



Universidad
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FL
Facultad
de Lenguas

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“TEXT PRODUCTION IN UNDERGRADUATE EDUCATION:
FUNCTIONAL AND COGNITIVE COMPLEXITIES”

TRABAJO DE TESIS PRESENTADO POR ANGÉLICA GAIDO
DIRECTORA: DRA. CECILIA DEFAGÓ
CO-DIRECTORA: DRA. LILIANA ANGLADA

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ABSTRACT



This work explores the functional and cognitive complexities involved in written text production in undergraduate education. The objects of analysis are texts produced in the *Grammar II* course by students in the teaching, translation and research-oriented English study programs at *Facultad de Lenguas, Universidad Nacional de Córdoba*. Although the study has been carried out in a foreign language and in a specific field, it has been based on the belief that many of the problems observed are also present in texts produced in other disciplines and in the L1. Drawing on the theoretical and methodological tools of the ‘Sydney School’ (Martin & Rose, 2008; Rose & Martin, 2012), which relies on the general conceptual framework of Systemic Functional Linguistics (SFL) (Halliday, 1985; Halliday & Matthiessen, 2014), the study analyzes the structuring of knowledge in students’ texts and the contextual appropriateness of the organization of information in those texts. After this empirical stage, the work shows that although the SFL theory can account for the functional and some of the cognitive complexities involved in disciplinary written text production, it seems not to fully explain how knowledge becomes available for the production of effective texts, i.e. texts that respond to the demands of new contexts. Finally, it suggests a possible articulation of this framework with a cognitive theory of knowledge development known as Representational Redescription (RR) (Karmiloff-Smith, 1992, 2002, 2006), which explains how representations become restructured, manipulable and available to be meaningfully used in new contexts. The dialogue between these two theoretical perspectives is expected to provide insights that should lead to a deeper understanding of disciplinary writing in undergraduate education and enrich pedagogical interventions in content-oriented literacy.

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INTRODUCTION



Undergraduate education: the requirements of a new context

Effective text production in undergraduate education is one of the major obstacles to academic progress, affecting both individuals and institutions. Being actively involved in university life implies learning the types of activities that are conventionally carried out in this context together with the language required to perform them. This is certainly a complex achievement, as academia is about the construction and dissemination of specialized disciplinary knowledge, activities that are far away from the commonsense doings of everyday life and based on different demands from those required in previous stages in the educational process. That is, university students face the need to adopt new roles, approach knowledge from new perspectives, and understand and produce texts –mainly written- in which language is used in new ways (Hood, 2010). And many of them fail to achieve these goals.

Text production in undergraduate education then revolves around two inextricably related issues: disciplinary knowledge and writing. University studies involve the competent use of language to make meanings related to disciplinary content. Thus university students need to develop content-oriented literacy skills. On the other hand, the prevailing mode in which disciplinary meanings are negotiated in academic contexts is writing. It is mainly through written texts –read and produced- that students develop their knowledge of a discipline. That is, their apprenticeship into the field implies learning the ways in which the discipline construes and structures its knowledge predominantly in written forms. In general, university students have no previous training in writing in subject areas and they therefore tend to draw on their own experience of language, which is mostly oral (Rose & Martin, 2012). In our universities, the difficulties students face when confronted with these new challenges lead to high levels of desertion and failure, which should not only cause concern but also call those involved in university education to action. In fact, the beginning of the new century has seen a growing commitment with the development of literacy skills at university in our country (e.g. Arnoux et al., 2002; Adelstein & Kuguel, 2004; Carlino, 2005; Cubo de Severino, 2002; Moyano, 2010; Natale, 2012; Navarro, 2014; Resnik & Valente, 2009).

The problems that motivated this study were observed in students attending a local university where they access disciplinary knowledge in a foreign language. These students, who take courses in the teaching, translation and research-oriented English study programs at *Facultad de Lenguas, Universidad Nacional de Córdoba*, share the difficulties described above, with the additional complexity of having to do most of their academic work in a foreign language. Because this is the context of my pedagogical practice, I will address the complex issue of writing in a discipline in a foreign language, though I believe that the obstacles transcend the difficulties associated with the acquisition of the target language.

Disciplinary writing is a process of socially constructed meanings that are made in and through language. But at the same time, skillful writing in a discipline also presupposes cognitive processes and mechanisms through which knowledge is built, represented and manipulated to be written in contextually relevant ways. It is for this reason that this study aims at articulating a socio-semiotic understanding of disciplinary writing with a cognitive perspective on the issue. The ultimate objective is to account for both the functional and cognitive complexities involved in disciplinary writing in undergraduate education. These explorations are guided by the belief that ‘many of the most significant problems worthy of examination require more than one scholarly tradition to do them justice’ (Christie, 2007: 9).

Writing as meaning making

In this study, writing is understood as meaning-making. Writing research has explored the link between writing and meaning-making in different directions, driven by diverse educational interests and with different learning groups in mind, with basic distinctions drawn between ‘learning-to-write’ and ‘writing-to-learn’ (Byrnes, 2013). Research in L2 writing as meaning-making has been pursued mainly in the context of English for Specific Purposes (ESP), taking the notion of genre as the core construct¹. The ESP genre-based approach inspired by John Swales’ work (1990) interprets genre as social action, accounting for common rhetorical patterns of texts –genre moves and stages- and their relationship with the conventionalized practices of discourse communities. This line of research has had significant impact on the population of graduate students already engaged in disciplinary work and has made valuable contributions to the development of a ‘genre-based pedagogy which utilizes awareness-raising activities as a way to sensitize L2 writers to the relationships between a text’s form, rhetorical functions, and community of users’ (Tardy, 2011: 2). This sociologically oriented approach to genre particularly addresses whole-text oriented linguistic resources, without specifically focusing on the lexicogrammar as a meaning-making resource. This is so because the forms of lexicogrammatical resources as well as their functions at more local level ‘could be assumed to be already available, even if they should turn out to be fragile’ (Byrnes, 2013: 99). The absence of a language model on which to ground this notion of genre has been the target of some objections. Some scholars (e.g. Byrnes) highlight the relevance of teaching the functionality of lexicogrammatical resources in their textual environment to show how they create and communicate meanings, thus addressing the needs of students of different levels of proficiency. Others (e.g. Hood, 2011) present a more radical critique arguing that, as the criterion for the identification of texts as instances of genres is not based on a theory of language as meaning-making but on the commonsense interpretations of a discourse community, the approach seems to be rather intuitive.

¹ Two out of the three major traditions in genre-oriented research will be mentioned: the ESP tradition (Bhatia, 1993; Flowerdew, 1993; Swales, 1990) and the Australian Systemic Functional Linguistic tradition (Christie & Martin, 1997, 2007; Cope & Kalantzis, 1993; Martin & Rose: 2008; Rose & Martin: 2012). The North American rhetoric studies tradition (Bazerman, 1988; Freedman & Medway, 1994; Miller, 1994) will be overlooked as it is mainly concerned with L1 written compositions. For a thorough review of these three lines of research see Hyon, 1996.

In order to explore the ways in which meanings are made in writing, and considering that writing is about language, a linguistic theory is necessary to account for its functional dimensions providing an explicit language-based orientation toward genre. The theoretical and educational framework developed over more than three decades by the Australian genre-pedagogy that came to be known as the ‘Sydney School’, grounded on Michael Halliday’s model of language in context (1978, 1985a, 1985b), can inform such understanding of the genre construct. As Byrnes (2013: 101) points out, ‘the suitability of such an approach is initially signaled by its explicit textual focus, a *sine qua non* for writing research’ and ‘the carefully specified nature of the lexicogrammatical features needed for composing certain genres’². Though the original context in which this theoretical and educational research practice took place was that of English as the L1 (e.g. Christie, 1997; Christie & Derewianka, 2010; Martin & Rose, 2008; Martin & Rothery, 1993; Rose & Martin, 2012; Rothery, 1996), a language-based genre approach in writing has also been applied in the context of foreign language writing (Byrnes, 2009; Ryshina-Pankova & Byrnes, 2013; Schleppegrell & O’Halloran, 2011). SFL research has also explored key features of disciplinary ways of knowing in the sciences (e.g. Halliday & Martin, 1993; O’Halloran, 2007; Rose, 1997; Veel, 1997), in history (e.g. Coffin, 1997, 2006) and also in the social sciences (e.g. Wignell, 2007).

Writing in undergraduate education

Text production in undergraduate education has been researched from various perspectives and driven by diverse interests. There are multiple studies on the genres negotiated in higher education (e.g. Nesi & Gardner, 2011), on genre-based instruction (e.g. Bruce, 2013; Moyano, 2010; Natale, 2012; Navarro, 2014), on the expression of attitude and evaluation (e.g. Hood, 2004, 2011; Navarro, 2012), on L2 literacy development (e.g. Byrnes et al., 2010; Hyland, 2013; Leki, 2007; Ryshina-Pankova & Byrnes, 2013), among other areas of inquiry. One of the primary motivations for disciplinary writing in undergraduate education is knowledge demonstration, which generally occurs in the context of exams. Students take courses in which they acquire specialized knowledge and then are required to produce texts showing their ability to account for discipline specific conceptual constructs. These types of writings, in which the new members of the disciplinary cultures are evaluated, have been the object of research (e.g. Grigüello, 2005; Montemayor-Borsinger et al., 2012; Natale & Stagnaro, 2009, 2014). However, they do not seem to have been sufficiently explored, and will thus be analyzed in this study.

Writing about acquired disciplinary knowledge demands abilities to deploy the linguistic system in contextually relevant ways. This causes serious difficulties, some of which will be addressed in this work. The objects of analysis are texts produced by students of the course English Grammar II, which is taught in the third year of the English programs at *Facultad de Lenguas, UNC*. Their level of language proficiency is expected to be upper- intermediate, though it is rather uneven. The texts to be analyzed are about the linguistic phenomenon of *reference*.

² See Coffin and Donohue (2012) for a discussion on the relationship between SFL and academic literacy.

Disciplinary writing is eminently about field construction, and thus ideational meanings -those related to content- are a core issue. However, this study will be primarily concerned with the textual organization of those meanings. This decision has been grounded on the perception that some of the major difficulties students face in their writings are related to the structuring of the knowledge they are required to account for. Effective knowledge structuring is an essential aspect of textual coherence, since a text that lacks appropriate content organization will probably fail to achieve its goal independently of how accurate the construction of field may be. The analysis will thus focus on the structuring of disciplinary knowledge in students' written productions and on the contextual appropriateness of the organization of information in those texts. The study is informed by the theoretical and methodological tools of the so called 'Sydney School' (Martin & Rose, 2008; Rose & Martin, 2012), which draws on the general conceptual framework of Systemic Functional Linguistics (SFL) (Halliday, 1985a; Halliday & Matthiessen, 2014).

A functional analysis of the texts and of the semiotic complexities involved in their production is expected to shed light on the problems students face when they need to use language meaningfully in a given context. But at the same time, it cannot be overlooked that knowledge construction is also a cognitive achievement that involves mental processes underlying the social construction of those meanings. Therefore, after the first empirical stage -the analysis of students' texts- the study will explore whether the Systemic Functional model can fully account for both the functional and the cognitive complexities involved in the organization of information in written text production in a discipline.

On the basis of the considerations above, the following research questions and hypothesis are formulated:

- Do students structure disciplinary knowledge in contextually relevant ways in their written texts?
- Does the SFL model thoroughly explain the functional and cognitive complexities involved in the organization of disciplinary knowledge in students' written texts?

Hypothesis:

The organization of knowledge in students' written productions commonly fails to match the demands of the context, which undermines the effectiveness of their texts. The SFL model provides tools for the description of knowledge structuring in relation to contextual dimensions of text production and it also accounts for the functional and some of the cognitive complexities involved in knowledge construction and organization. However, this theoretical framework does not seem to fully explain how knowledge becomes available for the production of effective texts, i.e. texts that respond to the demands of new contexts. A theory centered on knowledge development might provide insights to bridge this gap.

The SFL perspective may thus be articulated with a cognitive theory that explains how knowledge representations become accessible and likely to be functionally deployed in new contexts. Such complementary view has not yet been pursued -as far as my literary review has revealed- probably because functional and cognitive approaches have often been conceived of as contradictory –even though Halliday (1978) himself talks about complementarities rather than contradictions. It is expected that the dialogue between these two theoretical perspectives will provide insights that might lead to a deeper understanding of disciplinary writing in undergraduate education and enrich pedagogical interventions.

Although it is hypothesized that the SFL may be articulated with contributions from the cognitive sciences, the study will not introduce conceptual considerations related to this complementary theoretical background until the text analysis has been reported.

In line with the considerations developed above, this research has the following objectives:

General objectives:

- To analyze the contextual appropriateness of the structural organization of knowledge in students' texts.
- To explore whether the SFL model fully accounts for the functional and cognitive complexities involved in the organization of information in written texts about acquired disciplinary knowledge.

Specific objectives:

- To describe contextual features of students' written texts in the field of linguistics.
- To analyze the restrictions imposed by task instructions on the structural configuration of students' texts.
- To identify the compositional structure of students' texts and determine whether it correlates with the demands of the task.
- To describe textual patterns of thematic selection and analyze their contribution to text structure and continuity.
- To analyze the SFL model's contributions to the explanation of the functional and cognitive complexities involved in information structuring in students' written texts.

This thesis is organized into four chapters. Chapter 1 outlines the theoretical framework developed by SFL, the model of language that informs the description and interpretation of the texts in Chapter 3 and whose explanatory power is the object of analysis in Chapter 4. Chapter 2 explores contextual aspects of written text production in undergraduate education –more specifically in the field of linguistics- to provide a framework of analysis for the texts produced by the students. These productions are analyzed in Chapter 3, with a focus on the organization of information and

its appropriateness for the context in which the texts are produced. Chapter 4 is devoted to an exploration of the functional and cognitive complexities of disciplinary written text production in undergraduate education. The SFL functional and cognitive insights are analyzed and articulated with contributions made by a theory of cognitive development in relation to the transformation and manipulation of knowledge necessary for particular contexts. These four chapters are followed by the final considerations, which summarize the contributions of the study, and the appendices with data that inform the text analysis reported in Chapter 3.

CHAPTER 1

A MODEL OF LANGUAGE IN CONTEXT



This study draws on the theoretical framework of Systemic Functional Linguistics (SFL), whose foundations were laid by M.A.K Halliday (1978, 1985a, 1985b) and which was further elaborated by Hasan (1985, 1995) and Matthiessen (1995, 2009). In particular, this work will rest on the concept of genre developed within a variety of the model proposed by James Martin (1992, 1994, 1995, 1997), which has evolved in Australia since the early 80s.

SFL proposes a comprehensive model of language in context that allows to understand the ways in which human beings use language for the realization of different meanings as they engage in social life. In Halliday's (1978) words, language is a 'social-semiotic', a resource for meaning centrally involved in the construction and negotiation of human experience. Language and context are two inseparable constructs: a social reality is itself an 'edifice of meanings'—a semiotic construct loaded with social values— and language is one of the semiotic systems that realizes¹ that social reality. Thus the only way of explaining the nature of the linguistic system is to look at it as part of a context in which it has developed to fulfill its basic functions of acting and reflecting. In other words, 'Language is as it is because of what it has to do' (p. 19), and this 'doing' always happens in a context that both determines and is determined by language, establishing a relationship of mutual predictability. What the language user does with language by selecting from the resources available in the system always happens in the form of text. Thus context and text may be understood as aspects of the same process (Halliday, 1985b: 5; Halliday & Martin, 1993: 26). The following figure illustrates the model of language in context and the relationship of mutual predictability that holds between both. The text, as an instance of the linguistic system, realizes an instance of the context.

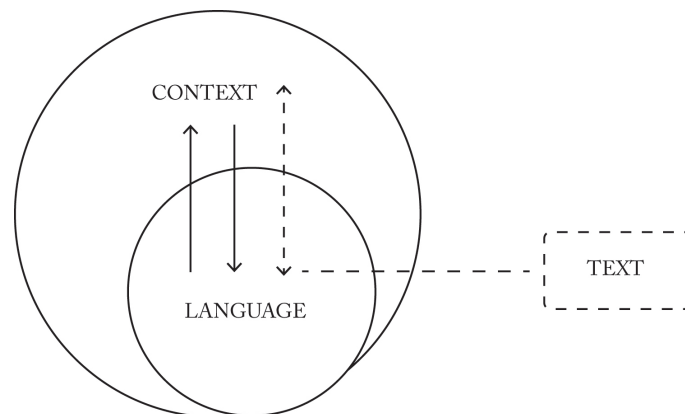


Figure 1.1 Language, context and text

¹ Eggins (2004: 65) states that 'realization refers to the way a meaning becomes encoded or expressed in a semiotic system'. It is a relationship that holds between the content and its expression. Martin and Rose (2007: 4-6) on the other hand refer to the phenomenon as a kind of 're-coding' and explain that the concept embodies the meanings of 'symbolizing', 'encoding', 'expressing', 'manifesting'.

As texts always unfold in a context, they are to be interpreted in the environment in which they occur: 'texts are social processes and need to be analyzed as manifestations of the culture they in large measure construct' (Martin, 1992: 494). Before talking about the text itself, I am going to refer to the notion of context, making my own Halliday's argument that 'the situation is prior to the discourse that relates to it' (1985b: 5).

