual conditionals; in the COG group, such verb phrases are characterised as consisting of perfect tenses including ‘have’ or ‘had’, and ‘would’. As far as the consequent is concerned, it can be described in both groups as including perfect tenses (with ‘have’ or ‘had’) and ‘will’ or ‘would’. Answers in neither group follow canonical verb phrase patterns for this conditional type.

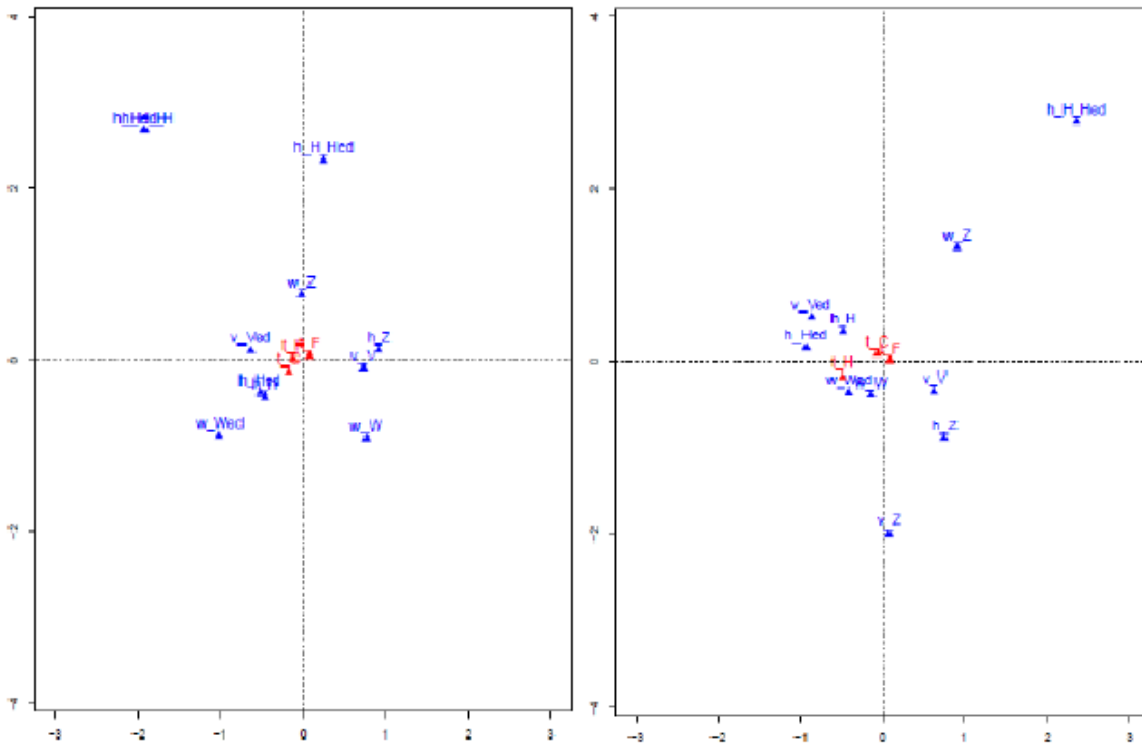


Fig.5.8: MCA maps for item II – COG according to VP patterns

- Instance types associated with counterfactual conditionals can be characterised along the following lines: the antecedent for TRAD includes past participles in combination with either 'have' or 'had'; additionally, they are marked by absence of 'would'. In the case of COG, such antecedents are described as containing auxiliary verbs 'have' (or 'had') and 'would' in combination with a base form. Regarding the consequent, it is characterised in both groups as consisting of the same verb phrase types observed in hypothetical conditionals. The instance types mentioned in this paragraph are in accordance only to some extent to canonical verb phrase patterns for conditional constructions of this type.

From the characterisation given above, it is possible to state that, in general terms, there appears to be a greater attempt to comply with canonical patterns in TRAD students than their COG counterpart. This is reflected in the fact that VP components provided in TRAD answers are closer to the correct answers expected for each exercises. Additionally, it is important to highlight the considerable amount of overlapping observed between conditional types in both groups: in other words, some instance types seem to apply for more than one construction, a phenomenon that was observed especially in the case of hypothetical and counterfactual constructions, where the same verb components were used. It could be interpreted, therefore, that students from both groups did not make a distinction between the conditional constructions at issue; instead, such sentences were understood and interpreted as a single type of conditional construction in the aforementioned cases.

Finally, a third level of interpretation corresponds to the degree of completion of the task required in both groups. In a similar way to what has been found for item I, analysis of the present item shows that, in most cases, participants from both groups did not provide a corrected version of the conditional sentences given in the task, thus revealing that they did not assess such constructions as including mistakes (regarding either grammatical concord or context appropriateness). This observation applies especially to the COG group, where the percentage of correct answers was lower – 18.7%. In their case, the answers provided may have to do with a view of conditional types as part of a continuum or gradient scale – instead

of clear-cut categories – with a more predominant role of context, as previously proposed. It is also possible to conclude that the atypical (that is to say, non-canonical) verb phrase structures detected in this group also have to do with this, since traditional grammatical rules and structures appear to be important to a lesser extent, if not ignored. On the other hand, there appears to be an attempt to follow established verb patterns in the case of their TRAD counterpart, despite having obtained a similar percentage of correct answers.

Another interesting remark is related to the nature of the associations observed in MCA maps: there is a tendency for some components to be grouped together with certain conditional types, which may imply that those components will occur when such conditional construction is at play. In other words, there is a strong association between certain VP components and certain conditional types, examples of which have been accounted for previously in this section. On the other hand, it can also be seen that, when conditional types are disregarded, verb phrase components are associated in somewhat distinct clusters. In the case of the antecedent in TRAD answers, for instance, present tense verbs in present together with a marked absence of ‘have’/‘had’, or ‘have’/‘had’ with a marked absence of ‘will’/‘would’ can be seen as distinct clusters. In the case of the consequent for the same group, examples of clusters include present tense verbs in combination with ‘will’ and marked absence of ‘have’/‘had’, or past tense verbs in combination with ‘have’, ‘had’ and ‘would’. As far as COG answers are concerned, examples of clusters in the antecedent can be found in ‘would’, ‘have’ and ‘had’; or present tense verbs with marked absence of ‘have’/‘had’. Consequent answers for this group include present tense verbs and marked absence of ‘have’/‘had’, ‘will’ and ‘would’, or past tense verbs in combination with ‘have’ or ‘had’ as distinct clusters. Specific instances of the clusters observed can be summarised in Table 8 below.

	TRAD	COG
	V, h_Z	w_Wed, h_H, h_Hed
VP1	w_Z, h_Hed	v_V, h_Z
	V, h_Z, w_W	v_V, h_Z
VP2	Ved, h_H, w_Wed, h_Hed	w_W, w_Wed
		Ved, h_H, h_Hed

Table 8: Summary of clusters found in TRAD and COG groups

These observations may suggest that students from both groups are capable of differentiating among verb phrases and associating them to certain conditional types but are not successful in differentiating the components as such. It is possible to interpret, then, that these associations may reflect students' implicit, not explicit, knowledge about conditional constructions: whereas explicit knowledge is obtained by means of direct instruction, implicit knowledge is acquired indirectly from the learning environment. In the situation of this particular test item, successfully completing the task required application of explicit knowledge about grammatical patterns, an aspect that was covered in the instructional session for both groups. Given the orientation of each instructional session, however, knowledge about grammatical patterns was delivered in different ways, either focusing on grammatical patterns per se or linguistic context, as it was the case of TRAD and COG groups, respectively.

5.2.3 Quantitative data analysis for III – Sentence Completion:

The third test item consisted of ten¹ text excerpts including conditional constructions whose constituent verb phrases were presented as missing. Participants were requested to complete such conditional statements by using the prompts given in parenthesis next to each gap, which included the base form of each verb phrase. It was expected that such base forms needed to be changed into a verb form appropriate to the linguistic context while following syntactic patterns accordingly.