1.1 Context: refining and redefining the concept of the environment of the text

The SFL approach to the study of language in context proposed by Halliday derives from the work of the anthropologist B. Malinowski, who argued that texts have to be understood in relation to the immediate context of situation and the more remote context of culture in which they are produced. Malinowski's ideas were later taken over by his British colleague J.R. Firth, who built them into his own linguistic theory, molding context as a more abstract level of language (Martin, 1992: 497; Halliday, 1985b: 5-8). Drawing on these two aspects of context, Halliday (1978) designed a model of language in which the context of a text is construed as a semiotic system (or systems) manifested through language (among other semiotic systems). In terms of Hjelmslev, context is to be seen as a connotative semiotic, that is, a semiotic system that is dependent on other semiotic systems for its realization, language being one of them. In other words, language functions as the expression plane of the more abstract systems of contextual meanings: context is interpreted as the content plane of language, and language as the expression plane of context.

According to Halliday (1978),

The semiotic structure of the situation is formed out of the three sociosemiotic variables of field, tenor and mode. These represent in systematic form the type of activity in which the text has significant function (field), the status and role relationships involved (tenor) and the symbolic mode and rhetorical channels that are adopted. (p. 122)

The field, tenor and mode together determine the text through the specification of what Halliday calls the 'register'. These register variables, which model the immediate context of situation, are reflected in the choices made within the linguistic system which, as stated above, are instantiated in texts. This is outlined in figure 1.2 below.

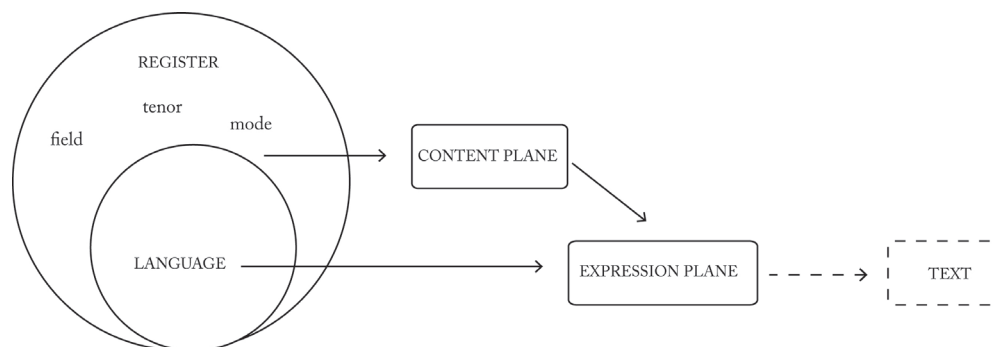


Figure 1.2 Context as the content plane of language

Drawing on Bakhtin's work on speech genres (1986)², Martin (1992) proposes a stratified interpretation of context³ in which there is a plane above the immediate context of situation: the context of culture (also Eggins & Martin, 1997). This is a plane of higher abstraction and can be interpreted as a system of social processes or genres, with register functioning as its expression form and language functioning as the expression form of register. The following figure illustrates the stratification of context into two planes. The recontextualization of register within a broader context of social processes implies that genres are realized through configurations of register variables, which in turn are realized through linguistic choices:

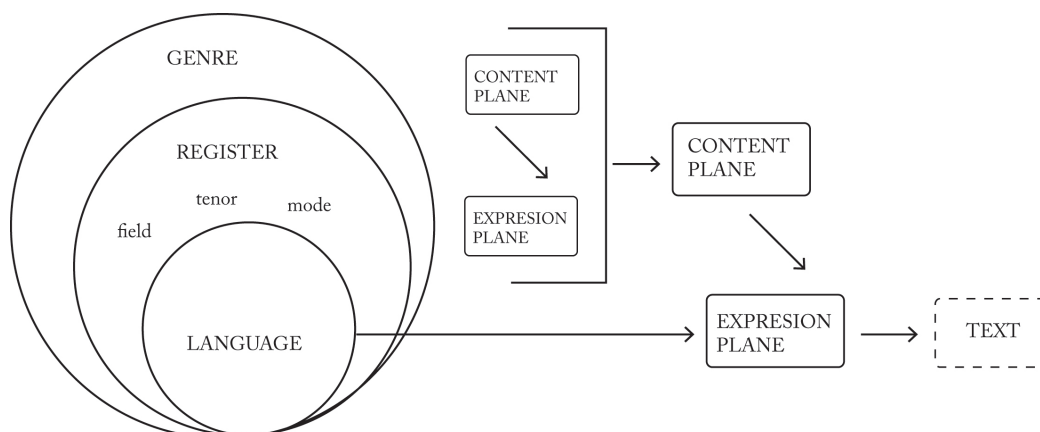


Figure 1.3 A stratified model of context as language's content plane.

² Bakhtin argues that human activity involves the use of language, and that the forms of this use are as diverse as are the areas of human activity. The language philosopher's perspective is condensed in the following words: 'Language is realized in the form of individual concrete utterances (oral and written) by participants in the various areas of human activity. The utterances reflect the specific conditions and goals of each such area not only through their content (thematic) and linguistic style, that is the selection of the lexical, phraseological, and grammatical resources of the language, but above all through their compositional structure.... Each separate utterance is individual, of course, but each sphere in which language is used develops its own relatively stable types of these utterances. These we may call speech genres'. (p. 60)

³ Although the context of culture is accounted for as a higher order semiotic in Halliday's model of language (1978), it is not actually modeled as a stratum above the context of situation.

According to this remodeling of language in social context, genre and register can vary independently; that is, a genre can function as a pattern of field, tenor and mode patterns.

In the following section the semiotic interpretation of context as a stratified system will be developed, starting from the highest level of abstraction – genre – and then metaphorically moving ‘downwards’ in the realization process to the conceptualization of the register variables of field, tenor and mode.

1.1.1 Context of culture: genre as social process

Genre is a semiotic category of the context of culture. Martin defines it as ‘a staged, goal-oriented purposeful activity in which speakers engage as members of our culture’ (1984: 25). This social activity is realized through register: ‘a genre is a particular configuration of register variables of field, tenor and mode’ that enacts the social practices of a given culture (Martin & Rose, 2007, 2008)⁴. This conceptualization, which implies that a genre is not conceived of as a linguistic unit but as a social process, is grounded in two fundamental aspects: its purpose, or social function, and the steps that are followed in order to achieve that purpose.

The objectives that govern a genre generate text structure (Martin, 1992: 505). That is, the text as the linguistic dimension of the goal-oriented social process displays a compositional structure⁵ or ‘schematic structure’⁶ that hierarchically and sequentially organizes the social purpose of the genre. In general, the achievement of this purposeful activity implies more than one step and so the schematic structure is generally made up of stages (more than one) through which more specific goals are achieved. Each stage in the genre contributes a part of the overall meanings that must be made for the genre to be accomplished successfully (Eggins, 2004: 59). In turn, stages, which are highly predictable segments in each genre, consist of one or more phases that vary in relation to field, and each phase consists of one or more messages, defined from the perspective of grammar as non-dependent non-projected clauses, together with their associated dependent and projected clauses⁷ (Rose, 2006).

⁴ Within SFL the overall purpose of a communicative situation has been alternatively included in different semiotic categories of the context. Halliday (e.g. 1978) treated genre as an aspect of mode, more specifically the ‘rhetorical mode’ (what is being achieved by the text in terms of such categories as persuasive, expository, didactic and the like). Hasan (e.g. 1985) appeared to model genre as an aspect of field as she derived elements of text structure from that contextual variable. See Moris and Navarro (2011) for a critical review on the concepts of register and genre within SFL.

⁵ Bakhtin’s label for text structure.

⁶ Labelled ‘macro structure’ in Halliday and Hasan (1976) and ‘generic structure’ in Callaghan et al. (1993), Coffin (1997), Martin (1997), Rothery and Stenglin (1997), Veel (1997).

⁷ For a thorough grammatical description of syntactic and logico-semantic relations between clauses in clause complexes see chapter 7 in Halliday and Matthiessen (2014: 428-556).

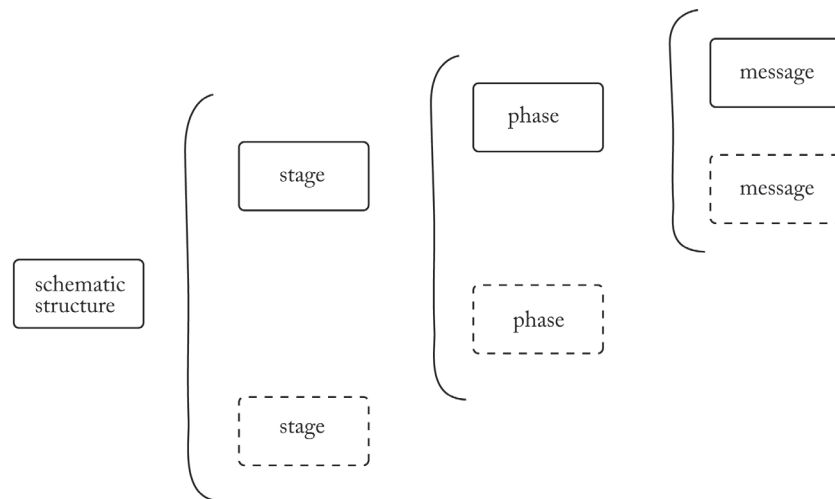


Figure 1.4 Generic layers of structure

Genres have predictable compositional structures, which are realized by relatively stable linguistic forms that respond to the more or less standardized character of social activities. For example, a report in a textbook on linguistics addressed to undergraduate students in which the linguistic phenomenon of ‘reference’ is classified is likely to display a classification system stage followed by a ‘Types’ stage consisting of phases that describe each one of the classes announced through individual messages. In spite of this predictability, which is related to the conventionalized forms in which human beings tend to carry out their social practices, it is important to point out that innovation is also a constitutive aspect of human life and therefore expected to be manifested in genre structure from instance to instance and also over time (Macken & Slade, 1993; Martin, 1993; Veel, 1997).

The schematic structure of the text, which is generated at the level of genre, is in turn realized through more specific choices within register. Each genre can be produced in a variety of situations, so the overall goal of a text is realized through selections within a more immediate context plane organized into field, tenor and mode. A particular combination of these variables is referred to as the register.

1.1.2 Context of situation: register and register variables

Martin (1992: 502) defines register⁸ as ‘a metafunctionally organized connotative semiotic’ between genre and language. This metafunctional diversity is reflected in the organization of any communicative situation with respect to field, tenor and mode, which are semiotically relevant

⁸ Halliday (1985b) holds a rather different view on register. The author characterizes it as the actualization of the context of situation, which he conceives of as ‘potential’. A register is a semantic concept that can be defined as ‘a configuration of meanings that are typically associated with a particular situational configuration of field, tenor and mode’ (p. 38-39). The register, as a configuration of meanings, should include the lexicogrammatical realization of those meanings. On the other hand, Halliday and Matthiessen (2014: 29) define register as ‘a functional variety of language, the patterns of instantiation of the overall system associated with a given type of context (a situation type)’, and interpret as registers texts such as recipes, e-mail messages, media interviews, advertisements and other types that the Sydney School would consider genres.

aspects⁹ that have an impact on language use. In other words, the context of situation of any text can be described in terms of field –what is going on: the nature of the social-semiotic activity-, tenor –those who are taking part, their statuses and roles-, and mode –the part language is playing in the interaction (Halliday, 1985b: 12). Each one of these three parameters of context will be analyzed in turn in the following sections following the descriptions outlined in Martin (1992, 1997, 2007).

Field

Field is defined as a set of activity sequences¹⁰ oriented to some global institutional purpose; these sequences include the taxonomies of participants involved. As Halliday and Matthiessen (1999: 321) explain, there are two aspects to the category of field: the social activity being pursued and the subject matter the activity is concerned with. So for instance, in a context where a teacher develops a lesson on the linguistic phenomenon of reference there is (i) the social activity: lecturing as an institutionalized form of knowledge transmission and (ii) the area of information: language. Fields always vary in both these respects.

The systems of activity sequences, which include descriptions of the participants, processes and circumstances involved, are closely related to the institutional settings in which they occur and may be as diverse as linguistics, philosophy, religion, sports or cooking. That is, each domain possesses its own specific sets of ‘goings-on’ with their inherent taxonomized participants that are related to what those ‘goings-on’ are about.

Interestingly, Martin illustrates this register variable with some of the activity sequences involved in the field of linguistics, within which grammar can be located. The author mentions among some of them lecturing, evaluation, supervising, writing, editing, meetings, seminars, conferences, research activities, referee’s reports, community work, and locates them within a system network¹¹, presented in figure 1.5 below. This schematic representation of activity sequences within linguistics illustrates how activity sequences are related within a field and also how certain activities can be shared across fields – for example, publication or evaluation, an aspect involved in this study.

⁹ Hasan (1985) proposes the notion of ‘generic structure potential’ (GSP) as the dimension of text structure that organizes the meaning potential specified in the register. The linguist refers to the values that field, tenor and mode variables are assigned in a specific communicative situation as contextual configuration (CC).

¹⁰ Martin (1992: 537) acknowledges that the notion of activity sequence is closely related to various concepts developed in cognitive psychology such as frames, scripts, scenarios and schemata.

¹¹ Martin makes reference to the insufficient delicacy of the system network he proposes for the field of linguistics.

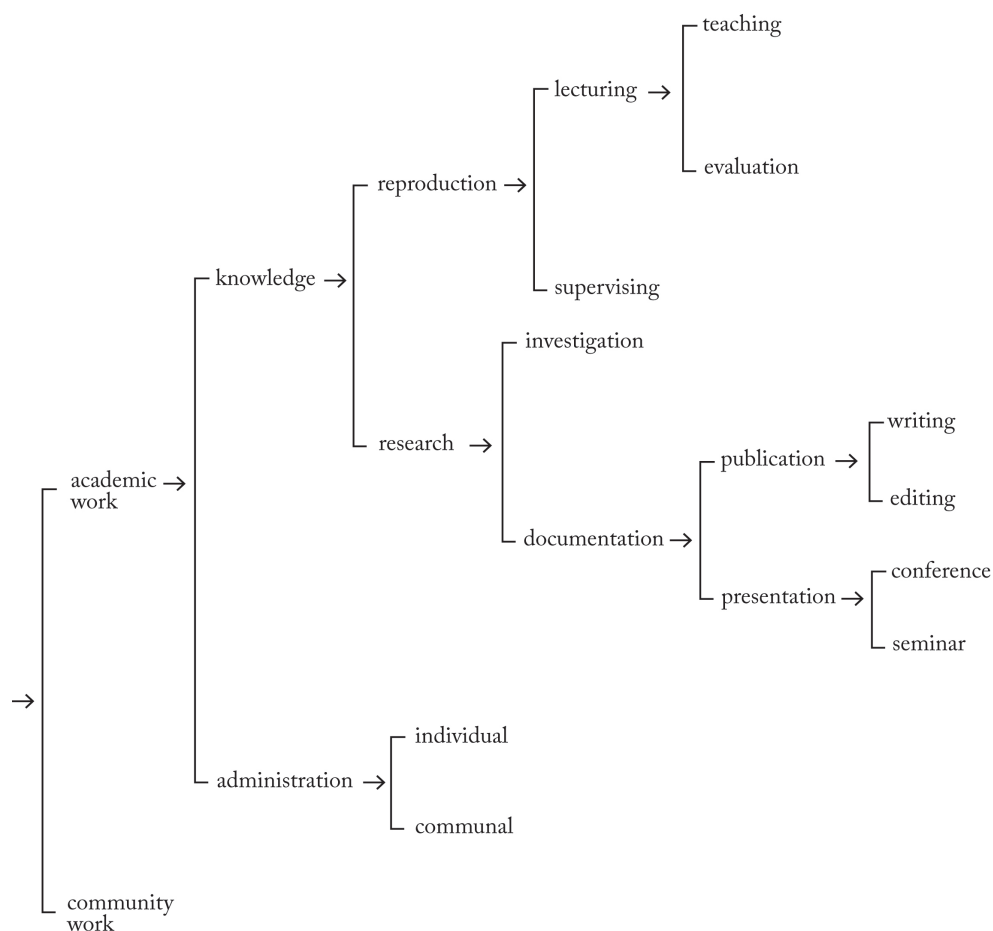


Figure 1.5 Provisional classification of activity sequences for the field of linguistics (excerpted from Martin, 1992: 539).

Martin proposes a classification of fields taking two dimensions into account: the degree of specialization they involve and the organization of institutionalized learning of fields across cultures. Taking both dimensions into account, the author suggests a distinction between orally transmitted fields and fields dependent on writing. The fields sustained through oral transmission such as domestic or recreational ones are closer to common sense constructions of experience, whereas the fields dependent on writing such as the humanities or the sciences are more technical in nature and require institutionalized learning for an understanding of their *uncommonsense* classifications of the world built through deep, complex taxonomies (Halliday & Martin, 1993). The field of discourse has also been explored in relation to the nature of knowledge drawing on the work of the sociologist Basil Bernstein. In his theory of knowledge structure, the author proposes the existence of *horizontal* and *vertical* discourses. Horizontal discourse creates commonsense knowledge, whereas vertical discourse is hierarchically organized or consists of specialized language, thus creating *uncommonsense* knowledge (Christie & Martin, 2007).

Tenor

Tenor is concerned with social roles and relations and how they are negotiated among participants in an interaction. These relationships can be seen as a complex of the dimensions of power¹² and solidarity¹³ (Martin, 1997: 12). The ‘vertical’ status dimension, concerned with social hierarchy, is to be seen as a continuum in which the equality or inequality between the participants conditions their access to semiotic resources. That is, whereas interlocutors of equal status are likely to have access to the same kinds of meanings, interlocutors of unequal status will probably take up semantic choices of different kinds. On the other hand, the ‘horizontal’ contact dimension, concerned with the degree of involvement among interlocutors, is to be regarded as a continuum in which the role of the participants is assessed in terms of how frequent or occasional their contact is, which will also condition their linguistic choices.

Mode

Mode refers to the role language is playing in the realization of social action. Social reality is construed through language, which always occurs in the form of text, and thus mode is related to what the participants expect language to do for them in a particular situation: the symbolic organization of the text, the status it has, and its function in the context in which it operates (Halliday, 1985b). Mode is concerned with symbolic reality and since it has the function of constructing social reality, it mediates the relation between language and the other two dimensions of the situation in terms of semiotic distance. From the perspective of field, semiotic distance is related to the role played by language in the activity, which determines degrees of contextual dependency. More specifically a basic distinction is made between language as part of what is going on, like a live commentary on what participants are doing, or constitutive of the activity, such as a text explaining a linguistic phenomenon. In this sense, ‘mode mediates contextual dependency – the extent to which a text constructs or accompanies its field’ (Martin, 1992: 509). On the other hand, from the perspective of tenor, semiotic distance is related to ‘the kinds of interaction various channels enable or disable – from the two-way aural and visual feedback of face-to-face conversation through telephone, radio and television to the no immediate feedback context of reading and writing’ (Martin, 1997: 12). As such, it mediates the semiotic space between dialogue and monologue.

This last dimension is of particular relevance in this study as writing constitutes a mode of meaning different from speech. Whereas in spoken interaction it is possible to reformulate, disambiguate and clarify concepts in relation to the demands of the addressee with relative immediacy, this is not possible given the role of language in the written mode. Besides, the written texts under analysis are constitutive of field; that is, language is the only semiotic system students have at their disposal to convey the desired meanings. Because of these reasons, the linguistic mechanisms

¹² A label adopted from Poynton (1985/1989).

¹³ These two dimensions are labeled as ‘status’ and ‘contact’ in Martin (1992: 523). The author also considers a third dimension: ‘affect’, which is not included in this study, as in Martin’s (1997) simplified version.

related to the hierarchical organization of information and to textual continuity are essential for the production of coherent and cohesive written texts.

The functional diversification of context in terms of field, tenor and mode has an impact on language. In language, the functional diversification is modeled through ‘metafunctions’ or abstract functions of language: ideational, interpersonal and textual, which correlate¹⁴ with field, tenor and mode respectively. These correspondences between context and language are based on the functional organization of both orders of meaning.

1.2 Language

1.2.1 Metafunctional diversification

Language has evolved to mean in context, which amounts to saying that its fundamental property is function. The structure of language has been shaped to fulfill the three basic social functions of enacting speakers’ relationships, construing their experience of social activity, and weaving these enactments and construals together as meaningful discourse (Halliday, 1978). The three semiotically relevant aspects of context mentioned in the previous section correlate with the metafunctions of language: field is expressed through the ideational metafunction, tenor through the interpersonal metafunction, and mode through the textual metafunction.

The ideational metafunction refers to language as used for construing our experience and the relationship between aspects of experience, the interpersonal metafunction relates to the use of language for interaction with others, and the textual metafunction relates to the use of language for the forming of coherent and cohesive texts. This last metafunction has an enabling function, as it is concerned with organizing ideational and interpersonal meanings as discourse allowing them to be actualized. Because of its relevance in relation to information flow, which is a vital aspect in the production of effective written texts, it will be one of the aspects under analysis in this study. The following figure shows the functional diversification of language in relation to the functional diversification of social context:

¹⁴Halliday and Matthiessen (2014: 34) used the term ‘resonate’ instead to imply the two-way realizational relationship between context and language; contextual variables influence linguistic choices but are also influenced by them.

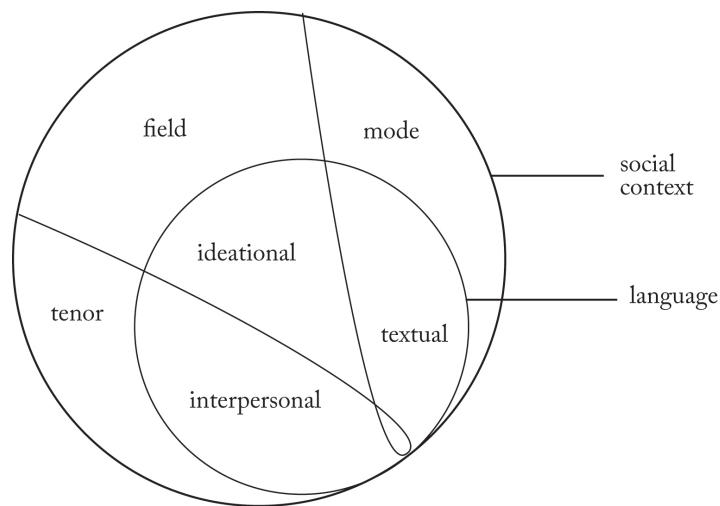


Figure 1.6 Functional diversification of language and social context

Each metafunction makes a distinctive contribution to the grammar of the clause: ideational meanings are realized through the system of Transitivity, interpersonal meanings are realized through the system of Mood, and textual meanings are realized through the system of Theme.

These meanings will be further described at the level of the clause, since grammar is the ‘central processing unit of language, the powerhouse where meanings are created’ (Halliday & Matthiessen, 2014: 22). But before this, two other important aspects of the internal organization of language need to be explored: its systemic organization and its stratification.

1.2.2 System as choice

Another aspect of the nature of language is its organization as a system, or rather, as a system of systems. Systems are sets of alternative meanings that form semiotic paradigms. Each term in a system excludes and presupposes the others so that the meaning of each sign in the system comes largely from what it is not in relation to the other signs it is opposed to (Halliday, 1993: 96). Being a system, language is represented as a resource in terms of available choices, the relationships between them and the contextual conditions that affect their access (Halliday, 1978: 192). Choices within systems generate structures which are the actualization of a potential and which acquire meaning against the background of other choices that might have been made but were not. Therefore, using language means making choices in the environment of other choices to which they are paradigmatically related and in relation to which they become meaningful (Halliday, 1978: 52).

1.2.3 Stratification

Another aspect of the internal organization of language is the separation of content and expression planes. Following Hjelmslev, Halliday views language as a stratified system, with an ‘expression plane’ (a more ‘concrete’ phonological/graphological stratum) realizing the ‘content plane’ (a more abstract stratum).

The ‘content’, which is concerned with the construal of meaning, is further stratified as lexicogrammar and discourse semantics, the former realizing the latter and so expanding the meaning potential of language more or less indefinitely. Lexicogrammar involves resources for integrating ideational, interpersonal and textual meaning into clauses and their constituents (Halliday & Matthiessen, 2014). On the other hand, discourse semantics involves resources for integrating clauses with one another as cohesive text (Halliday & Hasan, 1976; Martin, 1992; Martin & Rose, 2007¹⁵). So ‘a text consists of patterns of patterns of patterns. Patterns of meaning in discourse are realized as patterns of meaning in grammar, which are realized as patterns of phonology or graphology’ (Rose & Martin, 2012: 21). The following figure illustrates the stratification of the content plane in language in relation to the stratified model of context:

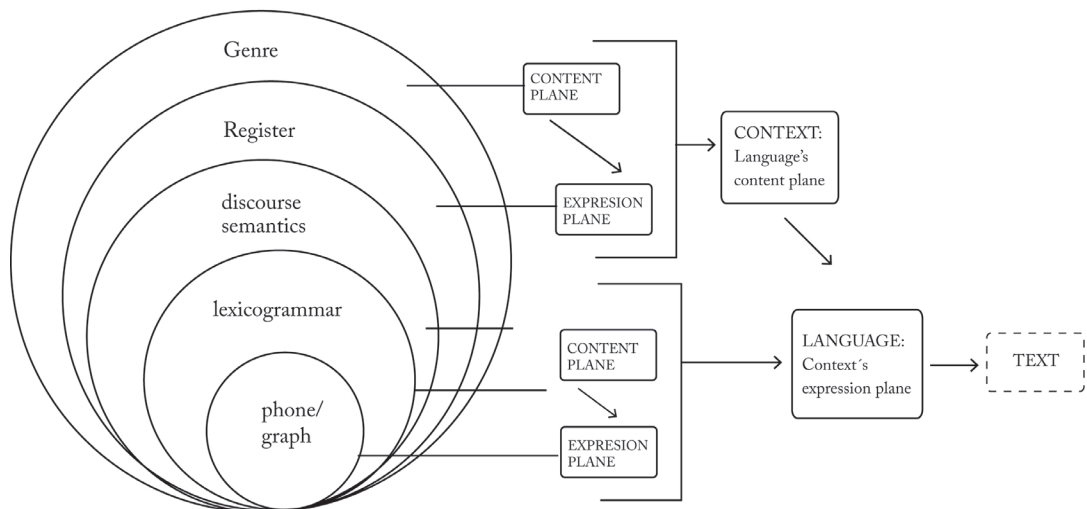


Figure 1.7 Language’s stratified content form in relation to a stratified model of social context¹⁶

¹⁵ Earlier work on cohesion (Halliday & Hasan, 1976) was later developed as a stratum of discourse- semantics mediating between grammar and context (Martin, 1992; Martin & Rose, 2007). This stratum, which is concerned with patterns of meaning that unfold across whole texts, is modeled into six systems: identification, periodicity, ideation, conjunction, appraisal and negotiation.

¹⁶ Martin (1997: 6) explains that ‘the relation of genre to register as complementary perspectives on the social ‘content’ of language (i.e. context) is comparable in some respects to the relation of discourse semantics to lexicogrammar as complementary perspectives on language’s own content plane. Genre and register constitute a stratified perspective on what Hjelmslev referred to as connotative semiotics – semiotic systems that make use of another semiotic system as their expression plane (as opposed to denotative semiotics that has an expression plane of their own)’. This is the case of language, in which the expression and the content plane are part of the same semiotic system.

1.2.4 The lexicogrammar: three strands of meaning in the clause

The central processing unit in the lexicogrammar is the clause, as its structure integrates the three kinds of meanings mentioned above: ideational, interpersonal and textual. Within this model of language the clause is always considered a text clause, as language is always used in the form of text and not as isolated clauses.

The clauses that realize a text are multifunctional. Each one of the functional components or metafunctions of language simultaneously adds a strand of meaning to the structure of the clause through choices within different systemic networks: ideational meanings are created through the system of ‘Transitivity’, interpersonal meanings through the system of ‘Mood’ and textual meanings through the system of ‘Theme’ (Halliday, 1978: 113).

The system of Transitivity provides the lexicogrammatical resources to express content. In this sense, the clause is organized as a configuration of processes, participants, and attendant circumstances so that its structure is modeled as a figure that ‘chunks’ the incessant flow of events which make up experience (Halliday & Matthiessen, 2014: 213). The processes, which are the core of a figure, are semantically classified as material, mental, relational, verbal, behavioral and existential on the basis of the domain of experience they construe. In turn, each one of them has inherent participants whose roles are determined by the nature of the process itself, for example, Token/Value or Carrier/Attribute are the participants in identifying and attributive relational clauses respectively, Senser/Phenomenon in mental clauses, Actor/Goal in material clauses. The choices within this system reveal how the same fragment of reality may be differently semanticized, like in the following cases in which an aspect of experience is construed as something done (1), as the existence of an entity (2), and as a relationship of being between two separate entities (3).

(1)

The student has used many instances of endophoric reference in this text.

Ppant: Actor	Pr: material	Ppant: Goal	Circ: Location
--------------	--------------	-------------	----------------

(2)

There are many instances of endophoric reference in this text.

Pr: existential	Ppant: Existent	Circ: Location
-----------------	-----------------	----------------

(3)

The use of many instances of endophoric reference is visible in this text.

Ppant: Carrier	Pr: Relational	Ppant: Attribute	Circ: Location
----------------	----------------	------------------	----------------

The Mood structure of the clause serves to express social relations between the participants in the communicative situation. The functional components of this structural aspect are the Mood element, which typically includes the Subject and the Finite, and the Residue, whose components are the Predicator, Complements and Adjuncts (except for modal ones). This structural configuration organizes the clause as an interactive event in which the language user adopts a particular speech role for himself and by doing so assigns a role to his interlocutor. The basic speech roles are ‘giving’ and ‘demanding’ and what may be given or demanded is conceptualized within this framework as a ‘commodity’: ‘information’- whose nature is typically verbal as it is constituted in language- or ‘goods and services’- whose nature is typically non-verbal as they can be exchanged without accompanying language (Halliday & Matthiessen, 2014: 134-5). The role taken up by an interactant in the exchange and the nature of the commodity being exchanged combine to define the basic speech functional categories of statement, question, offer and command. Statements and questions, called propositions, involve exchanges of information whereas commands and offers, called proposals, involve exchanges of goods and services. These semantic categories are realized by grammatical Mood options: statements are typically realized by the declarative Mood, questions by the interrogative Mood and commands by the imperative Mood¹⁷ (Martin et al., 1997). In these realizations the ‘natural’ relationship between discourse semantics and lexicogrammar (the two strata of the content plane – see section 1.2.3 above) is kept and they are thus called ‘congruent’ realizations. The following are two examples in which the commodity exchanged is ‘information’. In the first case the statement (given information) is congruently realized by the declarative Mood and in the second one the question (demanded information) is congruently realized by the interrogative Mood.

(1)

The student has used many instances of endophoric reference in this text.

Subject	Finite	Predicator	Complement	Circ. Adjunct
Mood		Residue		

(2)

Has the student used many instances of endophoric reference in this text?

Finite	Subject	Predicator	Complement	Circ. Adjunct
Mood		Residue		

¹⁷There is no typical Mood choice associated with the realization of offers.

There are cases, however, in which this unmarked correlation between meanings and wordings is not kept, giving rise to interstratal tensions between semantics and grammar¹⁸. In the domain of interpersonal meanings, this happens when one Mood acts as another opening up the possibility of indirect speech acts, for example when the interrogative Mood is used to issue a command. This process, whereby meaning is realized by a grammatical form which is not typically expected, is called ‘grammatical metaphor’¹⁹. For example, the clause *‘I wonder whether the student has used many instances of endophoric reference in the text’* metaphorically realizes the question presented in (2) above, as it selects declarative Mood to ask for information.

The third structural configuration of the clause involves Theme and Rheme, which constitute its structure as a message in relation to the total process of communication. The function of the Theme is to express the ‘operational relevance’ of the clause in the textual context in which it is produced. In other words, it is a functional component that is directly involved in the creation of text (Halliday, 1978: 45-46) as it organizes information so that the clause fits in and contributes to the flow of discourse (Halliday & Matthiessen, 2014: 88). The examples below show three different structural organizations of identical experiential and interpersonal meanings, which provide alternative announcements, as signaled by thematic choices in each case:

(1)

The student has used many instances of endophoric reference in this text.

Theme	Rheme
-------	-------

(2)

In this text the student has used many instances of endophoric reference.

Theme	Rheme
-------	-------

(3)

Many instances of endophoric reference have been used in this text.

Theme	Rheme
-------	-------

The choices made within each one of these systems (i.e. Transitivity, Mood and Theme) generate three types of structural configurations in the clause: the clause as representation, the clause as exchange, and the clause as message. The following example illustrates these three simultaneous layers of meaning in the clause:

¹⁸ Martin (2007: 49-55) refers to the interstratal tension created by grammatical metaphor as opposed to stratal harmony and considers it a critical linguistic resource that has evolved in written cultures for the construction of vertical discourse.

¹⁹ See chapter 10 in Halliday and Matthiessen (2014).

		<i>The student</i>	<i>has used</i>	<i>many instances of endophoric reference</i>	<i>in this text.</i>
Clause as represent.	Transitivity system	Ppant: Actor	Pr: Material	Ppant: Goal	Circ: Loc.
Clause as exchange	Mood system	Subject	Fin.	Pred.	Complement
		Mood		Residue	
Clause as message	System of Theme	Theme	Rheme		

Table 1.1 Simultaneous layers of meaning in the clause

Whereas experiential meanings allow language users to represent reality (to talk about something), and interpersonal meanings allow interaction (to address someone), textual meanings have an enabling or facilitating function. That is, ‘construing experience and enacting interpersonal relations depend on being able to build up sequences of discourse, organizing the discursive flow, creating cohesion and continuity as the text moves along’ (Halliday & Matthiessen, 2014: 30-31). The grammatical realization of the textual metafunction will be of special concern in this study as the focus is on the organization of knowledge in texts. Texts are realized by clauses whose textual function is to contribute to connectedness and continuity through the organization of information at a local level. Thus, the thematic configuration of clauses will be one of the linguistic aspects to be explored. This system will be further developed in the next chapter.

1.3 From lexicogrammar to text in context

Grammar is the powerhouse of language and as such it ‘makes meaning into text’ or, turning it around, texts are made up of grammar (Martin, 1993: 124). In other words, texts are realized through lexicogrammatical structures that result from many simultaneous choices in meaning. These lexicogrammatical choices of ideational, interpersonal and textual meanings realize the context resonating with the field, tenor and mode of the situation. At the same time, these linguistic choices create patterns of meanings that hierarchically and sequentially organize the social purpose a text.

A text is then conceptualized as the linguistic form of social interaction, an instance of the linguistic system that is functional in a context, a product of choices in meaning (Halliday, 1985b). These choices result in ‘a polyphonic composition in which different semantic melodies are interwoven’ (Halliday, 1978: 112).

The relationship between text, lexicogrammar and contextual features is illustrated in the figure below.