General results for this test item suggest that students from the TRAD group slightly outperformed their COG counterpart: whereas the former obtained a 35% of the total of correct answers for the item, the latter group obtained 31.5% for the same exercises. As far as the TRAD group is concerned, correct answers were distributed along the following lines: from a total of 260 answers and a maximum score of 20 points in the item, the lowest score obtained was 2 whereas the highest corresponds to 15. Each of these scores were obtained by 1 student, which is equivalent to the 7.7% of the total number of participants in the group. The highest frequency found was between 5 and 7 points, scores obtained by 53.8% of students in this group (7 participants). Other ranges observed are those between 8 and 9 points, obtained by only one participant, and between 10 and 13 points, obtained by two students (representing the 7.7% and 15.4%, respectively). The highest range corresponded to 14 points and above, obtained by 1 student (7.7% of the group total). This distribution could, therefore, be considered as right skewed, as illustrated in Figure 5.9.

In the case of the COG group, the following distribution for correct answers was found: from a total of 460 answers and a maximum score of 20 points in the item, the lowest score obtained was 1 whereas the highest was 16, each of them obtained by one student, corresponding to the 4.3% of the total of students of this group. The highest frequency

¹ It is important to note that although the total of the exercises were considered for the quantitative aspects of the analysis, only nine of them were included in the qualitative analysis and observations for this test item. The lack of consequent in exercise 3 did not allow for appropriate observations and was therefore disregarded for the sake of methodological consistency.

observed was between 5 and 7 points, scores obtained by 39.1% of students in this group (9 participants). On the other hand, the lowest frequency observed corresponds to a score of 14 points and above, obtained by only one student (4.3% of the total for the group). Other frequencies comprise ranges between 0 and 4 points, between 8 and 10 points and between 11 and 13 points, representing the 30.4%, 17.4% and 8.7% of the total for the group, respectively. This distribution of results can then be characterised as right skewed, as shown in Figure 5.10.

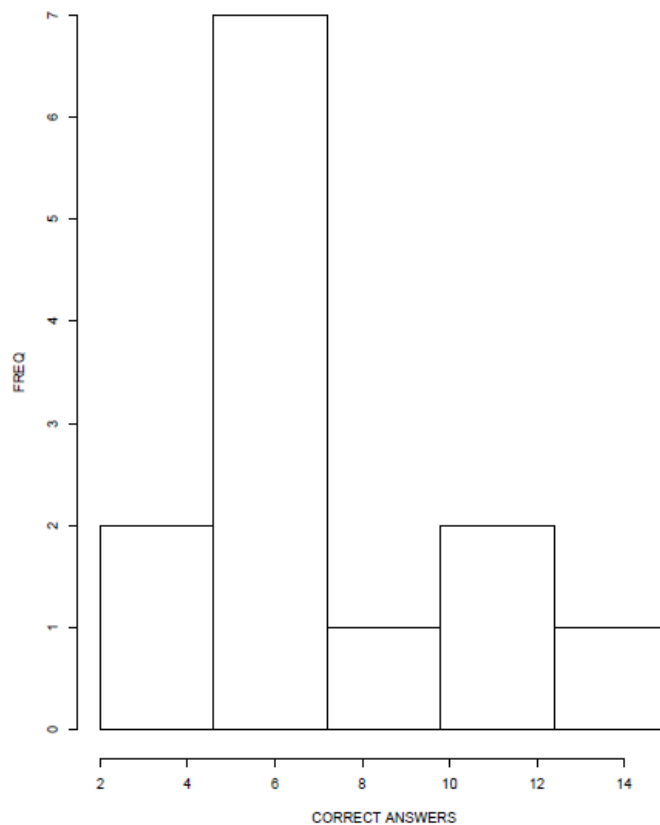


Fig.5.9: Distribution of correct answers for test item III – TRAD

Given its preponderance among participants' answers in both groups, analysis for this item will mainly be focused on observations of the answers provided in relation to their context of occurrence. This aspect is most prominent due to the fact that, on one hand, successfully completing the task implied observation of context and the subsequent integration of conditional constructions that were accordingly appropriate. On the other hand, students' performance did not display significant differences, hence the aim of this section

of identifying and accounting for differences between groups that go beyond the general results. In order to accomplish the aforementioned analysis, it was not only the conditional sentences at issue that were taken into consideration, but also the linguistic context in each exercise. An initial stage of such analysis involved focusing on the grounding elements found in the statements configuring such linguistic environment: more specifically, elements such as tense, modality, and aspect were considered. Especially for analytical purposes, grounding elements can be regarded as tokens of speakers' assessment of profiled situations in relation to reality. In addition, it is important to highlight that the results presented below included only those students' answers where context ambiguity was at issue, leaving aside constructions whose interpretation did not differ from the expected answers, including those assessed as totally correct: such response types were regarded as unproblematic in terms of context.

Following from the aforementioned stage of the analysis, it was noted that some of the answers from both groups, in contrast with incorrect answers, were assessed as partially correct due to incongruences between the constructions provided and the linguistic context in which they were supposed to occur, incongruences that were found to a considerable extent – albeit not exclusively – in hypothetical conditionals. This phenomenon could be explained by the fact that the linguistic context of such constructions comprised, as part of their background information, both factual and non-factual statements. In turn, the choice for a conditional construction and its subsequent verb phrases would become a matter of interpretation of the given context rather than the application of abstract grammatical rules. As a result, interpretation of conditional sentences in the previously mentioned exercises may result as ambiguous regardless of the expected answer, implying that there is a possibility for such constructions to be interpreted in a way other than the expected.

	Factual	Hypothetical	Counterfactual	TOTAL
TRAD	12/65	12/39	0/13	24/117 (20,5%)
COG	15/115	33/69	0/23	48/207 (23,2%)

Table 9: Distribution of ambiguously interpreted constructions regarding conditional type

It can be observed that, in a global sense and taking into account all answers provided in this item, the phenomenon of alternative interpretations of conditionals is given more predominantly among COG students; in more specific terms it is more prominent in TRAD group for factual conditionals whereas the same phenomenon is more frequently observed in the COG group for hypothetical conditionals, as displayed in Table 9. Counterfactual conditionals do not display any alternative interpretations in either group. Given these outcomes, it can initially be suggested that students from the COG group display a tendency to configure linguistic context in ways that are more variable as compared to their TRAD counterpart. This tendency is especially observed in the case of hypothetical conditionals, where the linguistic context presented was configured by means of factual and counterfactual statements that allowed for a greater variety of interpretations.

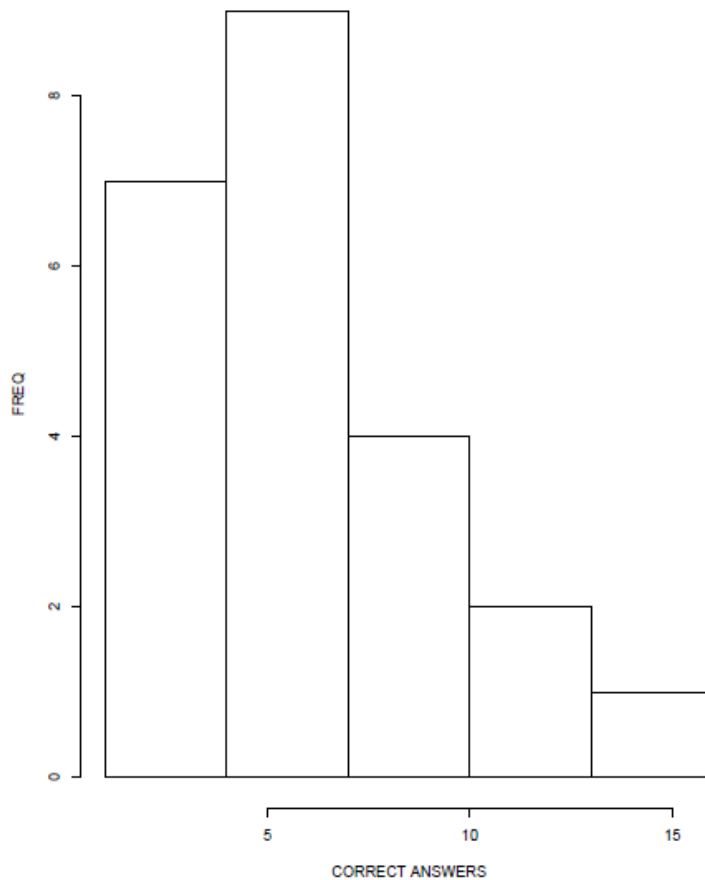


Fig.5.10: Distribution of correct answers for test item III – COG

Additionally, considering only those constructions with an alternative interpretation in each conditional type allows for a more precise analysis in terms of implications for their understanding. At this point, then, it becomes important to highlight the interpretation regarded as the target of conditional sentences originally meant as factual or hypothetical, respectively. In the case of the latter, it could be observed that such constructions were prominently interpreted as factual conditionals, whereas the reverse situation was given in the case of former – that is to say, factual constructions were interpreted as hypothetical. Table 10 below displays the number of such alternative interpretations according to conditional type.

	Total	Conditional type		Total	Alternative	Counterfactual	
		Factual Alternative (hypothetical)	Hypothetical Alternative (factual)			Total	Alternative
TRAD	65	4 (6.1%)	39	5 (12.8%)	13	0 (0%)	
COG	115	7 (6.1%)	69	17 (24.6%)	23	0 (0%)	

Table 10: Distribution of alternatively interpreted constructions according to conditional type

In terms of construal, the phenomenon of alternative interpretations observed can be considered as an argument for the understanding and interpretation of conditionals as part of a gradient scale in terms of epistemic proximity and distance. In this scale, hypothetical constructions would be conceived as a less delimited category of conditional sentences, whereas factual and counterfactual conditionals are at the respective opposite poles (and can be regarded, therefore, as more delimited categories). Nevertheless, it is important to highlight that the absence of alternative interpretations in the case of counterfactual conditionals may imply a conceptualisation of these constructions that differs from their linguistic expression. Such a conceptualisation, as will be covered in detail in the discussion chapter of this research work, would be based on a duality between events deemed as possible and those deemed as impossible. This would imply that counterfactuality would be conceived as opposed to both factuality and hypotheticality, a phenomenon that, in combination with context malleability, would deny the possibility of interpreting and expressing counterfactual

situations by means of either factual or hypothetical conditionals. On the other hand, the opposite situation would be the case of hypotheticality and factuality, which is reflected on the fact that participants displayed a tendency to interpret hypothetical situations as factual and express them accordingly. This was particularly prominent in the case of COG students given their greater context awareness, which resulted in a more varied context interpretation and subsequent malleability of constructions.

5.2.4 Quantitative data analysis for IV – Writing:

The fourth and final test item consisted of five pairs of prompts, essentially visual but also textual to a smaller degree, representing different types of situations – factual, hypothetical or counterfactual. Participants were requested to observe the situations depicted and provide a suitable conditional construction as a description, which would correspond to any of the three types of conditionals discussed in the instructional sessions. The choice of factual, hypothetical or counterfactual conditionals would rely largely on students' individual interpretation of the prompts. It was expected that the constructions provided followed syntactic patterns accordingly as well as appropriateness to the context given.

Global results for this test item suggest that students from the TRAD group slightly outperformed their COG counterpart: whereas the former obtained a 49% of the total of correct answers for the item, the latter group obtained 45.7% for the same exercises. As far as the TRAD group is concerned, correct answers were distributed along the following lines: from a total of 260 answers and a maximum score of 20 points in the item, the lowest score obtained was 4 whereas the highest corresponds to 14. Each of these scores were obtained by one student, which is equivalent to the 7.7% of the total of participants in the group. The highest frequency found was between 11 and 12 points, scores obtained by 38.5% of students in this group (5 participants). Other ranges observed are those between 4 and 6 points, between 7 and 8 points and between 9 and 10 points, all of them obtained by two students

(representing the 15.4% of the total number of group participants). The highest range corresponded to 13 points and above, also obtained by two students (15.4% of the group total). This distribution could, therefore, be considered as uniform, as illustrated in Figure 5.11.

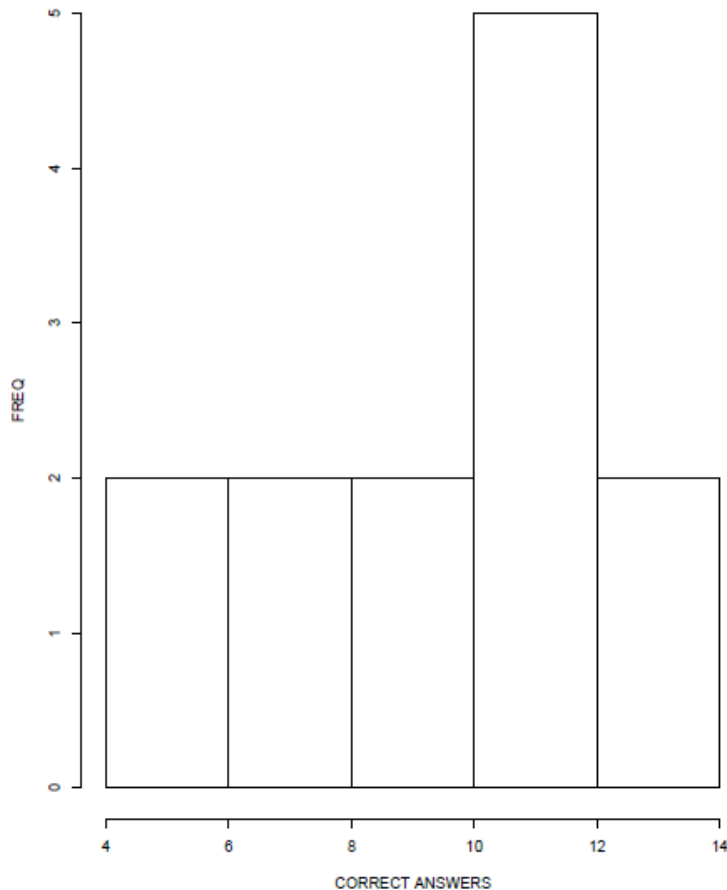


Fig.5.11: Distribution of correct answers for test item IV – TRAD

In the case of the COG group, correct answers were distributed along the following lines: from a total of 460 answers and a maximum score of 20 points in the item, the lowest score obtained was 1 whereas the highest was 14, each of them obtained by two and six students, corresponding to the 8.7% and 26.1% of the total of group participants, respectively. The highest frequency observed was between 12 and 14 points, scores obtained by 39.1% of students in this group (9 participants). On the other hand, the lowest frequency observed

corresponds to scores between 1 and 4 points, obtained by three students (13% of the total for the group). Other frequencies comprise ranges between 5 and 6 points, between 7 and 8 points and between 9 and 11 points, representing the 13%, and 17.4% of the total for the group, respectively. This distribution of results can then be characterised as left skewed, as shown in Figure 5.12.

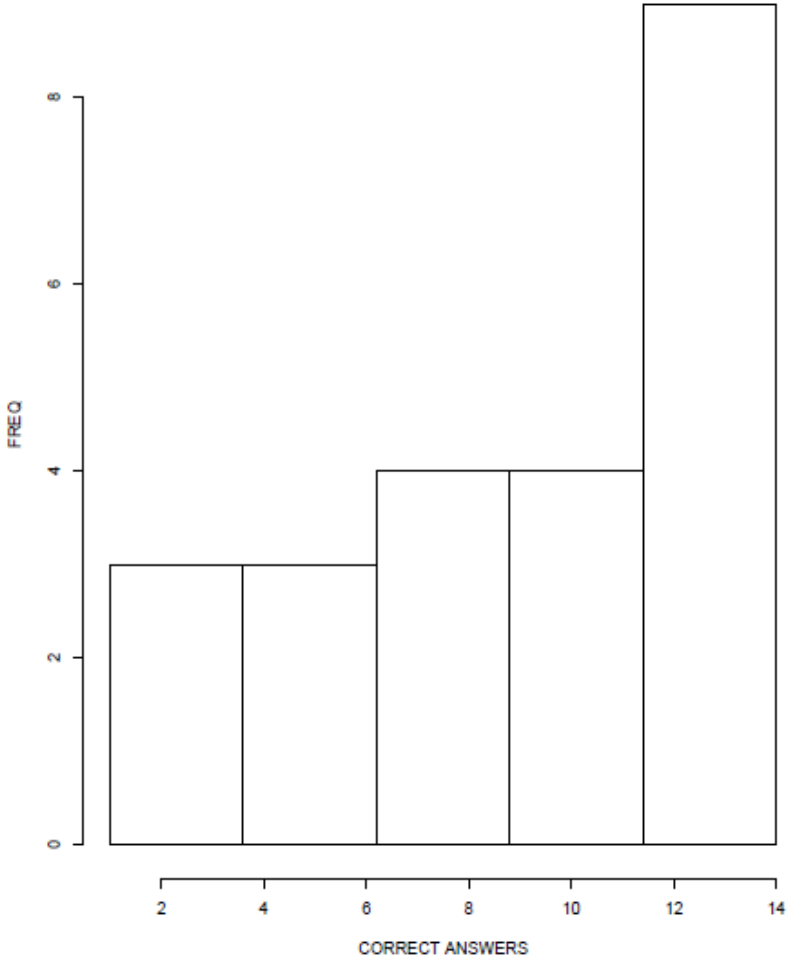


Fig.5.12: Distribution of correct answers for test item IV – COG

In a similar manner to observations made for the previous test item, analysis for this item will be focused on observations of answers provided in relation to context of occurrence. This is due to the fact that elicitation of answers was largely based on interpretation of the given prompts – both visual and textual – that configured the context for each exercise.