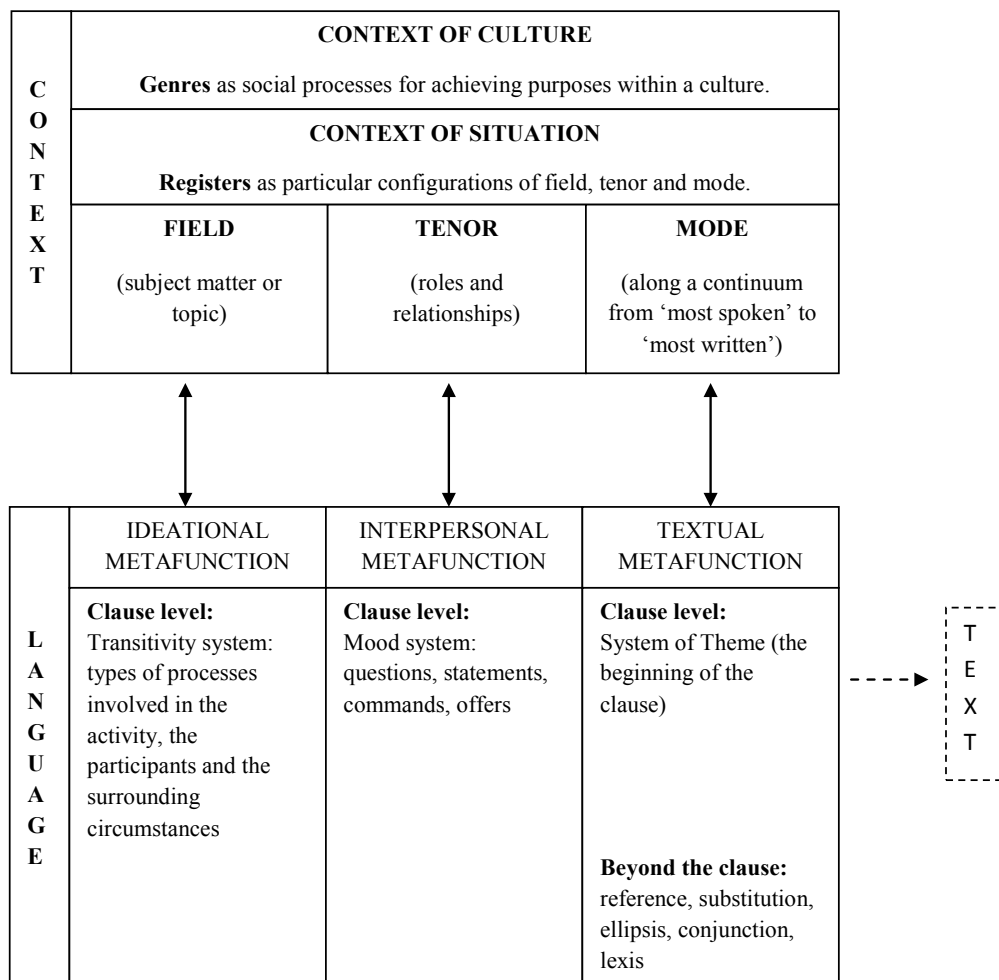


Figure 1.8 The text in a functional model of language²⁰ (Adapted from Christie & Derewianka, 2010: 7)

The linguistic choices from which a text emerges realize configurations of register variables which in turn realize more abstract social processes. Alternatively, the figure can also be read top down departing from the abstract construct of genre, realized through field, tenor and mode configurations, realized in turn through lexicogrammatical selections. These choices within the stratum of lexicogrammar generate syntactic structures which are integrated with one another as cohesive text through other linguistic resources such as reference, substitution, ellipsis, conjunction and lexis (Halliday & Hasan, 1976).

1.4 Towards a systematic classification of genres and texts

As already mentioned, a text is the linguistic dimension of a social process: the global social purpose of an activity shapes the text that instantiates it. In other words, semiotically relevant

²⁰The text forming resources mentioned in the figure are taken from Halliday and Hasan (1976). However, textual resources for integrating clauses could also be seen from a discourse semantics perspective (Martin, 1992; Martin & Rose, 2007).

contextual aspects correlate with textual organization. On the basis of this relationship, Martin (1992: 505) suggests that the similarities and differences between text structures, which define text types, can serve to formulate genre networks.

A group of scholars belonging to what came to be known as the 'Sydney School' has elaborated a systematized network of discourse genres as a result of ongoing research that started back in the early 1980s. These explorations, which were fundamentally driven by pedagogical concerns, have been led by James Martin and have received innumerable and valuable contributions from different educational areas. Key research in school contexts, where the first explorations began, has been carried out by Joan Rothery, Frances Christie, Bill Cope, Mary Kalantzis, Mary Macken-Horarik, Maree Stenglin, Beverly Derewianka, Robel Veel, Claire Acevedo and Mary Schleppegrell, among others. The research was further extended to the field of academic literacy -e.g. Carolyn Webb, Janet Jones and Helen Drury- and to TESOL -e.g. Susan Hood and Helen Joyce²¹. The central aim of this extensive work in language and education has been to democratize access to this domain of social activity. In order to do so, a genre-based pedagogy has been designed to provide explicit knowledge about the language of the prototypical texts through which meanings are negotiated in educational settings.

Martin and Rose (2008) document these explorations, proposing a systemic organization of genres that accounts for their relatedness. Genres are grouped into families that share a general objective: stories (to interpret life and to evaluate others' behaviour), histories²² (to reconstruct real or imagined events and assess them), reports (to describe or classify phenomena), explanations (to explain why or how phenomena happen) and procedures (to direct specific activities). Each family in turn comprises a group of particular genres that can be defined on the basis of more specific communicative purposes. For example, within reports Martin and Rose distinguish descriptive reports (those that define an entity or phenomenon and describe its features), classifying reports (those that subclassify an entity or phenomenon in relation to a given set of criteria), compositional reports (those that describe components of an entity) (p.135). These different social purposes generate specific text structures that realize the goals in steps or stages, which are more stable elements in the compositional structure of texts. These stages, in turn, unfold in phases, which are more variable and field-sensitive. For example, the broad social purpose of an explanation is to refer to why or how processes happen, and this is reflected in the text structure, which follows two main stages: Phenomenon and Explanation. Each one of these stages has a specialized function that contributes to the social purpose of the genre as a whole.

The following table provides an adapted version of the system of school genres outlined in Rose and Martin (2012). The first choice in the genre map is between texts whose central purpose is to engage, inform or evaluate. Within engaging genres the authors present the family of stories; informing genres include histories, reports, explanations and procedures; and evaluating genres

²¹ See Rose and Martin (2012) for a detailed account of the three phases in the development of the Sydney School genre-based literacy programmes.

²² Expositions and discussions, which belong to the family of arguments, are topologically related to histories in this work.

comprise text responses and arguments. Each one of these families includes in turn different types of genres with more specific communicative goals. The highlighted genres in the table below are the ones under analysis in this study.

Central purpose	Genre family	Types of genres	Purpose of genre types
engaging	Stories	recount narrative exemplum anecdote	recounting events resolving a complication in a story judging character or behavior in a story sharing an emotional reaction in a story
informing	Histories/ Chronicles	autobiographical recount biographical recount historical recount historical account	recounting life events recounting life stages recounting historical events explaining historical events
	Reports	descriptive report classifying report compositional report	classifying and describing a phenomenon classifying and describing types of phenomena describing parts of wholes
	Explanations	sequential explanation conditional explanation factorial explanation consequential explanation	explaining a sequence alternative causes and effects explaining multiple causes explaining multiple effects
	Procedures	procedure procedural recount	how to do experiments and observations recounting experiments and observations
evaluating	Arguments	exposition discussion	arguing for a point of view discussing two or more points of view
	Text responses	review interpretation critical response	evaluating a literary, visual or musical text interpreting the message of a text challenging the message of a text

Table 1.2 Map of school genres (Adapted from Rose & Martin, 2012: 130).

As highlighted in the map, this study will focus on three genre families: reports, explanations and procedures, as they are the ones typically involved in knowledge acquisition and demonstration. In this study, the types of procedures under scrutiny will be those through which teachers require

students to demonstrate disciplinary knowledge, instead of those that give instructions on how to carry out experiments or report on them mentioned in the table above. The overall goal in these three genres, which are called 'factual', is to inform. Figure 1.9 sets out a taxonomy of factual genres and their structural realization through stages that hierarchically and sequentially organize their goals.

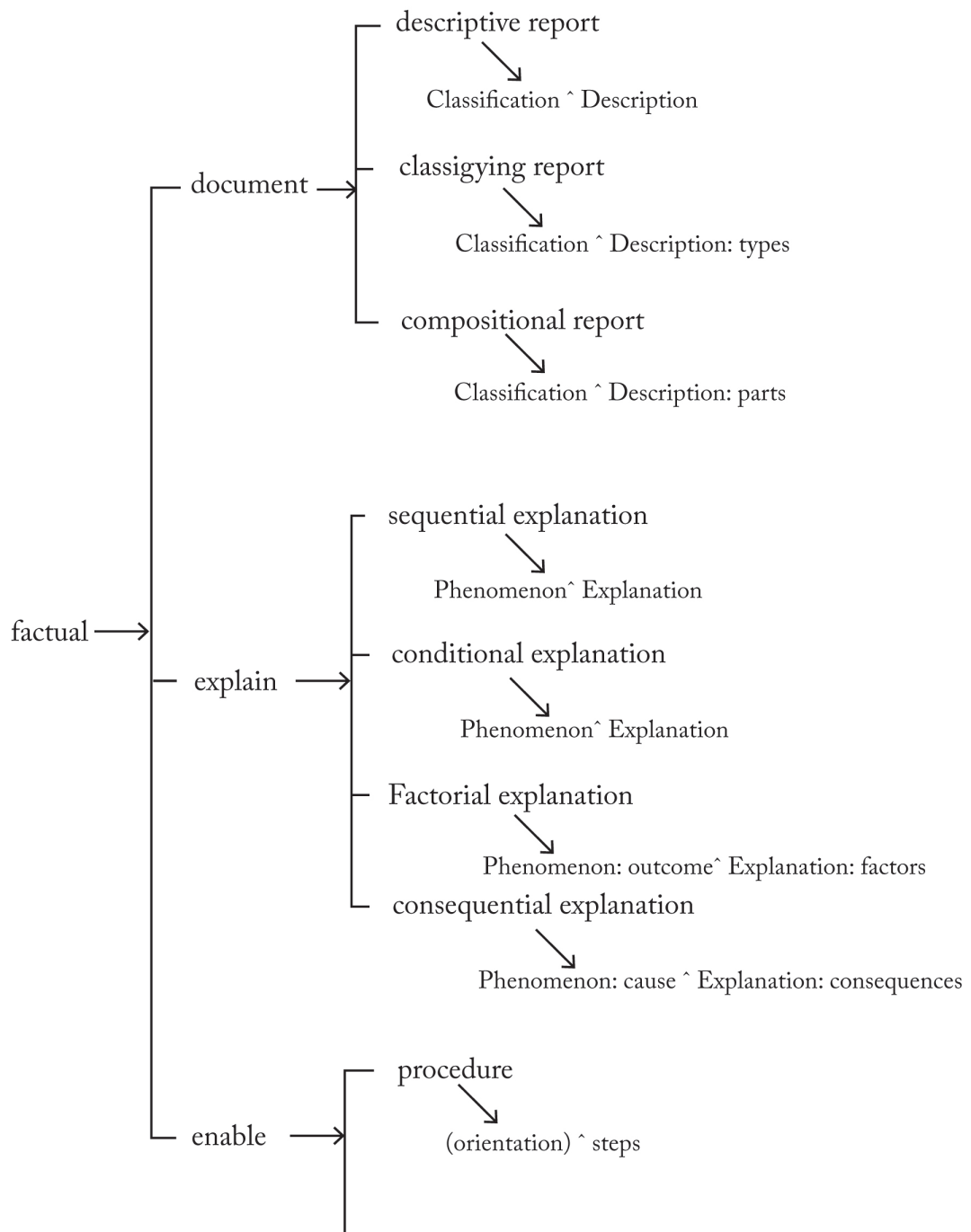


Figure 1.9 Factual genres and stages (Adapted from Veel, 1997: 171)

Within the broader goal of informing, the terms ‘document’, ‘explain’ and ‘enable’ cover a range of functions and purposes for the genres under scrutiny. So the goal of a descriptive report, for example, is to be read as informing, more specifically documenting by classifying and describing a phenomenon or entity. As with all taxonomies, this one also shows both the relationship of various genres to the broader system and their relationship to similar but different (i.e. ‘agnate’) genres in the same branch of the taxonomy. Thus a ‘classifying report’ is a type of report, since it documents a phenomenon or entity but it is different from the other types of reports in that it mentions classes of a phenomenon instead of features or parts of one phenomenon or entity.

As many disciplines, the field of linguistics typically construes disciplinary knowledge through reports and explanations and therefore these two genres will be further explored in the next chapter. Reference will also be made to procedures, as the texts students produce generally respond to directives given by the teacher in such texts.

It is relevant to mention here that this stratification of context, in which genres are not themselves metafunctionally organized but formulated as patterns of register patterns, allows for the classification of texts in groups that cut across different register configurations. For example, a genre such as an explanation may be used in the field of language or biology, written or spoken in mode, exchanged by participants with equal or unequal status. It should be taken into account, however, that the register variable of field has a relevant impact on staging and phasing, predisposing field-specific variations in the schematic configurations within the same genre. And it is also expected that field specific features are likely to reiterate across different genres. Another aspect worth mentioning is that the genres mentioned above can be combined into larger texts called ‘macrogenres’ (Martin, 1994; Christie, 1997). Macrogenres or genre complexes such as textbooks, websites, research articles, novels, among other longer texts, have more complex social purposes, which take multiple genres to be accomplished.

This chapter has taken the text as the point of departure to make general considerations about the model of language underpinning this study. The SFL conceptualization of language as a stratified resource for making meaning in context provides an enlightening and useful framework for the analysis of texts as instances of the linguistic system which in turn realize more abstract contextual semiotic systems. More specifically, this model reveals the complexity of the semiotic task language users engage in when writing (and also reading), having to process all these patterns of patterns of patterns simultaneously (Rose & Martin, 2012: 22).

The following chapter will explore contextual aspects of written text production in undergraduate education and the impact of these features on the texts students are expected to produce. Besides, the relevance of the grammatical system of Theme will be related to the written mode of the texts that are later analyzed in Chapter 3.

CHAPTER 2

TOWARDS A FRAMEWORK OF ANALYSIS FOR STUDENTS' TEXTS



Within the SFL model of language, texts cannot be understood independently of the social environment in which they are produced. Language is a semiotic system whose function is to make meanings in context and thus any instance of language in use should display correspondences with semiotically relevant aspects of context. These tenets about the functional nature of language and its dialectical relationship with the more abstract semiotic systems of context impose methodological considerations that are relevant for the analysis of students' written productions. In particular, texts as objects of study cannot be looked at as self-contained linguistic artifacts, precisely because they are instances of social processes. As such, the linguistic choices from which texts emerge need to be seen in the light of the context in which texts are produced and exchanged and not just in relation to the grammaticality of language structures.

As already mentioned, every text is the instantiation of a goal oriented activity which is realized through patterns of meanings related to the type of institutional activity that is carried out, the roles of the language users engaged in communication and the role of language in the interaction. The next section explores the field of discourse and typical generic configurations of the texts produced by students in this study, which are aimed at demonstrating knowledge on linguistic phenomena. After these inquiries, an essential aspect of students' text production is discussed: its dialogical nature. More specifically, this activity is further contextualized as a move in an exchange initiated by the teacher through the task instructions, which carries crucial implications for text analysis. Finally, relevant aspects of the contextual variables of tenor and mode are considered.

2.1. Field analysis

Field has been defined as a set of activity sequences oriented to some global institutional purpose (Martin, 1992). Thus a description of the specific configuration of this register variable should make reference to what is going on in the situation under analysis and the subject matter involved. Drawing on Martin's schematic representation of activity sequences within the field of linguistics (figure 1.5, pp. 13), we can say that the institutional setting is undergraduate education and the goal to be achieved through text production is assessment, which involves knowledge demonstration. Martin actually uses the label 'knowledge reproduction' to refer to what from my perspective means unchallenged disciplinary knowledge, which is also opposed to 'knowledge creation'. However, I prefer to talk about 'knowledge demonstration', as reproduction may as well be associated with literal repetition of concepts, which is far from being the desired goal in academic settings. Much on the contrary, undergraduate students are expected to transcend literal meanings, being able to relate concepts and to elaborate on those relationships.

Learning processes at all educational levels include evaluation as a core activity. In any learning cycle, students have access to disciplinary knowledge through different types of texts, both spoken and written, and then they are expected to be able to demonstrate what they have learnt in different ways. Within the subject area of grammar, students are required to do different kinds of activities (see Chapter 3, pp. 47), among which written text production plays a predominant role. As future professionals in domains related to a foreign language, either as teachers of English or as translators, students are supposed to be able to display sound reasoning skills when describing or explaining linguistic phenomena (though this also holds for any field of study at university). This involves the ability to conceptualize different aspects of the complex semiotic system of language and also to display institutionally valued reasoning processes, which involve the capacity of linking the realm of abstraction with concrete examples and the reverse.

A key aspect of this institutionalized activity is the nature of knowledge construed within each subject area. In the case of grammar, the field of knowledge is clearly detached from the commonsense construction of experience and relies on technical terminology, which has to be learned by definition through language. This vertical discourse, which classifies the world in uncommonsense ways, is opposed to specialized language, which is available to people operating hands-on in particular spheres of activity such as trades, crafts and hobbies, and can be learned by observation (Martin, 2007: 40).