Successful completion of this item implied that participants were able to observe such configured context and incorporate conditional constructions, accordingly. Therefore, a main concern for analysis of this item corresponds to the conditional type produced by students and its relation with such configured context. More specifically, the analysis implied observation and interpretation of bar plots as well as association plots for each group's responses. Whereas the former show the global distribution of observed answers according to conditional type, the latter also visually represents associations based on residual values. Residuals are calculated on the basis of the difference between observed and expected values divided by the square root of the expected value. The numerical result represents what values are more distant from what would otherwise be an expected distribution on the basis of the given frequencies. Thus, the most marked tendencies are displayed, either these are positive or negative values (higher or lower than the expected). Visually, the association plot on the horizontal dimension shows the actual relative distribution of the values. On the vertical dimension, it shows the magnitude of the residual value. The greater the values, the more significant these are.

From the analysis conducted, then, follows the question on which alternative interpretations were found in each of the groups. As far as the TRAD group is concerned, a tendency was found towards an overall interpretation of the prompted situations as factual, along with their subsequent expression of such interpretation as factual conditionals, as shown in the association plot from Figure 5.13. This is especially applicable to situations presented as factual – and thus fulfilling the expected results – as well as hypothetical. On the other hand, the opposite was found for counterfactual conditionals: these are interpreted as counterfactual and as hypothetical to a lesser degree, as expected for the results for this section, and a tendency is observed towards avoiding interpretations of counterfactual situations as factual. Concerning situations presented as hypothetical, these also appear to be interpreted and realised as factual (albeit to a smaller extent as compared to their factual counterpart). Regarding the COG group, the tendencies found can be described as follows: as displayed in the association plot from Figure 5.14, it was observed that factual situations tend to be interpreted accordingly and therefore described by means of factual conditionals,

whereas a minor tendency was found to interpret hypothetical situations as such and express them as hypothetical constructions accordingly. On the other hand, counterfactual situations were expressed mainly by means of counterfactual conditionals – and a minor tendency was observed towards their interpretation as hypothetical –, and a tendency was found to avoid the interpretation of counter to fact situations as factual.

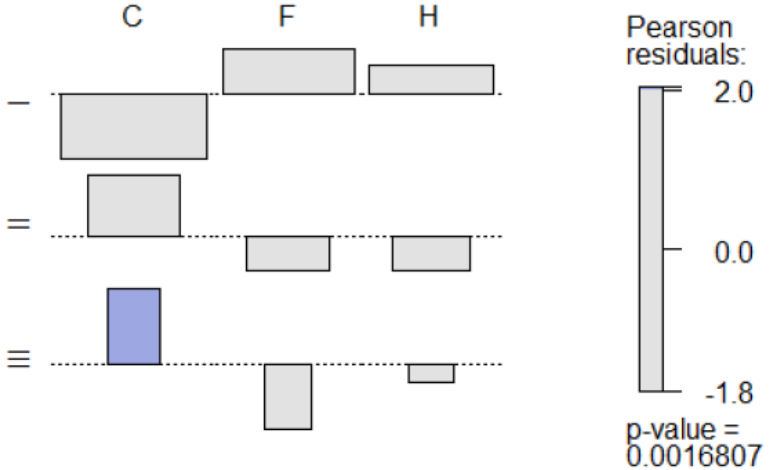


Fig.5.13: Association plots for test item IV – TRAD

Although the tendencies found were relatively similar in both groups, important differences, based on contrastive observation of the association plots, can be highlighted regarding the degree to which such tendencies are given in each case. As far as the COG group is concerned, for instance, the association found between counterfactual situations and their interpretation – and their subsequent expression – as hypothetical is greater as compared to its TRAD counterpart. In both cases, this finding may account for the convergence towards hypotheticality observed in participants’ answers. Likewise, COG group was observed to display a greater tendency to avoid interpretation of counterfactual conditionals as any other type of construction as compared to the TRAD group.

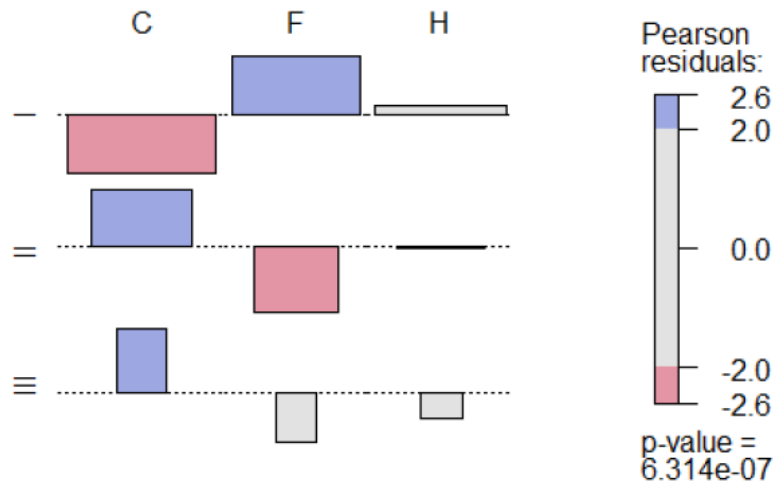


Fig.5.14: Association plots for test item IV – COG

It is interesting to highlight that, in a similar manner to the previous test item, the associations between the situations presented in the exercises and the alternative interpretations found can be understood on the basis of the existence of a gradient scale of epistemic proximity and distance. Again, hypothetical constructions would be conceived as a less delimited category of conditional constructions, whereas factual and counterfactual conditionals are at the respective opposite poles of the continuum (and can be regarded, therefore, as more delimited categories). Such a phenomenon would be reflected in the tendency in both groups to express counterfactual situations as hypothetical. At the same time, the choice of hypothetical sentences for counterfactual situations can be explained in terms of epistemic distance: hypothetical conditional types are located within a greater epistemic proximity, which, in turn, makes them more intuitively accessible for students. Alternatively, the tendency to avoid counterfactual constructions as expression of factual situations and vice versa may account for a conceptualisation of the constructions at issue based on a duality between events deemed as possible and those deemed as impossible (see section 5.2.3 in this chapter). In addition, the greater tendency in both groups to interpret situations as factual and hypothetical can be understood as a matter of accessibility: the type of conditionals elicited in factual and hypothetical situations tend to be more intuitively

accessible than those elicited in counterfactual ones. In other words, situations conceived as possible by students are more accessible than those conceived as impossible.

Another important aspect to be discussed in the present section is related to the manner ambiguity has been considered. This aspect is in contrast to the cases of ambiguity studied in the previous test item: in that case, a considerable number of students from both groups interpreted the context – textually configured only – in ways that were different to the expected answers. Such answers were possible due to the fact that exercises from the previous test item presented an already delimited linguistic context that allowed for possible cases of ambiguity. Therefore, a plausible conclusion from that analysis was the idea that context was malleable in those exercises with an ambiguously interpreted context. In the case of the present test item, on the contrary, both visual and textual prompts presented in each of the exercises allowed for varied interpretations that, however, cannot be assessed as ambiguous *per se*. A reason for this phenomenon could lie in the nature of the prompts given: these can be observed as configuring less delimited a context, so that it became possible for students to *conceive* situations in more alternative ways – as compared to the previous item – in first place and provide a linguistic expression accordingly. A context which is not well delimited may allow for a greater freedom of choice for the situations presented in the exercises for this test item.