In the following text excerpted from Eggins (2004: 33-35), which is part of the obligatory bibliography included in the course Grammar II¹, a technical taxonomy is built to explain the phenomenon of reference:

The cohesive resource of **reference** refers to how the writer/speaker introduces *participants* and then keeps track of them once they are in the text. *Participants* are the *people, places* and *things* that get talked about in the text. The *participants* in the following sentence are underlined:

Knowing that Mrs. Mallard was affected with a heart trouble, great care was taken to break to her gently as possible the news of her husband's death.

Whenever a *participant* is mentioned in a text, the writer/speaker must signal to the reader/listener whether the identity of that *participant* is already known or not. That is, *participants* in a text may be either presented to us (introduced as 'new' to the text) or presumed (encoded in such a way that we need to retrieve their identity from somewhere).

Contrast the following:

Knowing that Mrs. Mallard was affected with a heart trouble,

There stood, facing the open window, a comfortable, roomy armchair.

¹This is part of the bibliography read by the students who wrote the texts analyzed in this study.

In the street below a peddler was crying his wares.

All these examples involve **presenting reference**: we are not expected to know anything about Mrs. Mallard, or a heart trouble or which armchair or peddler, as all these *participants* are being introduced to us for the first time. Contrast those examples with:

Into this she sank

Here we have two **presuming reference** items: it is presumed that we know, or can establish, the thing and the person the *this* and the *she* refer to.

...

When the writer uses a **presuming reference** item, the reader needs to retrieve the identity of that item in order to follow the text. That is, if the writer has used the pronoun *she*, for example, the reader must be able to track down just who *she* refers to. **If presuming referents** are not retrievable, (i.e. if the reader cannot figure out who *she* refers to, or there are a number of possible candidates), the interaction will run into problems. For example, note the ambiguity in the following opening sentence from a story we'll be looking at in a minute:

I watched as my companion was attacked by the polar bear

There are three **presuming reference** items in this sentence, none of which we can clearly decode because there is no prior text to tell us who the *I* is who has a companion, nor which polar bear we're talking about (let alone what's he doing there!).

The explanation of the phenomenon of reference gives rise to two taxonomies, the first being more technical than the second one. That is, a technical taxonomy is created for the textual resource under focus (in bold face *–reference, presenting reference, presuming reference–*), which depends on another taxonomy: that of participants –in italics in the text².

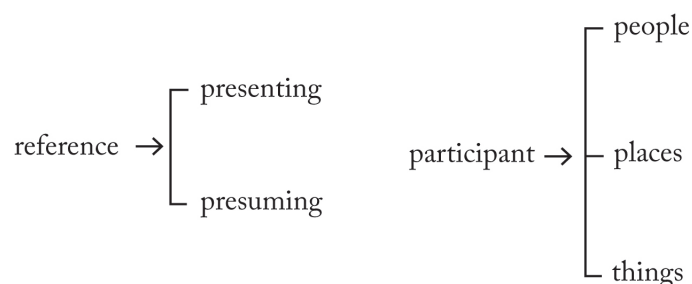


Figure 2.1 Classification taxonomies

² Participants are in turn part of the configuration of the clause as representation, together with the process around which they revolve and attendant circumstances. However, this aspect of the ideational grammar of the clause is not developed in this section of the text.

The taxonomy is further developed as the phenomenon of reference is classified:

The identity of a **presuming reference** item may be retrievable from a number of different contexts:

1. from the general context of culture: for example, when we talk about *how hot the sun is today* we know which sun we are talking about: the sun we share as members of this particular world. We call retrieval from the shared context of culture **homophoric reference**.
2. from the immediate context of the situation: for example, if I ask you to *Put it down next to her*, and we are in the same place at the same time, you'll be able to decode the it as referring to the whatever object I am pointing to, and the *her* as the female in the room. When we retrieve from shared immediate context this is called **exophoric reference**.
3. from elsewhere within the text itself: frequently the identity of the participant has been given at an earlier point in the text. For example:

She did not hear the story as many woman have heard the same

Here we decode the identity of the presuming reference to *she* by referring back to *Mrs. Mallard*, and to *the story* by making the link to the previous paragraph's mention of *the railroad disaster... with Brently Mallard's name leading the list of 'killed'*. When the identity of a reference item is retrieved from within the text, we are dealing with **endophoric reference**.

This activity sequence gives rise to new technical terms naming the participants (in bold face above – *homophoric reference*, *exophoric reference* and *endophoric reference*). A system network for these relations is presented in figure 2.2 below, with general classes to the left and subclasses to the right:

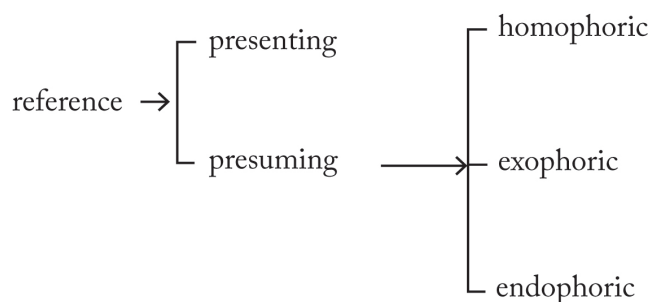


Figure 2.2 Taxonomy for types of reference

The text further refines the taxonomy providing a more delicate classification:

Endophoric reference can be of three main kinds:

1. **anaphoric reference**: this occurs when the referent has appeared at an earlier point in the text. In the example given earlier (*She did not hear the story...*) both retrievals are anaphoric.

Here is another **anaphoric example**:

When she abandoned herself a little whisper escaped her slightly parted lips. She said it over and over under her breath: 'free, free, free!'

We retrieve the identity of the pronoun it by referring back to the presenting referent in the previous sentence: *a little whispered word*.

....

2. **cataphoric reference**: this occurs when the referent has not yet appeared, but will be provided subsequently. For example, imagine Chopin had begun her story:

The news came as a terrible shock to them all, but most of all to Mrs. Mallard. It seemed her husband Brently had been killed in a railroad disaster. His friend Richards, carried the sad tidings to Mrs. Mallard and her sister Josephine.

Here we begin with the presuming references to *the news* and *them all*, but it is only in the second sentence that we learn just what the news was, and only in the third that we can establish the referent for them all.

3. **esphoric reference**: this occurs when the referent occurs in the phrase immediately following the **presuming referent item** (within the same nominal group/noun phrase, not in a separate clause). For example:

When the storm of grief had spent itself

-here we learn *which* storm from the immediately following prepositional phrase *of grief*.

The system network could accordingly be expanded as shown in figure 2.3 below:

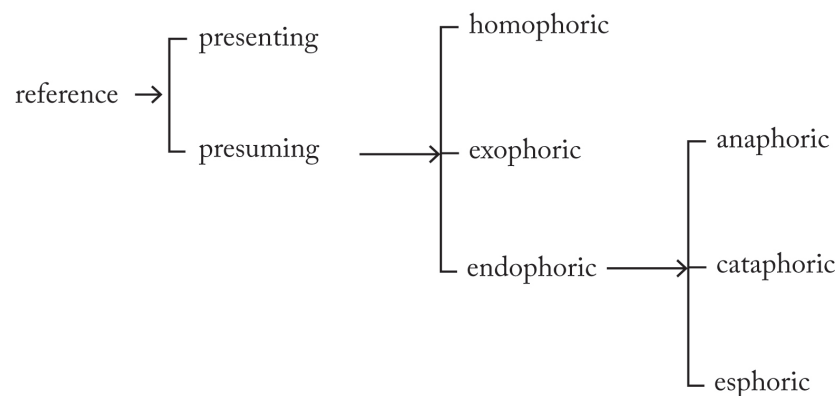


Figure 2.3 Taxonomy for types of reference (complete)

As with all taxonomies, this one also shows both the relationship of various types of reference to the broader system and their relationship to similar but different types of reference in the same branch of the taxonomy (i.e. agnation³). Thus endophoric reference is a presuming type of reference in that it is possible for the reader to retrieve the identity of the reference form from somewhere. However, it differs from exophoric reference in relation to the context of retrieval of the presumed participant.

These deep, precise taxonomies are used to develop realms of knowledge that are specific to the discipline and at the same time each discipline has its own way of organizing knowledge. That is, these field specific taxonomies are typically packaged in genres that are also closely related to the field. The following section will thus look at the genres through which the subject area of grammar typically organizes knowledge in order to provide a more comprehensive description of the way in which language is used in this disciplinary area.

2.2 Field and genre

This field specific, hierarchically organized knowledge is always structured for the achievement of a purpose, which is also discipline specific. Each field predisposes a restricted set of genres that are instrumental for its conceptualization. As Rose and Martin explain, 'different genres are tuned to different kinds of experience, which means that each subject area will have its own relatively distinctive suite of genres' (2012: 85). As already mentioned, the institutional goal under focus is demonstrating knowledge about grammar, as different from creating or challenging knowledge in that disciplinary domain. The genres through which disciplinary knowledge is typically encoded and transmitted to students and which they also use for knowledge demonstration are reports and explanations⁴. These genres, through which linguistic phenomena are described, classified and explained, 'tend to play a complementary role in exploring a topic: reports function to give a picture of 'the way the world is' while explanations tell us how/why the world behaves the way it does' (Veel, 1997: 168). It is relevant to mention that research carried out on the reading material through which students in the course Grammar II have access to disciplinary knowledge has shown that the prevailing types of genres are sequential explanations and classifying reports⁵.

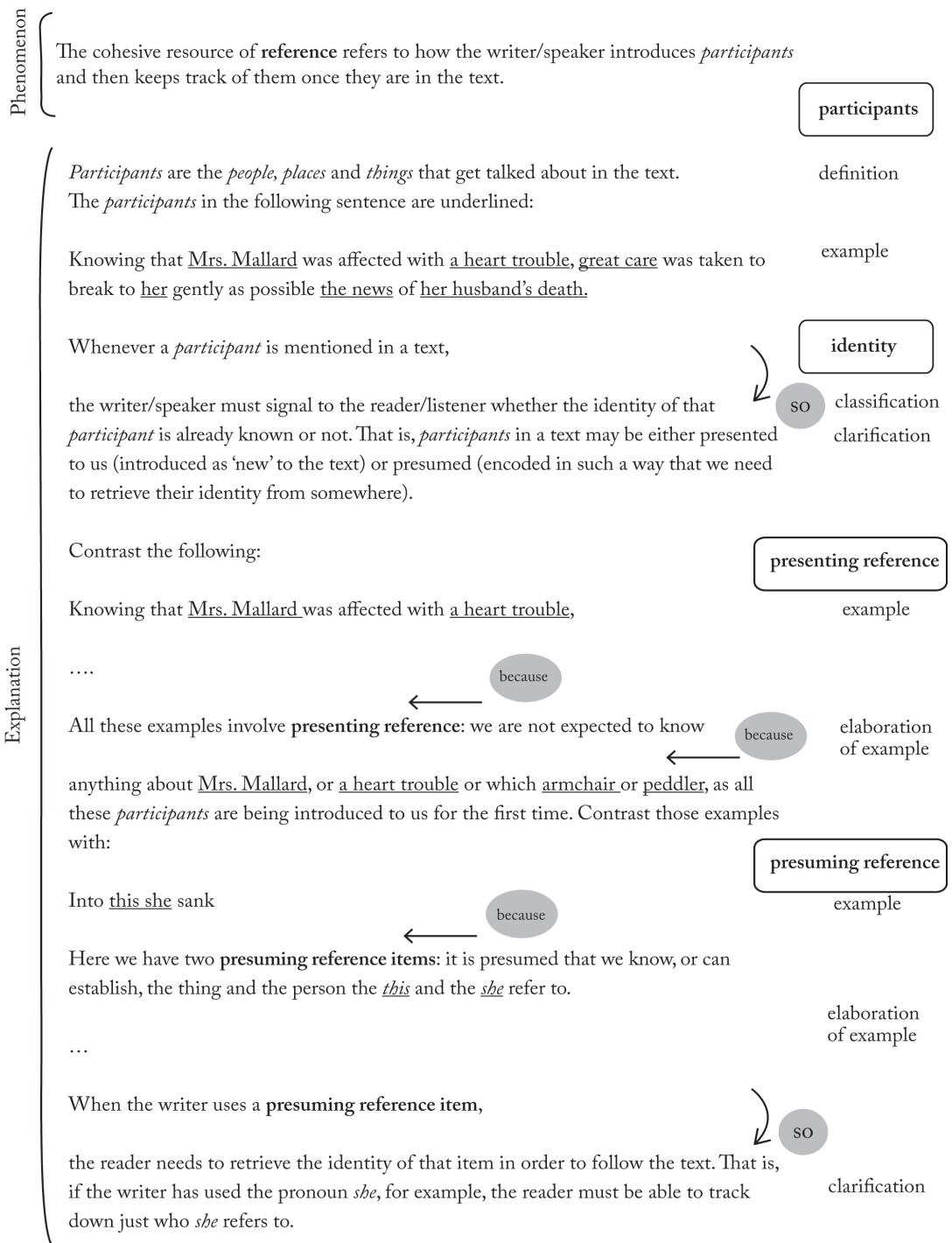
Explanations, which contain sequences of causes and effects, are based on logical reasoning. The logical pattern of cause followed by a result which is then turned into a cause has been called 'implication sequence'. The typical structure of an explanation starts specifying the Phenomenon

³Halliday & Matthiessen (2014: 49) refer to this concept in their discussion of the systemic rather than structural focus on grammar. Agnation, or agnateness, refers to the pattern of systemic relations into which linguistic elements enter and which show how they are related to other linguistic elements in the system. Grammar is a network of interrelated meaningful choices: the dominant axis is the paradigmatic one and the fundamental components of the grammar are sets of mutually defining contrastive features.

⁴The genres associated with 'doing science' are procedures and procedural recounts whereas the ones associated with 'challenging science' are expositions and discussions (Veel, 1997: 166-168).

⁵These are some findings of a research project carried out in our faculty during 2015 within the framework of a research training programme for undergraduate students. 'La estructuración del saber disciplinar en textos académicos de formación en inglés que teorizan sobre fenómenos lingüísticos' (RD 449/2015)

to be explained and is followed by the Explanation itself. Martin and Rose (2008) describe four types of explanations: sequential –a sequence of causes and effects-, factorial –multiple causes that lead to a result-, consequential –a cause with multiple effects-, and conditional –effects that vary depending on conditions. The initial section of the text on reference presented above is an example is a sequential explanation. The same text has been transcribed below to identify its schematic structure –staging is signaled on the left hand side and phasing on the right hand side:



The text begins by defining the Phenomenon of reference, and then works through an Explanation stage in which the phenomenon is explained in cause-effect sequences. The first sequence introduces the participants in discourse and refers to the need to signal whether their identity is known or unknown. This is followed by sequences in which presenting and presuming reference forms are explained in relation to the unknown or known identities of the participants. The explanation finishes with a link between the use of presuming reference forms and the need of tracking the identity of the participant. This explanation can be schematically represented as follows:

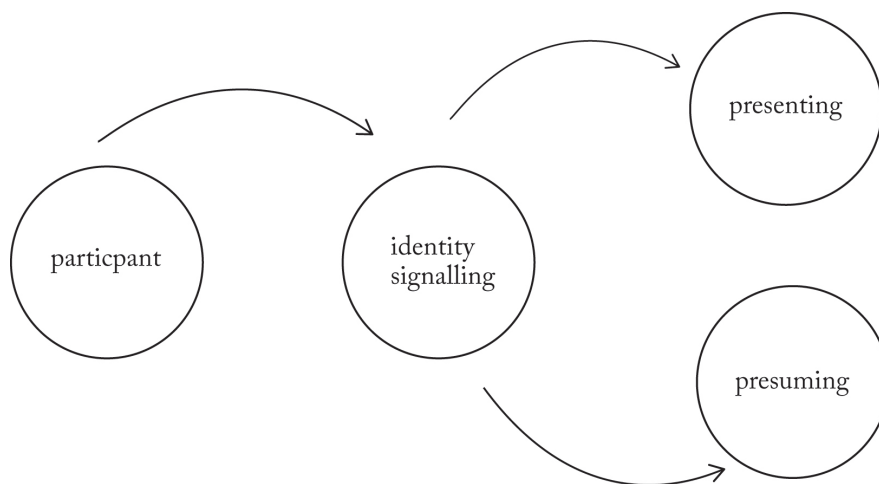


Figure 2.4 Series of phases in sequential explanation

Particularly relevant is the presence of clarification, exemplification and elaboration phases, whose function is to expand on the theoretical concepts introduced and to link them up with concrete examples. These generic features constitute valued ways of reasoning within pedagogical contexts so they can be considered to be field specific.