Chapter 6

Conclusions

6.1 General conclusions

The present study aimed at evaluating the effectiveness of two approaches, namely traditional rule-based and cognitively-oriented, applied to the teaching of English conditional constructions. In order to achieve this goal, 36 university students were sorted into two groups and were respectively instructed under the approaches above mentioned. Afterwards, a post-test common to both groups was applied in order to collect the necessary data regarding the degree of attainability of conditional sentences and their components. Following from the quantitative and qualitative analyses made of the data collected, interesting insights can be made about matters such as the status of each of the conditional types as distinct categories, epistemic proximity and distance and differences between the groups in terms of their attainability of the constructions taught.

Regarding the status of each conditional type as distinct categories, it has been found that, if a category of “conditional constructions” is to be postulated, the three conditional types under study would correspond to subordinate members of such a category. Furthermore, hypothetical conditionals were found to be less a delimited category as compared with factual and hypothetical constructions. This phenomenon was observed in those exercises requiring participants’ implicit knowledge as well as those which assessed implicit knowledge. More specifically, it was observed in the case of the former that the correctness of grammaticality judgement for hypothetical sentences is not constant in either group. In turn, this implies that participants’ assessment of these constructions is not clear in all the instances provided in the post-test. Such a phenomenon contrasts with what was observed in factual and counterfactual constructions: given the varying complexity in each case, factual constructions are easier to be correctly assessed as grammatical (in different degrees), whereas counterfactual sentences represent greater difficulty for correct grammaticality judgement.

Likewise, the status of hypothetical conditionals as a less delimited category of conditional sentences is observed in those test items which involved the observation of syntactic patterns within a linguistic context – namely, test items concerning completion of sentences and writing. In that case, it has been observed that hypothetical conditionals may have been interpreted ambiguously by participants from both groups. In such situations, the constructions at issue have been interpreted especially as factual conditionals, as displayed in the analysis for the third test item. Contrastively, the remaining conditional types were interpreted as expected – this is, factual and counterfactual situations were expressed by means of the respective conditional type. The status of hypothetical conditionals as a less delimited category can reflect the fuzziness of boundaries between the members of the “conditional sentences” category.

Another interesting issue regarding the data collected in this study is related to how the notions of epistemic proximity and distance are realised in the answers provided in the post test. Based on the notion of continuum introduced in the present work, it is proposed that conditional constructions can be regarded as part of a gradient scale in terms of epistemic control of reality, with distance and proximity as its corresponding parameters. Along this continuum, factual conditionals can be understood as most proximal to reality, whereas counterfactual constructions would be located most distantly. In other words, students generally used factual conditionals to express situations that were conceptualised as close to reality, whereas counterfactual constructions were in use for situations conceptualised as contrary to reality. However, there was also shown the possibility that factual situations were interpreted as neither close to nor distant from reality and were subsequently expressed by means of hypothetical constructions. From this phenomenon observed, it is possible to conclude that the lack of clear boundaries for the category of hypothetical conditionals renders this type of constructions ambiguous.

Additionally, there was observed a clear tendency to avoid the interpretation and subsequent expression of situations contrary to reality as neither hypothetical nor factual. Instead, these were expressed by means of counterfactual sentences. Thus, the question arose on the possibility for hypothetical constructions to be ambiguously interpreted and the

impossibility for counterfactual constructions to display the same phenomenon. Together with the evidence found, the phenomenon at issue leads to proposing two different levels for the conception of reality: the first of these would correspond to the gradient scale concerning epistemic distance and proximity previously described, where construal of the three conditional types is at issue. However, a second scale is proposed regarding the conceptualisation of situations deemed as possible and those deemed as impossible. According to the analysis of the answers found, whenever a real or an unreal situation was presented, students would provide factual or counterfactual conditionals, accordingly. In turn, these conditional types would have their corresponding conceptual equivalent in the real and unreal situations. Nevertheless, this would not be the case of hypothetical constructions, which, as will be herein suggested, do not have a clear-cut conceptual equivalent. The lack of such equivalent would explain, at least partially, the fuzziness of boundaries for the category of “hypothetical conditionals”. Alternatively, it is put forward that hypothetical conditionals correspond to the linguistic expression – adopting a particular construal – of the convergence of two mental spaces, namely the real and the unreal, illustrated in Figure 6.1 below:

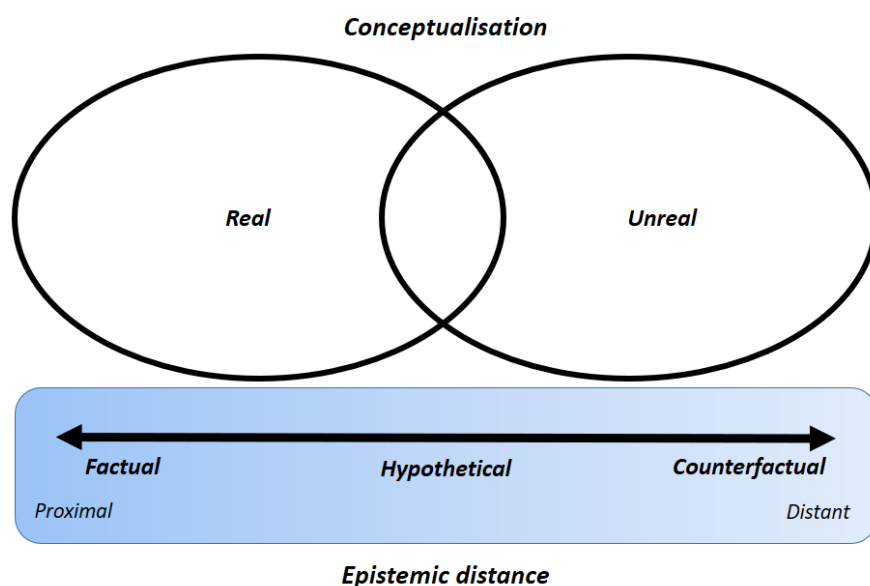


Fig.6.1: Representations for epistemic distance and conceptualisations of conditional sentences

Finally, a third aspect to be herein discussed corresponds to the differences found between the groups under study in terms of the degree of attainability of the constructions taught. Considering that the quantitative analysis showed no significant differences obtained in both groups, the main purpose of the qualitative analysis was, therefore, to detect and account for differences in test performance. In other words, the focus of the qualitative analysis was what, and not how much, was attained in each group. This issue reflects, to some extent, the idea that the number of conditional sentences attained is not precisely an indicator of how deeply such constructions were understood, hence the necessity of a qualitative stage in the analysis. Regarding this dimension, it was found that, although overall results were similar, learning of the constructions under study was given differently between the groups. The previously described phenomenon of ambiguity in answers involving hypothetical conditionals, for instance, was manifested to a greater extent in the case of the students under a cognitively-oriented instruction. Their traditional rule-based counterpart, on the other hand, demonstrated a greater adherence to the grammatical patterns instructed. Such a difference can be accounted for a greater context awareness and subsequent malleability from students under the cognitively-oriented approach. A greater context awareness, in turn, can be regarded as being in accordance with a treatment of conditionals under a cognitive perspective, since meaning in this approach (both sentence and pragmatic meaning reflected in context) gains preponderance as compared to traditional teaching methodologies.

Contrasts found in attainability of the constructions involve not only differences between groups but also between conditional types. Generally speaking, it was found that test exercises where factual conditionals were at issue obtained a higher number of correct answers, whereas the opposite was observed in the case of counterfactual conditionals. This finding can be explained in terms of the greater epistemic proximity of factual constructions, which renders them easier to interpret as such and in consequence more easily attainable. A higher simplicity in grammatical form can also explain this phenomenon.