The other typical genres through which disciplinary knowledge in the field of grammar is encoded are reports. The purpose of reports is to classify and describe phenomena in three different ways. **Descriptive reports** classify a phenomenon and then describe its features selecting different aspects or sets of characteristics of the phenomenon. This is shown in the generic structure of the report which usually starts with a Classification stage in which the phenomenon is defined and then unfolds through a Description stage with different phases for each selected feature. **Compositional reports** are concerned with the description of components of an entity –whole-part relationship-, which is reflected in this schematic structure: Classification followed by Components. And **classifying reports** typically subclassify members of a general class and then describe each one of the types in turn. The typical schematic structure in this case, i.e. Classification system followed by Types, is illustrated in the following text, also presented above to illustrate taxonomies:

Classification system	<p>The identity of a presuming reference item may be retrievable from a number of different contexts:</p>	
Types	<ol style="list-style-type: none"> 1. from the general context of culture: for example, when we talk about <i>how hot the sun is today</i> we know which sun we are talking about: the sun we share as members of this particular world. We call retrieval from the shared context of culture homophoric reference. 2. from the immediate context of the situation: for example, if I ask you to <i>Put it down next to her</i>, and we are in the same place at the same time, you'll be able to decode the <i>it</i> as referring to the whatever object I am pointing to, and the <i>her</i> as the female in the room. When we retrieve from shared immediate context this is called exophoric reference. 3. from elsewhere within the text itself: frequently the identity of the participant has been given at an earlier point in the text. For example: <u>She</u> did not hear <u>the story</u> as many woman have heard the same Here we decode the identity of the presuming reference to <i>she</i> by referring back to <i>Mrs. Mallard</i>, and to <i>the story</i> by making the link to the previous paragraph's mention of <i>the railroad disaster... with Brently Mallard's name leading the list of 'killed'</i>. When the identity of a reference item is retrieved from within the text, we are dealing with endophoric reference. 	<p>type 1 context example elaboration</p> <p>type 2 context example elaboration</p> <p>type 3 context example elaboration</p>

The Classification system introduces a classification criterion, which in this case is the context of retrieval of the identity of reference forms. This stage is followed by the Types stage, in which phases related to each type introduced are presented. Interestingly, the phases of exemplification and elaboration recur, showing the relevance of these mechanisms in pedagogical discourse. This classifying report continues with the subclassification of endophoric reference into anaphoric, cataphoric and esphoric as shown in the system network displayed in figure 2.3 above.

The sections on reference analyzed above constitute a genre complex made up of an explanation and a classifying report. Thus students who read and study these sections in the textbook should be ready to explain how reference occurs and to classify the phenomenon into different types. But they should also be prepared to describe each one of the types of reference mentioned in the text – endophoric, exophoric, etc- , even without having been presented with that information structured in the form of a descriptive report. The information needed to describe endophoric reference, for example, is present in both the explanation and the classifying report but should be restructured following the conventionalized compositional configuration of a descriptive report.

That is, endophoric reference can be classified as a mechanism to track participants in texts and then it can be described in relation to its presuming identity and to the context of retrieval of its identity. Another example of a descriptive report that could be produced with information drawn from the genres above might be a description of commonalities and differences between two types of reference⁶. In this case, it would also be possible to derive the necessary information from the explanation and the classifying report: the similarities can be identified by looking at the features that the two types share as parts of a broader system; on the other hand, the differences can be worked out by focusing on the contrastive aspects that oppose them and make them belong to different branches in the system. These agnate relations can be seen in the following figure, already introduced above to illustrate taxonomic relations for types of reference in the analyzed text.

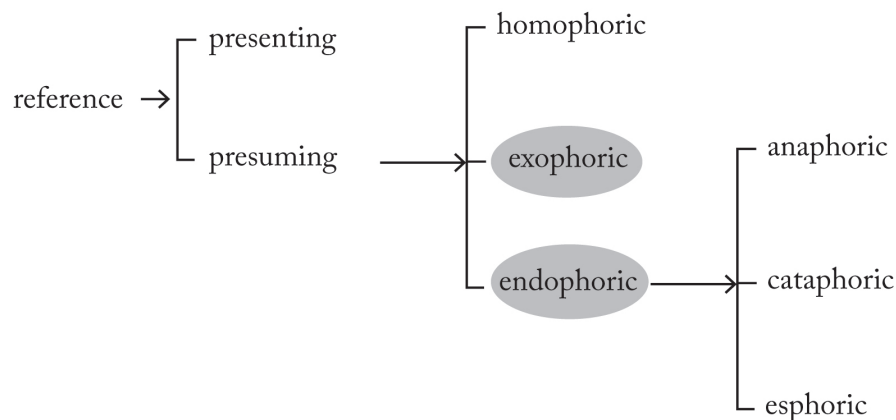


Figure 2.5 Taxonomy for types of reference: commonalities and differences

We can use the figure above, for example, to orient our description of the similarities and differences between endophoric and exophoric reference. By looking at the system network, we can say that both of them are presuming reference forms, which implies that both of them point to participants whose identities are known or retrievable. On the other hand, we can see that they differ as they are types of presuming reference forms that are opposed in terms of context of retrieval. Finally, we can also see that there are further subclassifications for endophoric but not for exophoric reference.

So far we have tried to show that disciplinary knowledge and its structuring need to be learned as part of the apprenticeship into a particular field, in this case the field of linguistics, more specifically grammar. This proves to be a complex semiotic task involving both social and cognitive dimensions. In the following section we will analyze another contextual aspect which adds to the complexity involved in students' production of written texts.

⁶This point is made here because it is closely related to one of the aspects analyzed in students' productions. As will be seen in the next chapter, the task instructions to which students' texts respond are on the field of reference and demand a descriptive report, which is a task some students seem to find problematic.

2.3 Contextualizing students' texts as task responses

Students' texts, independently of the genre they belong to, are not spontaneously produced; instead, they typically emerge as a response to task instructions given by teachers as part of the academic training in discipline specific knowledge. Thus students' written productions cannot be analyzed or understood without accounting for the genre with which they interact.

2.3.1 Task instructions

In terms of genre, task instructions are procedures whose goal is to direct students to do discipline related activities⁷. These texts orient the type of activity that the students are expected to do, requiring actions such as conceptualizing, exemplifying, explaining, identifying, comparing, among others, which involve complex cognitive skills. These procedures⁸ are used to guide knowledge acquisition, teaching students to think and reason with the logic of the discipline (e.g. Rose & Martin, 2012, Riestra, 2002⁹), or to assess acquired knowledge –either formally (e.g. Natale & Stagnaro, 2014) or informally.

The schematic structure of task instructions unfolds in steps that regulate students' performance. As we know, genres generally develop in more than one stage; however, these types of procedures may be brief and specific, presupposing steps that are assumed to be part of the students' knowledge about certain field specific procedures. For instance, task instructions may demand conceptualization and exemplification but most probably they will not explicitly require that students relate the concrete instances to the concepts, even though it will be an expected phase in the response. These types of implied sequences are characteristic of procedures in undergraduate academic settings, as students are expected to be already acquainted with different cognitive mechanisms required to carry out the demanded activities. If a procedure demands comparison, for example, the students will be expected to know that to be able to compare two phenomena it will be necessary to recall and list features of each one of them, relate them, compare and contrast them and group the contrastive features. Therefore, the stages indicating these presupposed activities are likely to be omitted in the procedure¹⁰.

⁷ Riestra (2002) argues that task instructions may foster reflection oriented towards meaningful learning or just lead to reproduction. Along similar lines, Rose and Martin (2012) refer to task design oriented to different types of comprehension: literal, inferential or interpretive.

⁸ The procedure presented in this study could be added to the system of procedural genres in Martin and Rose (2008: 217). The authors introduce four types of 'simple' procedural genres: domestic, topographic, specialized and educational. Task instructions could be added to the last category, which includes experiment and observation procedures.

⁹ See Vázquez et al. (2006), Vázquez (2007), Navarro & Stagnaro (2012), Stagnaro & Chosco Díaz (2012), Natale & Stagnaro (2014) for studies on task instructions at university.

¹⁰ This can be compared with more detailed procedures found in primary and secondary school textbooks (e.g. Martin & Rose, 2008: 186, 199).

2.3.2 On imposed restrictions

The initiating move in the task imposes restrictions on the type of semiotic response, on the field and on the generic configuration of the response. The task instructions demand a service that may require a verbal response, like in the cases analyzed in this study, but also other types of semiotic responses such as a graphic representation, the identification of an item through underlining or syntactic analysis among others. The writer's choices are also restricted at the level of field, as the task instructions generally narrow down the required conceptual domain. The procedure determines the 'what' of the response, which limits the intervention of the text producer. The task instructions also determine the generic configuration of the response that the students must produce, as they orient the type of process that should be carried out – for example explaining, describing or classifying. Although the genres of the response may be variable, they are likely to be restricted to those through which the disciplinary knowledge is typically structured and which are typically negotiated within a particular field of activity –namely reports and explanations in the cases under analysis (and not chronicles or discussions for example).

2.3.3 Interactive nature of the task

The relationship between the genres that realize the task, namely the task instructions and the students' response, is to be understood in terms of Negotiation¹¹, a system that provides resources for taking up speech roles in conversation (Martin, 1992; Martin & Rose, 2007). As already mentioned in Chapter 1 (pp. 19) the basic speech roles in interaction are making statements, asking questions, offering goods or services and demanding goods or services. In terms of speech function, the procedure in the task instructions realizes a command; that is, it demands a service which in the case under study happens to be verbal. This speech function positions the interlocutor to respond in a particular way: more specifically, the student is expected to comply with the demand by giving the written service required. This means that each genre should be seen as realizing a move in an exchange: the procedure in the task instructions is the initiating move and the student's text is the response. In terms of structure, the clauses that realize the procedure may take different grammatical forms: they may congruently realize the directive in the imperative Mood, or metaphorically in the declarative or interrogative Mood (see Chapter 1, pp. 20).

The nature of task instructions and the restrictions imposed by the genre lead to the consideration of the tenor of the situation. As we have seen, task instructions have a regulative function and establish a complex interpersonal relationship between teacher and student. They impose asymmetrical roles for the interlocutors as the initiating move in the exchange is produced by the expert and addressed to a non-expert who has to interpret and comply with restrictive demands. On the other hand, there is frequent contact between both interactants, which may be a source

¹¹ Martin & Rose (2008: 222) refer to a similar case when they describe a procedure for doing geographic observations in a textbook. However, the relationship between genres that make up larger texts or 'macrogenres' is generally analyzed in logical terms, drawing on Halliday's logicosemantic relations (Martin & Rose, 2008: 218).

of conflict as in general terms it implies that 'more can be left unsaid' (Martin, 1992: 531). As students know that their teachers know about the subject matter, the former may work on the presupposition that detailed conceptualization is unnecessary for the latter to understand what is being talked about. However, as the main purpose for text production in this context is knowledge demonstration, economy of information does not seem to hold as an effective principle in this case.

2.3.4 Interpreting the procedure

Students' responses then are not autonomous texts. Task instructions function as a 'contract' that establishes what kind of features students' productions should display (Vázquez et al., 2006; Natale & Stagnaro, 2014), and if the restrictions imposed are not understood and complied with, the responses will be perceived as incoherent. The interpretation of task instructions is thus an essential dimension in the production of coherent texts. That is, the function of task instructions as the initiating move in the exchange is to demand a written service imposing restrictions on both subject matter and genre, and thus a thorough understanding of these restrictions is essential to produce a coherent text. If the genre of the response is not the expected one, for example, the text will be perceived as discontinuous and incoherent, even if it develops accurate conceptual knowledge.

The task as a whole can be described as a co-constructed text in which both teachers and students are text producers and addressees at the same time: the former elaborate the procedure and assess the response, whereas the latter interpret the procedure and produce the response. This is an interactive situation in which one genre engages in dialogue with the other. But the conditions of this interaction are those inherent to the written mode, which adds complexity to the exchange and thus to students' text production.

2.3.5 On task response and mode

Mode is the contextual variable that emerges from the role language plays in the communicative event and its variation can be assessed along two main variables. One of them relates to the amount of work language is doing in relation to what is going on -whether it has a small role to play because it is accompanied by attendant modalities such as image, action, music- or a major function in the construction of experience -being the only meaning making resource the language user can rely on. The other variable is the cline extending from monologue to dialogue, related to the possibility and immediacy of feedback between the interlocutors and the form it may take -aural, visual or both¹².

¹² This dimension of register is further explored in Halliday, 1985c; Halliday and Martin, 1993.

In spite of the task's apparent joint construction of meanings, there is no immediacy in the exchange and thus text interpretation and production are to be entirely carried out by the students. Besides, the responses are expected to display context independency as they are the only semiotic system students can rely on to make the intended meanings. In other words, in spite of the dialogical nature of the communicative event, students' productions are expected to be written, monologic texts.

This dimension is of particular relevance in this study as writing constitutes a mode of meaning different from speech. Whereas in spoken interaction it is possible to reformulate, disambiguate and clarify concepts in relation to the demands of the addressee with relative immediacy, this is not possible in the written mode. This aspect, together with the use of language as constitutive of field and thus context independent, makes the production of written texts particularly complex.

Whereas spoken texts are spontaneous and dynamic, written texts need to rely on a different form of organization and one of the ways in which this is achieved is through clause structure. Whereas speech is dominated by sequences of clauses and operates under an additive principle order, writing arranges clauses according to principles of hierarchy (Cope & Kalantzis 1993: 65). One of the ways in which this hierarchical organization is achieved is through thematic selections at the level of the clause, which create patterns that function as scaffolding principles for the structure of the text. Because of these reasons, linguistic mechanisms related to the hierarchical organization of information and to textual continuity are essential for the production of coherent and cohesive written texts.

2.4 On the system of Theme

The system of Theme is the grammatical resource belonging to the textual metafunction that allows language users to adapt the clause to its textual context, i.e. to link the clause to the text. Every clause that realizes a text is linked to the others semantically through cohesive devices such as reference, substitution, ellipsis, and lexical cohesion, and also through its own structural configuration (Halliday & Hasan, 1976). The arrangement of constituents enables the textual anchoring of the clause: 'its point of departure relates it to what has come before, so that it is clear where the clause is located in the unfolding text and how its contribution fits in' (Martin et al., 1997: 21).

The functional components of the structural configuration of the clause as a message are the Theme and the Rheme. Theme is defined by Halliday and Matthiessen (2014: 83) as 'the point of departure for the message; the element that the speaker selects for 'grounding' what he is going to say'. In other words, this component locates the clause within its context and guides the addressee in developing an interpretation of the message by making part of it prominent. On the other hand, the Rheme provides information about what is announced in the Theme; it is the part of the message that 'is presented against the background of the local context- it is where the clause moves after the point of departure' (Martin et al, 1997: 21).

2.4.1 Theme identification and types

The Theme of a clause –always placed in initial position in English– extends up to the first experiential constituent in the structure of the clause, that is, an element related to an aspect of content. As it is a function from the transitivity structure, it may be realized by a participant, a circumstance or a process.

The following are some examples of the thematic structure of the clause in English:

Theme	Rheme
a. <i>We</i>	<i>can easily decode reference items in this clause.</i>
b. <i>Reference items</i>	<i>can be easily decoded in this clause.</i>
c. <i>In this clause</i>	<i>reference items can be easily decoded.</i>

Table 2.1 Thematic structure

Both in (a) and in (b) the Theme is a participant, whereas in (c) it is a circumstance. This type of Theme, which is obligatory as it carries content, is the element after which the Theme concludes and is called topical Theme.

Topical Themes may be ‘unmarked’ (typical or usual) or ‘marked’ (atypical or unusual)¹³, depending on the Mood structure of the clause. In declarative clauses the unmarked topical Theme coincides with the Subject therefore carrying no special prominence, like in examples (a) and (b) above – table 2.1. When the Theme is realized by a functional element different from the Subject such as a Complement or an Adjunct, it is marked, and, as Halliday and Matthiessen (2014: 97) point out, there should be ‘a good reason’ for placing it as marked. That is the case of the thematized Adjunct in (c).

Topical Theme		Rheme
Marked	Unmarked	
a.	<i>We</i>	<i>can easily decode reference items in this clause.</i>
b.	<i>Reference items</i>	<i>can be easily decoded in this clause.</i>
c. <i>In this clause</i>		<i>reference items can be easily decoded.</i>

Table 2.2 Marked and unmarked topical Theme

¹³ As the organization of the clause is different for different Mood types, the assessment of a topical Theme as marked or unmarked is Mood sensitive. In this study the focus is on Themes in declarative clauses, as that is the predominant Mood choice in students’ texts.

Before the topical Theme there may be textual and/or interpersonal Themes, but they are not obligatory. Textual Themes connect the clause with preceding ones through conjunctions (e.g. and, but), conjunctive adjuncts (e.g. however, in fact) or continuatives (e.g. oh, well), and interpersonal Themes signal interaction or express the speakers' judgement or attitude towards the message or towards its interlocutor mainly through modal adjuncts (e.g. perhaps, certainly) in the case of declarative Mood clauses.

The thematic structure of the clause, which might include textual and interpersonal elements besides a topical one, reflects the tripartite semantic structure of language. However, it is important to keep in mind that although the three metafunctions may contribute to the Theme of the clause, the only obligatory Theme is the topical one. In other words, the Theme starts at the beginning of the clause and concludes once the first experiential element has been found. If before that topical Theme there is an interpersonal or a textual Theme or both, those Themes will be considered together with the topical Theme as a multiple Theme.

The clause in the following figure illustrates the three types of Theme:

<i>But</i>	<i>perhaps</i>	<i>reference items</i>	<i>may not be easily decoded.</i>
Textual Theme	Interpersonal Theme	Unmarked topical Theme	Rheme
Multiple Theme			Rheme

Table 2.3 Types of Themes

The textual Theme realized by the coordinator *but* signals a relationship of contrast between the present message and something that was said before; the interpersonal Theme realized by the mood adjunct *perhaps* indicates the speaker's estimation of the degree of likelihood in relation to the content of the message; and the unmarked topical Theme *reference items* announces something about a participant.

2.4.2 Special Themes

This section includes grammatical constructions whose Themes have a representational function with prominent status but which, even so, are somehow different from marked topical Themes¹⁴. The thematic structures considered here are **absolute** and **picked up Themes**, which are realized

¹⁴ Halliday and Matthiessen (2014: 21) classify marked Themes as either absolute Themes or as Themes that are part of the transitivity structure of the clause.

by constituents that have no role in the transitivity structure of the clause, and **thematic equatives** and **predicated Themes**, which single out one or more elements of the message packaging that information into a different clause.

Absolute Themes

Absolute Themes are outside the transitivity structure of the clause and may be introduced with phrases such as *concerning*, *as regards*, *as for*, among others. This type of Theme announces ‘what the clause is going to be about’ before the clause itself, and is thus given special prominence. This is an example of a Theme that stands outside the clause while providing a framework for its interpretation:

As regards similarities, endophoric and exophoric reference have the function of tracking participants in the text.

These Themes are strongly highlighted and they are often used in written English to mark transitions and shifts from topics (Lock, 1996: 226), building up new phases and stages in discourse. Some students seem not to be aware of the additional prominence conveyed by these types of Themes and tend to overuse them, creating undesired effects such as apparent initiation of stages or phases in discourse when that is not the case.

Picked up Themes

These Themes, also referred to as ‘preposed Themes’ (Fontaine, 2013; Thompson, 1996), are somehow similar to absolute Themes as they are realized by a separate constituent which is not part of the transitivity structure of the clause. However, they differ from such Themes in that in this case the thematized constituent is later picked up in its natural place in the clause. For example:

As regards endophoric reference, it is a device that creates cohesion.

In this example, the Theme *as regards endophoric reference* is later picked up through the pronoun *it* in subject position in the transitivity structure of the clause (though it may be picked up in other positions, like that of the object for example).

Another difference Halliday and Matthiessen (2014: 91) mention between these Themes and absolute Themes is that whereas the relationship between the point of departure and the content of the clause is made explicit in the case of picked up Themes, it remains somehow hidden in the case of absolute Themes and therefore the inference about that relationship is left to the reader.

Predicated Themes¹⁵

The strategy of Theme predication is used to give special prominence to a constituent that would otherwise be unemphasized (Eggins, 2004: 316). Any element with a representational function in the clause may be thematized and at the same time given informational prominence without being placed in Rheme position, which is the usual location for prominence. Because of this, the information in the thematized constituent becomes highly foregrounded, signaling contrast or something contrary to expectation. In other words, through the process of Theme predication, which involves the introduction of a second clause, one experiential element is singled out to serve as Theme and New at the same time:

It is endophoric reference that creates cohesive links.

The comparison of this example to its agnate non-predicated version '*Endophoric reference creates cohesion*' helps visualize the informational strength conveyed by the predicated theme '*it is endophoric reference*' and the contrastive meaning it carries in spite of the shared content of the Themes in both cases. These structures are particularly useful to signal stages in the development of written texts or to anticipate what might be the reader's expectation and counter it. And precisely because of this, when inappropriately used in cases in which no contrast or counterexpectation is meant, they may create a sense of incoherence and discontinuity.

Thematic Equatives¹⁶

Through this special thematic resource two or more separate elements in the message are grouped together into a single clause constituent as can be seen in the following examples:

(a) ***Endophoric reference** creates cohesive links.*

(b) ***What creates cohesive links** is endophoric reference.*

If the thematic equative (b) is compared with the non-equative form in (a), it is possible to see that with this thematic resource all the elements of the clause are organized into two constituents linked by a relationship of identity (Halliday & Matthiessen, 2014: 93). In terms of transitivity, the message is presented as an identifying clause¹⁷, with the Identified realized by the wh-clause, technically a nominalization consisting of a Head '*what* (the thing)' and a post-modifying relative clause (embedded¹⁸ in the nominal group) '(that) *creates cohesive links*'. Typically the wh-clause comes first in the clause, therefore being the unmarked Theme position. However, this usual order

¹⁵ Often discussed under the heading of 'cleft sentences' or 'it-clefts'.

¹⁶ Often discussed under the heading of 'pseudo-clefts' or 'wh-clefts'.

¹⁷ For a thorough explanation on identifying clauses see Halliday & Matthiessen (2014: 276-285)

¹⁸ See Halliday & Matthiessen (2014: 127) for a definition of embedded clauses. For further development of the concept see chapters 6 & 7.

may be reversed, like in the clause below, in which the Identifier is thematized and thus becomes a marked thematic equative:

(c) *Endophoric reference* is what creates cohesive links.

The additional meaning that this resource conveys is that of exclusiveness (Halliday & Matthiessen, 2014: 95), as can be seen if (b) and (c) are compared to (a), the thematic equatives seem to mean 'endophoric reference and nothing but endophoric reference'. These types of Themes also have a relevant function in textual staging (Lock, 1996; Thompson, 1996) and as mentioned above their misuse may puzzle the reader.

2.5 Beyond the clause: thematic development within the text

The thematic principle of textual organization can be extended beyond the clause taking larger units into consideration. Drawing on the work of Danes (1974)¹⁹, Martin (1992) proposes the concept of hyper-Theme²⁰ to refer to 'an introductory sentence or group of sentences which is established to predict a particular pattern of Theme selection in the following sentences (p. 437)'. The function of this Theme is then an announcement for the whole paragraph instead of the point of departure of a single clause. If a text introduced by this type of 'hyper-announcement' does not include the predicted sequence of clause Themes, 'it may be read as less than coherent', as thematic selections and the patterns they create in texts are an important aspect of texture (Martin, 1992: 437).

From a discourse perspective, Fries (1983) argues that thematic selections at clause level are not random but closely related to the organization of information in the whole text. This means that Themes should always be motivated by their textual context. Fries states that the patterns of thematic choices realize what he refers to as the 'method of development' of the text. The experiential information contained in the Themes of individual clauses scaffolds the structure of the text, providing a framework for the overall textual organization.

Martin (1992) further elaborates on the concept of method of development relating it to the texture of texts. Interpreting the texts metaphorically as a trip, the author claims that the method of development is the plan, the route taken; it is what

...establishes an angle on the field. This angle will be sensitive to a text's generic structure where this is realized in stages. Method of development is the lens through which a field is constructed; of all the experiential meanings available in a given field, it will pick on just a few and weave them through Theme time and again to ground the text- to give interlocutors

¹⁹The author suggests an interpretation for the 'thematic progression' in texts, proposing basic patterns of relatedness of Themes to preceding Themes and Rhemes.

²⁰The principle can be extended even further to longer texts in which macro-Themes (possibly a paragraph) may predict a set of hyper-Themes. However, this study will rely on the concept of hyper-Theme as the analyzed texts are relatively short. For a thorough explanation of the discourse function of hyper-Themes see Martin & Rose (2007) chapter 6.

something to hang onto, something to come back to- an orientation, a perspective, a point of view, a perch, a purchase. (p. 489)

An important point made by Martin which is relevant for this study is that there is a relationship between the thematic selections and the generic staging in texts. As texts are made up of grammar and Theme is the grammatical system in charge of organizing information, patterns of thematic selections should organize the genre's stages and phases. Part of the analysis of students' texts in Chapter 3 explores how appropriate thematic selections help to build up stages and phases in discourse contributing to a clear organization, whereas inaccurate ones interfere with the textual development obstructing the reading process.

This chapter has explored relevant semiotic aspects for students' text production. The field of discourse under concern, i.e. demonstrating knowledge about language, has been analyzed and related to discipline specific genres through which knowledge is structured. The nature of the mode of discourse has been described and related to its grammatical realization through the thematic structure of the clause, highlighting the relevance of this system in the production of written monologic texts. Students' texts have been further contextualized as responses to task instructions, accounting for the dialogical dimension of the task as an exchange. The following chapter will draw on these concepts to describe the texts in the corpus focusing on the organization of information at discourse and clause levels. More specifically, the analysis will inquire into aspects of the schematic structure and thematic choices in students' texts to analyze how appropriate they are for the context in which they are produced.

CHAPTER 3

METHODOLOGY AND DATA ANALYSIS



3.1 Task instructions design and data collection

For the data collection I designed a set of instructions that was meant to be part of a more extensive examination on different resources for text creation. This task, in which the assessment involved text production, was accompanied by other tasks that required different types of ‘doings’, such as providing missing lexical or grammatical elements in texts or analyzing lexico-grammatical resources, supplying the required information in charts. The exam was preserved as the framework for the production of the texts to be analyzed in the present study because it is the typical context in which students write texts to demonstrate acquired knowledge. However, I am aware that this decision makes it impossible to control variables such as the time each student allotted to the task-response section.

The target of the designed task instructions was conceptual knowledge on the linguistic phenomenon of *reference*, which was one of the assessed topics together with other cohesive resources -substitution, ellipsis, lexical cohesion-, syntactic relations between clauses, and logico-semantic relations. These are the content areas developed during the first three months of the course and included in the first exam. The students have access to these contents through textbooks, class discussions and different types of activities aimed at both analyzing and using the different linguistic resources. Reference was chosen as the topic of the task because of the acquaintance of the students with the resource. This essential aspect of text production, which is concerned with tracking participants in discourse, is addressed in the first years of the grammar and language courses students take both in their L1 and L2 and it is revisited in our course from a Systemic-Functional perspective, building on the work of Halliday and Hasan (1976). The familiarity with the resource was expected to allow students to devote more attention to the required conceptualizations, the metalanguage needed to build up the field accurately, and relevant features of textual organization.

Another aspect considered for the elaboration of the task was that the answer should transcend knowledge reproduction. In the source texts through which the students have access to conceptual knowledge, the phenomenon of reference is explained, classified into different types and described. In the task, on the other hand, one of those classifications- specifically endophoric and exophoric types of reference- was taken as the point of departure, but the focus was on the commonalities and differences between those two types of reference, which aimed at a further elaboration on the part of the students. That is, students were expected to be able not just to recall features of each one of the types, but also to compare and contrast them in order to find shared and dissimilar aspects to be described. The length of the response was pre-determined (10-12 lines), imposing further restrictions on the selection of relevant concepts.

The considerations above gave rise to the following task:

What are the similarities and differences between endophoric and exophoric reference? Illustrate with relevant examples. (10-12 lines)

The exam in which the task was included was done by 51 students belonging to the evening shift of the course *Grammar II*. This group, which was an intact one, was one of the four groups taking the course at the moment of the data gathering. The collected handwritten texts were transcribed for their processing and analysis. It is important to point out that the analysis focused on dimensions related to the organization of information in texts, overlooking other types of linguistic problems which, though relevant, were not the object of the present study. Therefore, inaccuracies related to field construction or more formal structural problems such as those of agreement were not examined.

3.2 Scope of analysis

3.2.1 The task instructions

Considering that the texts written by students are not autonomous but related to a set of instructions to which students respond and with which their texts are sequenced as moves in an exchange, the analysis of the instructions was taken as the point of departure. That is, our analysis focused first on the procedural genre and the structural configuration of the clauses that realize it, with the aim of anticipating relevant compositional features and predicting potential patterns of thematic selections in the 'response'.

As has already been mentioned, clauses have three simultaneous structural configurations, which correspond to the three metafunctions of language: interpersonal, experiential and textual. These three layers of meaning were the object of our analysis in the task instructions, as they were expected to reveal key aspects of the texts under study. More precisely, the interpersonal, experiential and textual configurations of the clauses that realize the instructions allowed us to describe the type of negotiation going on, and to predict aspects of the generic structuring and potentially preferred thematic choices in the following move: the response.

A description of the Mood choices in the clauses that realize the instructions revealed aspects of the exchange between interlocutors, that is, the types of roles adopted and assigned, and the kind of response expected in the subsequent move. On the other hand, an analysis of the experiential structure of the clauses (the configuration of processes, participants and circumstances) allowed us to identify the restrictions imposed on the content and anticipate the structural configuration of the response, more specifically the type of genre expected as a response and the stages and phases through which it would likely unfold to fulfill its purpose. Thematic selections, in turn, provided information about the elements that functioned as anchoring points in the messages that realized the procedure.

On the basis of this analysis, we predicted the generic structuring of the response and anticipated potentially preferred thematic selections that would scaffold that rhetorical organization. It is important to point out here that the genres that were likely to occur as a response were 'factual' ones, more specifically reports or explanations, as they are the prototypical genres through which disciplinary knowledge in the field of linguistics is built in the texts negotiated in our subject. In the case of this task, the genre expected as a response was a descriptive report unfolding in phases of similarities and differences between the two types of reference mentioned in the instructions.

3.2.2 The task response

In a second phase we analyzed the structural configuration of the responses, identifying the stages and phases in their development. The analysis of the schematic structure of the texts follows these conventions:

- a. the horizontal lines signal boundaries between the functional components of texts.
- b. the round brackets and labels -with initial capital letter- in the left-hand column signal stages in texts.
- c. the round brackets and labels -in lower case- in the right-hand column signal the phases that realize textual stages.

After marking these functional components in each transcribed text, we transferred the data to a chart in which expected, unexpected and alternative stages and phases were included. This allowed us to determine whether the structural organization of field in the response correlated with the demands of the task instructions and to analyze the corpus both quantitatively and qualitatively.

The other aspect of the organization of information under analysis in the response was related to the structural configuration of the clause as a message. As mentioned before, texts are realized by clauses and the arrangement of information within these structural units is constitutive in the creation of discourse stages and phases, even more so in the case of written, monologic texts. As the grammatical system that plays a role in the textual contribution of the clause is the Theme, our focus was on the contribution of patterns of thematic selection to the organization of field in stages and phases as demanded in the task instructions¹.

To assess the contribution of thematic choices to textual continuity and to the construction of generic staging, we identified them clause by clause in each text. The selected Themes, made up of all the constituents in initial position up to the first experiential element, were classified as textual, interpersonal and topical (marked or unmarked), categories that correspond to each of the three metafunctions of language (Chapter 2 section 2.4) . A further category of 'special Themes'

¹ No correlation was established between the analysis of schematic structure and the thematic analysis text by text. Although it might reveal relevant data, it is beyond the scope of this study.

was established to account for those starting points of clauses which carried a representational function with prominent status but which were somehow different from marked topical Themes. Those were the cases of absolute and picked up Themes, which involve constituents that have no role in the transitivity structure of the clause, and thematic equatives and predicated Themes on the other hand, which single out one or more elements of the message packaging that information into a different clause (Chapter 2 section 2.4.2). These are the conventions for Theme identification followed in this study:

- a. all topical and special Themes -absolute Themes, predicated Themes, picked up Themes²- are highlighted in bold.
 - i. marked topical Themes are underlined with a continuous line.
 - ii. absolute Themes are underlined with a dotted line.
 - iii. picked up Themes are identified with double underlining.
 - iv. predicated Themes are signaled with wavy underlining.
- b. textual Themes are bracketed.

As two or more clauses can be linked together within a clause complex, it was necessary to establish clear boundaries for Theme identification. To do so, this study used the unit of analysis proposed by Fries³ (1983, 1995a) though with some minor modifications mentioned in (III.a) below⁴. The following are the criteria adopted for thematic analysis with subsequent examples that illustrate them:

All independent clauses, whether simple clauses or part of clause complexes, were analyzed for Theme (I). In clause complexes with hypotactically related clauses preceding the main clause, the fronted dependent clause was taken as the Theme of the whole clause complex and thus considered an orienting context of the information in the independent clause, which was taken as Rheme (II). On the other hand, Themes of dependent clauses in final position were not analyzed as this is the typical ordering of clauses, where the main clause is followed by a modifying clause (III.b). However, deviating from Fries' thematic analysis, this study did consider for Theme identification dependent clauses in final position when they expressed a contrastive logical relation (III.a). These clauses were chosen for Theme analysis since, given the contrastive nature of the response, they were considered to make a contribution to the detection of thematic patterns that scaffolded the text. Although Theme analysis of the dependent clauses expressing other types of logical relations might reveal interesting information about processes of clarification, elaboration and explanation

² Both topical and special Themes carry experiential meaning.

³ Fries takes as the unit of analysis a structure larger than a clause but smaller than a sentence consisting of an independent clause together with all hypotactically related clauses. That unit is labeled 'independent conjoinable clause complex'.

⁴ Fries does not analyze Themes in any dependent clause following the main clause in the 'independent conjoinable clause complex'.

of causality, which are relevant in academic discourse, it was left out of the present study so as to focus on the Themes that were more relevant in the construction of the rhetorical organization of the expected descriptive reports. The examples below illustrate these criteria:

I. Theme analysis in independent clauses:

- *Endophoric reference creates cohesion.*
unmarked topical
- *In this text all reference forms are cohesive.*
marked topical
- *[On the other hand], exophoric reference does not create cohesion.*
textual unmarked topical
- *It is endophoric reference that creates cohesion.*
predicated
- *What endophoric reference does is create cohesion.*
thematic equative
- *As regards cohesion, endophoric reference is a resource that creates internal unity in texts.*
absolute
- *As regards endophoric reference, it creates cohesion.*
picked up
- *Endophoric reference can be cohesive or non-cohesive, [but] exophoric reference is always non-cohesive.*
unmarked topical textual unmarked topical

II. Theme analysis in clause complex with dependent fronted clause:

- *While exophoric reference is used to point to an entity outside the text endophoric reference is used to point to another item inside the text.*
marked topical

III. Theme analysis in clause complex with dependent clause following main clause:

a. Expressing contrastive relation:

- *Endophoric reference points to entities within the text [whereas] exophoric reference makes the reader/speaker retrieve the information from the immediate context.*
unmarked topical textual unmarked topical

b. Expressing other logical relations:

- *Endophoric reference is cohesive because we can retrieve the meaning of the item in the text.*
unmarked topical textual and topical not analyzed

Since the analyzed texts were produced by students, some of them contained sentence fragments, which were problematic cases for Theme identification. In most of the texts, those faulty constructions were used to introduce examples as illustrated below:

a) *For example, I bought two books. They are interesting and colourful.* (Text 43)

b) *For example, in the sentence 'The book I bought was old. It belonged to the seller's grandfather.'*
(Text 5)

According to our interpretation, the example in (a) is presented as the subject of the clause and the one in (b) as an adjunct, with the rest of the construction missing. In line with this, Theme analysis in these cases was carried out as follows:

a) [*For example*], *I bought two books. They are interesting and colourful.* (Text 43)
textual unmarked topical

b) [*For example*], *in the sentence 'The book I bought was old. It belonged to the seller's grandfather.'* (Text 5)
textual marked topical

Although this was a recurrent difficulty in the analyzed texts, no further analysis or comment about these cases will be made in the present study as this type of difficulty is out of its scope.