6.2 Limitations of the study

One of the main difficulties that were faced in the implementation of the research work herein reported corresponded to the size of the sample. Initially, 60 students had been considered to take part in the instructional and assessment sessions. Due to time constraints, nevertheless, only 36 students were available for the study, a quantity that can constitute a small sample for research purposes and may pose a problem for representativeness of the sample. Given this scenario, consequently, a convenience sampling method was selected for the present research work. Likewise, difficulties in relation to time constraints implied that few sessions were implemented, as well as the absence of a pre-test that would have been useful when accounting for a more precise contrast between the groups under study. Despite these limitations, however, the test material was exhaustive enough to provide a sufficient number of responses and, subsequently, a necessary amount of data was collected. Thus, it is possible to state that the analysis and its results are sufficiently reliable and allow to draw valid conclusions on the subject herein discussed.

6.3 Suggestions for further studies

Based on the limitations expressed above, it will be herein suggested that future research on the matter may consider in the first place a larger sample size as well as a different sampling method, namely probability sampling. With a greater number of randomly selected participants, it will be possible to conveniently address the problem of sample representativeness, which will in turn allow to project results and valid inferences at a larger scale. This will also allow to validate the results of the present study. Together with this aspect, future studies may consider dealing with the problem of time constraints, which may imply the implementation of a pre-test as well as a greater number of instructional sessions:

such measurements may result as beneficial for research purposes insofar as they may allow for a more precise contrast between groups as well as differences before and after the instructional sessions. Likewise, these suggestions may sanction a more profound discussion on the attainability of the constructions under study. Finally, the classification of conditional sentences based on their hypotheticality degree was followed in the present research work considering that this typology is the most widely studied and adapted into pedagogical grammars. However, future research on the matter may be enriched if other more inclusive classifications of conditional constructions are followed, such as those reviewed in the present study. Such typologies cover a wider range of constructions and, accordingly, a greater variety of linguistic contexts and speech situations. This, in turn, may provide further insights into such a complex type of grammatical features as conditional sentences in English.

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APPENDIX A: TRAD instructional material

CONDITIONAL SENTENCES IN ENGLISH

CONDITIONAL I

- Used to express conditions with a possible result in the future:

If ... (present), will + verb

- For example:

Lisa: I've lost my watch. Have you seen it anywhere?

Sue: No, but **if I find it, I'll tell** you.

→ Sue feels there is a real possibility that she will find the watch.

After if, we normally use the present simple for the future:

- It's raining hard. We'll **get** wet if we **go out**.
- I'll **be** angry if it **happens** again.
- Hurry up! If we **don't hurry**, we'll **get** late.

We use **if** for things that will possibly happen:

- I might go shopping later. If I **go** shopping, I'll **buy** some food.
- If it **rains** this evening, I **won't go out**.
- If they **don't come** soon, I'm **not going to** wait.

going to is also possible instead of **will**

CONDITIONAL II

- Used to express conditions with a hypothetical result (or less likely to happen):

If ... (past simple), would + verb

- For example:

Sarah: If I **knew** Paul's number, I **would phone** him.

→ Sarah doesn't know his number, she is imagining the situation. The real situation is that she doesn't know his number.

When you imagine a situation like this, you use *if + past*. But the meaning is present, *not past*:

- Tom **would read** more if he **had** more time.
- If I **didn't want** to go to the party, I **wouldn't go**.

After *if*, you can use **were** instead of **was**. So you can say:

If I **were** you, I wouldn't buy that coat or If I **was** you...

I'd go out if it **weren't** so cold or if it **wasn't** so cold

We do not normally use *would* in the *if-part* of the sentence:

- If I **were** rich, I **would** have a yacht. (*not if I would be rich*)
- If I **didn't** go to the party, they **would** be upset (*not if I wouldn't go*)
- I'm not tired. If I **went** to bed now, I **wouldn't** sleep. (*not if I would go*)

CONDITIONAL III

- Used to talk about the past:

If ... (past perfect), would have + verb (past participle)

- For example:

Rachel: If I **had known** you were in hospital, I **would have gone** to see you.

→ Rachel did not know her friend was in hospital, so she did not go to see him.

More examples:

- I decided to stay at home last night. I **would have gone** out if I **hadn't been** so tired.
- If he **had been** looking where he was going, he **wouldn't have walked** into the wall.
- The view was wonderful. If I **'d had** a camera with me, I **would have taken** some photographs.

'd can be **would** or **had**:

If I **'d** seen you, I **'d** have said hello.

had seen

would have said

Compare:

- I'm not hungry. If I **were** hungry, I **would eat** something. (*now*)
- I wasn't hungry. If I **had been** hungry, I **would have eaten** something. (*past*)

Do not use **would** in the if-part of the sentence. We use **would** in the other part of the sentence:

- If I had seen you, I would have said hello. (*not if I would have seen you*)



APPENDIX B: COG instructional material

*Interpreting and using if-
constructions in English*



If-constructions in English: some examples

If I find your watch, I'll tell you.
If I found your watch, I'd tell you.
If I'd found your watch, I would've told you.

How do you interpret each of these sentences?
How different is your interpretation in each case?
What do you think?

Let's see these examples in more detail...



This part of the construction evokes what we know about the situation.

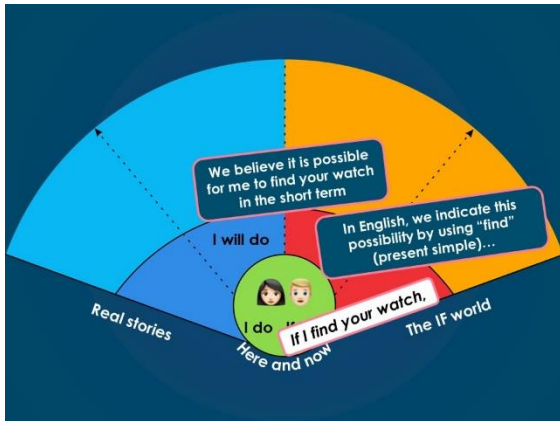
We use this information to imagine alternative results (that exist or are possible to exist)

If I find your watch, I will tell you.

If I find your watch, I will tell you.

We have different language resources to indicate both the background information...
... and the alternative results

But what do we know about the story in this sentence? 🤔



What happens in the rest of the examples?

If I found your watch, I would tell you.

We believe it is possible for me to find your watch...

...but I haven't found it yet!

What happens in the rest of the examples?

If I found your watch, I would tell you.

By "if" we indicate this is not a fact, but just a small possibility

Now we express this remote possibility by using "found" (past simple)...

... and we also indicate a result in an alternative future ("would tell")

We believe it is possible for me to find your watch, but I don't have it

Now we express this remote possibility by using "found"...

I did

I would do

If I found your watch.

Real stories

Here and now

The IF world

"If" now indicates this is a small possibility...

... and "would tell" indicates a result in an alternative future

... I would tell you.

If I found your watch.

Real stories

Here and now

The IF world

Last but not least...

If I had found your watch, I would have told you.

We believe it is not possible for me to find your watch...

... and this situation cannot be changed 😞

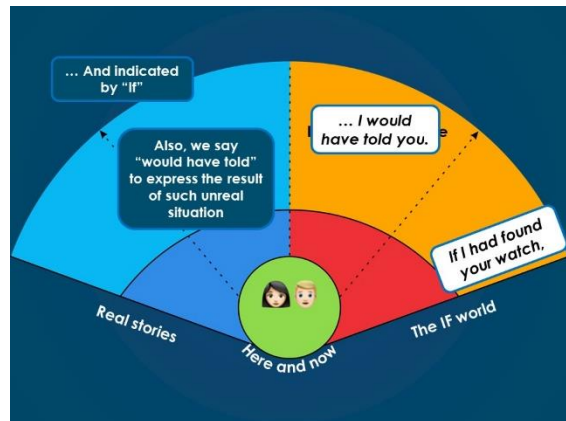
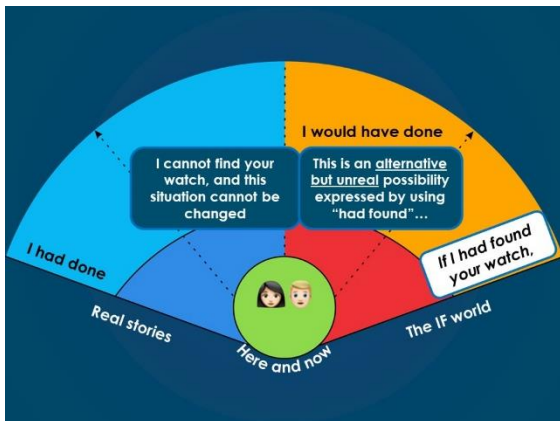
Last but not least...

If I had found your watch, I would have told you.

By "if" we point out an *alternative but unreal* situation where I found your watch

And expressed by "had found" (past perfect)

Additionally, we say "would have told" to indicate the result of such unreal situation



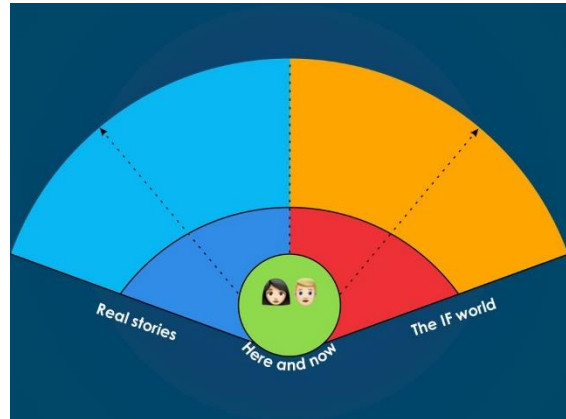
Now it's your turn...

How can you represent the information in the following sentences?

1. If I'd known you were in hospital, I would've gone to visit you.

2. Tom would read more if he had more time.

3. If I go shopping, I'll buy some food.



APPENDIX C: Test material

Conditional constructions in English – Test

General instructions: read carefully the instructions for each section. Write using clear handwriting. Answer all of the questions (do not leave any unanswered).

I. Grammaticality judgement: instructions

Read the following excerpts including conditional constructions (in **bold** type). Decide if such constructions are used in a grammatically correct way by choosing one of the four options given. Mark your option with an X.

1. What does DACA do for Dreamers? **If their applications are approved by US immigration officials, DACA recipients can obtain valid driver's licenses, enrol in college and legally secure jobs.** The programme does not give Dreamers a path to become US citizens or legal permanent residents.
 - a. Grammatical
 - b. Partially grammatical – error in form
 - c. Partially grammatical – error in context
 - d. Ungrammatical (both b. and c.)

2. The citrus aroma calms the nervous system, reduces anxiety, and helps relieve tension after a hard day. **If you didn't have lemon essential oil, you would use a piece of lemon.**
 - a. Grammatical
 - b. Partially grammatical – error in form
 - c. Partially grammatical – error in context
 - d. Ungrammatical (both b. and c.)

3. We all know a person who's boasted about the length of time they've abstained from showering or bathing. It's either an odd point of pride or a self-deprecating knock on their personal hygiene. Either way, **if they kept it up — say, for an entire year — they would smell awful, would run the risk of infection and would be covered in acne and bumps.**
 - a. Grammatical
 - b. Partially grammatical – error in form
 - c. Partially grammatical – error in context
 - d. Ungrammatical (both b. and c.)

4. The Internet is full of stories about people who've altered beyond recognition after giving up their bad habits. But what happens if one does the opposite? **How would your health and appearance change if you decided to do something harmful on a regular basis?**

- a. Grammatical
- b. Partially grammatical – error in form
- c. Partially grammatical – error in context
- d. Ungrammatical (both b. and c.)

5. **The "synthesis" between the theory of evolution by natural selection and classical genetics, which took place in 1930s-40s, would have taken place much earlier if Darwin had been aware of Mendel and his work.**

- a. Grammatical
- b. Partially grammatical – error in form
- c. Partially grammatical – error in context
- d. Ungrammatical (both b. and c.)

6. In an Aug. 18 article for JAMA Ophthalmology, two eye experts explained **what will actually happen to your eyes if you look at an eclipse**. There are two types of damage sunlight can inflict.

- a. Grammatical
- b. Partially grammatical – error in form
- c. Partially grammatical – error in context
- d. Ungrammatical (both b. and c.)

7. Lemon has another amazing property: inhaling its aroma every day, a person becomes more concentrated and their mental activity and memory improve. Even at work, **people would make fewer mistakes if there's the smell of lemon**. This conclusion was made by Japanese scientists.

- a. Grammatical
- b. Partially grammatical – error in form
- c. Partially grammatical – error in context
- d. Ungrammatical (both b. and c.)

8. We may not know exactly how England's King Harold died at the Battle of Hastings in 1066, but die he certainly did, in spite of later rumours that he fled and became a hermit. **But what if it had been Duke William's lifeless body stretched out on English soil, not Harold's?**

- a. Grammatical
- b. Partially grammatical – error in form
- c. Partially grammatical – error in context
- d. Ungrammatical (both b. and c.)

9. **“If plant evolution continued as it has in our modern world, the herbivorous dinosaurs would almost certainly have had a diet primarily of flowering plants,”** notes Matt Bonnan a palaeontologist at Stockton University in New Jersey. “Given that they are somewhat easier to digest, perhaps we would have seen an overall decrease in body size... the gigantic sizes of Mesozoic dinosaurs might have disappeared.”

- a. Grammatical
- b. Partially grammatical – error in form
- c. Partially grammatical – error in context
- d. Ungrammatical (both b. and c.)

10. After all, the single greatest store of information about 11th-century England, Domesday Book, was a conqueror's book, made to record the victor's winnings, and preserved as a powerful symbol of that conquest. Without Domesday Book, which has no serious parallel in continental evidence at this date, many English villages and towns could have languished in obscurity for another century or longer. **So Harold's England will be less visible to historians. If, of course, an England had survived to be ruled over at all.** One of the most striking characteristics of pre-Conquest England are its deep political divisions.

- a. Grammatical
- b. Partially grammatical – error in form
- c. Partially grammatical – error in context
- d. Ungrammatical (both b. and c.)

II. Sentence correction: instructions

Read the following excerpts including conditional constructions (in **bold** type) and choose from the options given to provide a corrected version of such constructions. You have to choose one option from each column, but you do not need to choose from all of the columns.

1. The Earth is 4.5 billion years old, and modern humans have only been on it for about 200,000 years. **If we have not disappeared, it would not have taken long for evidence of our existence to disappear too.**

If we	have	disappear,	it	does not	take	long for evidence of our existence to disappear too.
	had	disappeared,		will not		
	will			would not		
	would					

2. **You would have been three times more likely to have a car accident if you get six or fewer hours of sleep each night,** according to the National Sleep Foundation.

You	have	have	be	three times more likely to have a car accident if you	have	have	get	six or fewer hours of sleep each night.
	will	had	been		will	get	got	
	would				would	had		
						got		

3. Many of the diverse flavours and nutritional components in our food are the direct result of bees at work. And, without the crucial role bees play in agriculture, the world's food supplies would likely suffer. **If there had been no bees, our food supply will be less varied and less available.**

If there	are	are	be	no bees, our food supply	is	have	be	less varied and less available.
	have had	were will would	been		will would	had	been	

4. The two-hour rule states that if a passenger arrives within two hours of their missed flight, the airline employee can put you on the next flight with the same airline on standby at no charge. **If you had missed the last flight of the day, you will have been standby on the first flight the next day.**

If you	have	have	miss	the last flight of the day, you	are	have	be	standby on the first flight the next day
	will would	had	missed		have will would	had	been	

5. Ingesting too much of a good thing can be unproductive and possibly destructive. **If you over consume vitamin C, your system's protective mechanism would have expelled the excess through urine**, and ingesting too many vitamin supplements can have many potentially toxic effects.

If you	have	have	over consume	vitamin C, your system's protective mechanism	have	have	expel	the excess through urine.
	will	had	over consumed		will	had	expelled	
	would				would			

6. **If the asteroid had arrived mere moments earlier or later, rather than hitting the shallow waters of Mexico's Yucatan Peninsula, it would plunge into the deep sea of the Pacific or Atlantic oceans**, absorbing some of the force and limiting the expulsion of sulphur-rich sediments that choked the atmosphere for the months or years ahead.

If the asteroid	have	have	arrive	mere moments earlier or later, it	have	have	plunge	into the deep sea of the Pacific or Atlantic oceans.
	will	had	arrives		will	had	plunges	
	would		arrived		would		plunged	

7. "It's a significant decision – not just because London is a big taxi market but also because it might set a precedent for other cities that are of two minds about Uber," according to Kartik Hosanagar, professor at the Wharton School of the University of Pennsylvania. Arun Sundararajan, a professor at New York University's Stern School of Business, agreed. "It's important that this not start some sort of domino effect across the rest of Europe," said Sundararajan. **"It wouldn't have surprised me if more cities start to push back heavily** because they're trying to preserve their power."

It	does not	have	surprise	me if more cities	have	have	start	to push back heavily.
	had not	had	surprises		will		starts	
	will not		surprised		would	had	started	
	would not							

8. His is arguably the most famous presidential name in history: John F Kennedy, the man whose assassination is indelibly marked on America's memory. Conspiracy theories still abound over whether 46-year-old JFK's killer Lee Harvey Oswald really did act alone when he pulled the trigger as the open-top limousine drew level with that grassy knoll in Dallas. But while the whispers have never gone away, neither has the speculation about **how much the 35th president will change the world if he survived the shooting on November 22, 1963.**

How much the 35 th president	has	have	change	the world if he	has	have	survive	the shooting on November 22, 1963.
	will	had	changes		will	had	survives	
	would		changed		would		survived	

9. “A little of the sweet stuff is okay; the American Heart Association recommends consuming no more than 6 teaspoons of added sugar a day for women and 9 teaspoons daily for men. And you can keep eating unprocessed foods that contain natural sugar, like fruits and vegetables. Unlike added sugar, natural sugar hasn’t been stripped of the vitamins, minerals, and fibre Mother Nature packaged them in. But **if you cut down on your intake of added sugar, you would have started to accumulate some amazing body benefits.**”

If you	have	have		on your intake of added sugar, you	have	have	start	to accumulate some amazing body benefits.
	had	had	cut down		had	had	started	
	will				will			
	would				would			

10. “Many of the DACA recipients, some of whose records I reviewed, have outstanding accomplishments and **laudable ambitions which, if achieved, would have been of great benefit and service to our country.** They have an appreciation for the opportunities afforded them by our country. (...) At this time, our office has decided not to challenge DACA in the litigation, because we believe there is a better approach.”

If DACA recipients’ ambitions	are	have	achieve,	they	are	have	be	of great benefit and service to our country.
	had	had	achieved,		have	had	are	
	will		been achieved,		will		been	
	would				would			

III. Sentence completion: instructions

Read the following conditional constructions (in **bold** type) and complete them by filling the blanks with the verbs in the correct form.

1. DACA applies to unauthorised immigrants who were brought to the US as children, a group often referred to as Dreamers. **Immigrants _____ (be) eligible for DACA if they _____ (come) to the US under the age of 16** and have lived in the country since June 15, 2007.
2. Folklore suggests that swallowed gum sits in your stomach for seven years before it can be digested. But this isn't true. **If you _____ (swallow) gum, it _____ (be) true that your body cannot digest it.** But the gum doesn't stay in your stomach.
3. The so-called 'non-avian' dinosaurs didn't have a hope, and only the small, feathered flying dinosaurs we know today as birds would make it through. But **what if history _____ (take) a different course? What if the asteroid _____ (miss) or _____ (arrive) a few minutes earlier?**
4. Today, the 250-foot-deep, 1-mile-wide crater left by the blast is visible from space. **If North Korea _____ (decide) to blow up a hydrogen or thermonuclear device — and the most powerful in the Pacific — we _____ only _____ (hope) it is not close to the ground.** All of these scenarios assume North Korea sets off a thermonuclear device in a controlled way — via airplane, barge, balloon, or some kind of stationary platform.
5. Onions are toxic to canines because of the substance they contain known as thiosulfate. Since dogs do not have the enzyme used to digest this substance, onions become a harmful food for them. **Although rarely any observable side effects _____ (see) if your pooch _____ (consume) just a minimal amount of onions.**
6. While an occasional nibble of your dog's food will not hurt your cat, long-term feeding of food formulated for dogs certainly can. For proper nutrition, feed your kitty only food specifically labelled for cats. **Cats have different nutritional needs from dogs and _____ (become) malnourished if they _____ (feed) a diet designed for canines.**

7. **What _____ (happen) if everyone on Earth _____ (live) in one city?**
To get an idea, you have to look at the world's biggest and densest cities, like Tokyo. The greatest population density ever recorded was in the Kowloon Walled City in Hong Kong, where people were living at a density of 1.2 million per square kilometre. But you can fit everyone on Earth into one city without it looking like that, it just has to be a city the size of a whole country.
8. **If *Titanic* _____ never _____ (sink), she _____ (go) on as a prestigious liner on the North Atlantic passenger run.** During World War I, she would have been converted to either a hospital ship or, more likely, a troopship.
9. Since humans absolutely and entirely depend on the oxygen present in the atmosphere, **there _____ (be) no chance of our survival if it _____ (exist).** This is not only true of humans, but also of every creature that depends on oxygen, from the tiniest ants to the biggest blue whales.
10. **If you _____ (drink) a bottle of water here and there when you exercise or when you're hot, you _____ (be) fine.** Where you run into problems is drinking way too much too fast.

IV. Writing: instructions

Study the following pictures and write suitable conditional sentences to describe the represented situations. Use all of the conditional types studied in class.

1a.



Mary says, "If _____."

1b.



Mary says, "If _____."

2a.



Tom says, "If _____."

2b:



Tom says, "If _____."

3a.



Sara says to Susan, "If _____."

3b.



Sara says to Susan, "If _____."

4a.



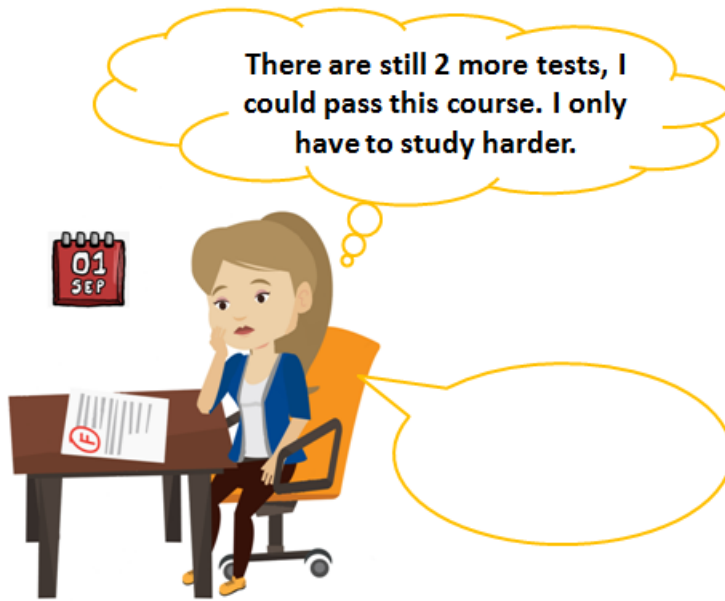
George's mother says, "If _____."

4b.



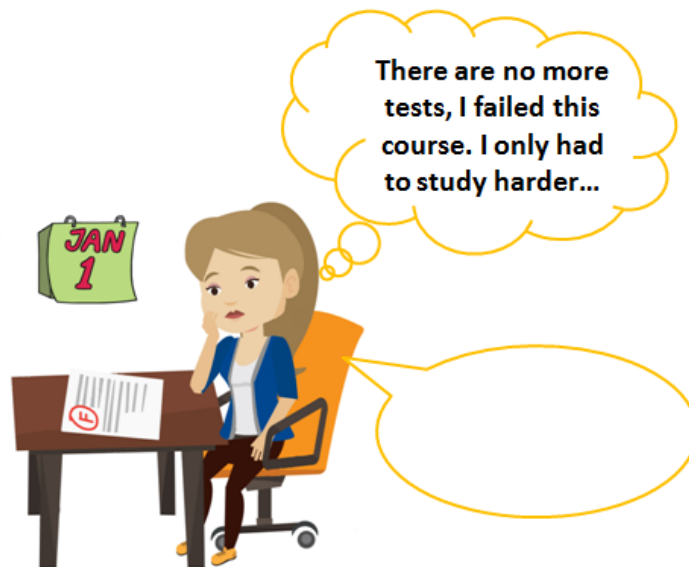
George's mother says, "If _____."

5a.



Nancy says, "If _____."

5b.



Nancy says, "If _____."