The identified and classified Themes were transferred text by text to charts like the one below:

Text N°	Textual Theme	Interpersonal Theme	Topical Theme		Special Theme
			marked	unmarked	
					absolute/picked up/ predicated Theme/ thematic equative

This information made it possible to focus on the selected thematized participants and assess their contribution to genre scaffolding and information flow in each text in relation to the expectations set up in the task instructions. It is important to mention here that although the task instructions orient the direction of the unfolding text so that it is possible to predict likely patterns of thematic selection, they should not be considered to be predetermined. Our understanding of 'predictability' is in line with Fries' (1995b), who highlights that he uses the term

...to refer to what might be called 'postfacto' prediction. That is, once I have read the 100th sentence and I have found what the Theme is, I should be able to reconstruct why it is what it is, and thereby infer something about the author's purpose in using the wording that was used. Perhaps a more accurate description for what is involved is to invoke the notion of 'lack of surprise'. The reader is not surprised when he discovers the wording for a particular segment he is reading, and he finds that wording reasonable in terms of what he infers the purposes of the author to be. (p. 53)

On the basis of this qualitative analysis, the texts were grouped according to the nature of the difficulties they presented.

3.3 Data analysis and interpretation

As has been mentioned before, an assessment task is conceptualized in this study as a part of a macrogenre –the exam- and can be interpreted in terms of Negotiation as the sequence of two genres that realize moves in an exchange. The initiating move is a procedure whose function is to demand a service that requires a linguistic response, more precisely a written one in this case. This initiating move in the exchange restricts both the content and the genre of the subsequent move, so for this adjacent pair to be compliant, it should give the demanded service attending to the field and generic restrictions imposed in the procedure. That is, a response that does not comply with these limitations will be perceived not to address the task instructions and thus disrupt textual continuity.

Since an assessment task is a semantic unit in which the task instructions enact and assign a role and determine both the content and the structural configuration of the response, the analysis of the instructions was taken as the point of departure to set up the expected linguistic dimensions of the following move. The description departed from the schematic structure of the procedure and then the grammar of the clauses that realize the instructions was analyzed from the three metafunctional perspectives (experiential, interpersonal and textual).

3.3.1 Task instructions analysis

As has already been said, task instructions are procedural genres that can vary in relation to the type of activity demanded – verbal or non-verbal - and also in their length – one or more steps may be taken to direct students to perform the activities required for knowledge demonstration. In this case, the activities to be carried out are indicated in two steps: the first one requires conceptualization whereas the second one demands exemplification.

Step 1 What are the similarities and differences between endophoric and exophoric reference?

Step 2 Illustrate with relevant examples.

This procedure arguably presupposes a third step, which is the elaboration of the relationship between the examples and the conceptualization demanded. It may be speculated that this third step is not explicitly stated as in academic settings students are assumed to know that being able to establish relationship between concepts and examples is an expected reasoning activity in the process of knowledge demonstration.

The description of the three structural layers of the clauses that realize the task instructions reveal some of the potential complexities that the wording of the procedure might present to students. Although apparently straightforward, the meanings coded in the structures may present challenges that the grammatical deconstruction of the structures could help to tackle. The following three-layered structural analysis, which involves rather technical explanations, aims at uncovering the

hidden intricacy of the meanings made in this first move in the task instructions, which may otherwise remain unnoticed.

The procedure *What are the similarities and differences between endophoric and exophoric reference? Illustrate with relevant examples* is realized by two independent clauses which signal a sequence of steps to be followed.

From an interpersonal perspective, the clauses that realize this genre are arguably commands: their function is to demand something and the negotiated commodity is a service, which in both cases happens to be verbal. Two relevant aspects need to be mentioned at this point: the grammatical realization of this speech function and the implicit processes presupposed by the clauses that realize the task instructions.

As we already know, the semantic meaning of ‘command’ is typically realized through imperative Mood choices, though it may have alternative or ‘metaphorical’ grammatical realizations (see Chapter 1, section 1.2.4). The first clause in the instructions realizes the command metaphorically as the selected Mood structure is interrogative, typically used to demand information. On the other hand, the second clause, which requires exemplification, realizes the command congruently through an imperative Mood choice.

The typical or congruent realization of the demand in the first clause might be *Describe the similarities and differences between endophoric and exophoric reference*, in which the process ‘describe’ makes the type of verbal activity expected in the response more explicit. It is important to point out here that the compliance of the verbal service demanded involves several previous cognitive processes that are not explicitly stated in the task instructions because of the nature of the genre and the context in which it occurs. In other words, describing the commonalities and differences between both types of reference implies activating knowledge about the phenomenon, recalling and listing features of each one of the types, comparing and contrasting those features, grouping them into similar and different ones. The absence of these procedural steps in the task instructions presupposes an addressee who, being an undergraduate student, is assumed to be able to reconstruct them and to follow them – either consciously or unconsciously- to successfully comply with the written service required. The demand in the second clause, on the other hand, involves the ability to link abstract concepts with specific instances and thus also presupposes implicit procedures such as reflecting on the abstract concepts described, thinking of specific instances of the phenomenon, relating those instances back to the theoretical concepts developed in the first part of the response.

To sum up, the clauses that realize the procedure enact commands through different grammatical structures; the interrogative Mood clause does so metaphorically, whereas the realization in the second case is congruent. Both structures signal steps in the procedure, which presuppose other implicit steps that are not linguistically realized but implied because of the context in which this genre is used.

The commands that realize the first move in the exchange also restrict the ‘field’ or content and determine the genre of the following move, anticipating phases in its development. An analysis of

the experiential meanings encoded in the clauses that realize the task instructions reveals relevant aspects of the expected organization of information in the following move. More specifically, it allows to anticipate the compositional structure of the response and to predict patterns of thematic selection that will scaffold that rhetorical organization.

The experiential aspect of the negotiated ‘written service’ is encoded in the transitivity structure of the clauses. The first clause that realizes the task is an identifying relational clause with its two inherent participants: a Token and a Value⁵.

What are the similarities and differences between endophoric and exophoric reference?

Value	Pr: relat.	Token

In general, the Token stands for what is being defined whereas the Value has the role of defining the Token. However, in this case, because of the interpersonal function of the clause -a demand for a written service-, the Token *the similarities and differences between endophoric and exophoric reference* stands for what ‘should’ be defined, which is the required service. On the other hand, the Value *what* does not define but asks for definition.

What is supposed to be defined then? The answer to this question is encoded in the ideational structure of the nominal group⁶ *the similarities and differences between endophoric and exophoric reference*. An analysis of the complex grammatical coding of this structural component of the instructions reveals potentially challenging issues. More specifically, what deserves special attention is the dissociation of Head and Thing in the logical structure of the group⁷.

The Head is a functional component in the logical structure of the group and, as can be seen, the Heads of the noun group complex under analysis are the nominalized adjectives ‘similarities’ and ‘differences’, which are in turn post-modified by the prepositional phrase *between endophoric and exophoric reference*. The Head is typically conflated with the Thing, which is the functional component that constitutes the semantic core in the experiential structure of the nominal group. However, in this case Head and Thing are dissociated⁸. That is, whereas the logical function Head is realized by the nominalized adjectives *similarities* and *differences*⁹, the experiential function Thing is realized by the noun *reference*. The semantic core in the group that realizes the Token is thus *reference*, which is in turn classified as endophoric and exophoric. Structurally speaking,

⁵ See Halliday & Matthiessen (2014: 259-300) for a detailed description of relational clauses.

⁶ See Halliday & Matthiessen (2014: 364-396) for a detailed description of the nominal group.

⁷ Also known as ‘modification’ (Halliday & Matthiessen, 2014: 389).

⁸ See Halliday & Matthiessen (2014: 392).

⁹ Nominalizations are characteristic of written, technical discourse and can present additional difficulties that will not be analyzed in depth in this study. For a thorough exploration of the role of nominalization in scientific language see Halliday & Martin (1993).

the Thing (*reference*) gets embedded within a prepositional phrase and the preceding noun group (*the similarities and differences*) has the function of delimiting the Thing in terms of generality, by referring to some specific aspects of it.

These two dimensions of structure are shown in the following chart:

the similarities and difference between endophoric and exophoric reference

experiential	Type			classifier	Thing
	Deictic	Thing			

logical	Modif.	Head	Postmodifier		
			Modifier		Head

While the classified Thing *endophoric and exophoric reference* is the entity that functions as participant in the transitivity structure of the clause, the logical Head of the construction (*the similarities and differences*) is something that constrains the already classified entity. In other words, the semantic core is *reference* of endophoric and exophoric type and the logical Head restricts the scope for the characterization of that participant.

It is relevant to point out here that these meanings could be differently coded through alternative experiential structures that may help clarify the representational content of the task instructions. For example, in the alternative version *Endophoric and exophoric reference have similarities and differences. Describe them*, apart from the selection of a congruent realization of the demand, as explained above, the same fragment of reality is construed by means of two figures realized by a relational clause followed by a material clause.

Endophoric and exophoric reference have similarities and differences.

Carrier	Pr: relational	Attribute
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Describe them.

Pr: material	Goal
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Although the represented fragment of reality remains the same, the alternative realization somehow ‘decompresses’ the information presented in the original instructions in two ways:

- the noun group *the similarities and differences between endophoric and exophoric reference*, which realizes a single participant, is turned into a relational clause in which *endophoric and exophoric reference* is one of the inherent participants and *similarities and differences* the other.
- the type of service demanded is made explicit through the material process *describe*, followed by the Goal *them* realized by a personal pronoun that refers anaphorically to the Attribute of the previous clause: *similarities and differences*.

Going back to the analysis of the experiential and logical structure of the original task instructions, we can see how they restrict both the aspect of field to be developed in the response and the way in which these experiential meanings should be schematically organized. In particular, the Thing narrows down the field to the description of features of endophoric and exophoric reference, and the logical Head constrains the organization of those features as a descriptive report structured in phases of similarities and differences. That is, the features of endophoric and exophoric reference are not expected to be mentioned in relation to each one of the types as would be the case of a classifying report, but they should be organized around their commonalities and differences.

The second clause in the task instructions anticipates a further phase within the description. As shown in the table below, the transitivity structure of the clause, which is a configuration of the material process *illustrate* and the peripheral circumstance *with relevant examples*, predicts a further phase of exemplification.

Illustrate *with relevant examples*.

Pr: material	Circ: Manner
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It is worth mentioning that the process *illustrate* involves an inherent participant: the Goal, which in this case has been ellipsed and needs to be retrieved from the previous clause in the task instructions. In other words, there is a 'gap' to be filled with previous wordings -in this case what is to be illustrated is the similarities and differences between endophoric and exophoric reference-. Bridging this gap requires an inferential process from the students-readers so as to produce an effective response. Besides, the students are also assumed to know that the social process of knowledge demonstration they are engaged in entails the ability to establish relationships between concepts and concrete examples, for which an elaboration phase is expected to be included in their texts.

The Theme analysis of both clauses in the procedure is also revealing. The element that is given thematic status in the first clause is the Wh- word, which carries interpersonal and experiential meaning simultaneously. That is, the Theme of the first clause signals that a response is expected, and at the same time, as a participant in the transitivity structure, it indicates that the point of departure of the message is something to be defined.

What are the similarities and differences between endophoric and exophoric reference?

Theme: interp. & unm. topical	Rheme
---	--------------

The second clause, in turn, thematizes the process, which is an unmarked choice in imperative mood clauses, anchoring the message on the requested verbal service.

Illustrate with relevant examples.

Theme: unm. topical	Rheme
-------------------------------	--------------

The analysis of the three layers of meaning coded in the structure of the clauses that realize the procedure has revealed that the expected genre is a descriptive report. As already mentioned, that type of report prototypically unfolds through two stages: Classification ^ Description. So far, we have mentioned the expected phases within the Description stage -similarities, differences, exemplification and elaboration of the examples- but nothing has been said about the Classification. Is this typical initiating stage expected in this case? From my perspective, not necessarily as the information to be potentially included in this stage has already been mentioned in the task instructions. That is, a potential Classification stage in the response would refer to the existence of commonalities and differences between endophoric and exophoric reference and, as that is information already mentioned in the instructions, it may be omitted. This is so because, as the responding move is complementary to the initiating one, it can afford to be elliptical as long as the negotiated content can be recovered from the previous move (Martin & Rose, 2007: 223). So in those texts in which the Classification stage is omitted the task instructions will be taken to perform this function.

In line with the analysis above, the expected schematic structure of the response was:

stages: (Classification) ^ Description

phases: similarities ^ differences ^ examples ^ elaboration of examples

Text N°	Expected schematic structure						Others	
	stages	(Classification)	Description					
	phases		similarities	differences	examples	elaboration		

Since genres are not fixed, formulaic activities (Macken & Slade, 1993; Martin, 1993, 1994), some degree of variability was expected in relation to the predicted schematic structure of the texts. Apart from the optional realization of a Classification stage, it was speculated that additional stages might be included in some texts for the sake of expansion of certain meanings. Phase sequencing was also expected to have alternative realizations, for example:

similarities ^ examples ^ elaboration ^ differences ^ examples ^ elaboration

differences ^ similarities ^ examples ^ elaboration

differences ^ examples ^ elaboration ^ similarities ^ examples ^ elaboration

The metafunctional analysis carried out in the clauses that realize the task instructions shows how they determine and restrict choices in the second move in terms of expected compositional features. Closely related to this aspect is the organization of information within the clauses that realize the response text, which is also predictable from the analysis above. As the thematic structuring of clauses contributes to the generic scaffolding of the text, it can be anticipated that the expected thematic selections will be those that signal analogy or contrast between the described participants. In other words, we can anticipate that adequate responses will contain Themes that build up a method of development through comparison and contrast (Fries, 1983: 133). We do not mean, however, that other participants will not be found in Theme position or that thematized participants other than the ones predicted¹⁰ will be disruptive. What we intend to point out is that these predictive thematic patterns are useful reference points against which to assess selections in the response move and also that choices which contradict or do not fulfill this prediction should be carefully looked at, as they may either interrupt textual continuity or signal a generic scaffolding that is not the one indicated in the task instructions.

The predictable generic and thematic configurations that emerged from the metafunctional description of the instructions will be the grounds for the analysis and interpretation of the responses produced by students in the following sections.

3.3.2 Structural configuration of the response

3.3.2.1 Some obstacles encountered

In the description of the generic configuration of students' productions we encountered some obstacles related to both the identification of the overall purpose of the texts and the establishment of boundaries between textual phases. Concerning the first difficulty, there were some cases in which it was rather problematic to determine whether the response was actually a description of similarities and differences or rather a classification-description of each type of reference in turn (see for example Text 2 Appendix B). As for the identification of textual phases, the obstacles were

¹⁰ See Fries' concept of prediction mentioned on pp. 52

mainly caused by problems related to the grammatical configuration of the messages that realized the responses, an issue that is addressed in the sections on thematic selections. One recurrent difficulty was the unskillful use of relational structures in which one of the participants was not fully realized in the structure of the clause, resulting in most of the cases in awkward phasing. More specifically, this happened in cases in which the Token in the transitivity structure of the clause referred to the differences between endophoric and exophoric reference but the Value, whose function is to refer to the same thing, did not fully account for those differences.

Let's take the following opening line as an example:

The difference between endophoric and exophoric reference is that endophoric reference is the one found inside the text.

This example illustrates that the Value, realized by the nominalization *that endophoric reference is the one found inside the text*, does not account for the difference between both types of reference but rather refers to the context of retrieval of one of the types. In other words, the fact that the identity of endophoric reference forms can be retrieved within the text does not equal the difference between the endophoric and exophoric reference. As a result, the texts that display these types of constructions unfold in what seems to be rather awkward phases of differences or oppositions. This is shown in the full text below:

Description	<i>The difference between endophoric and exophoric reference is that endophoric reference is the one found inside the text.</i>	phase 1: difference
	<i>For instance, in the text when it says: 'It seems to get at the causes', it refers back mindfulness might be really important.</i>	phase 2: example elaboration
	<i>Also, in the text when it refers to the decline of cognitive control. 'This happens among healthy adults'. This refers back to the decline noticeably in the 70s and 80s.</i>	phase 3: example elaboration
	<i>On the other hand, exophoric reference is the reference that cannot be tracked in the text but outside of text.</i>	phase 4: difference
	<i>For example, in the text in the first paragraph the author writes: 'the X-box'. This is an element that has no referents present in the text but that can be inferred from everyday life or the general knowledge of the technological world. (Text 45)</i>	phase 5: example elaboration

These phases may be also seen as functional components that describe each one of the types of reference in turn. What seems to determine their interpretation as differences is ultimately the explicit presence of the participant *difference* selected as the Token in the structure of the first clause.

The text above serves to illustrate the importance of complementing the analysis of the schematic structure of texts with an analysis of the structural configuration of the messages that realize them and their contribution (or not) to the creation of stages and phases. Besides, it also serves as an example for the methodological decisions taken in relation to the identification of exemplification and elaboration as the same or different textual phases. The example illustrates the case of exemplification and elaboration as part of the same textual phase, an identification criterion that was based the grammar of clauses: the example and the elaboration are part of the same grammatical structure -phase 2- or they are 'taken to be' part of the same structure -phases 3 and 5, in which the examples are realized by fragments and the elaborations interpreted as what should have been a constituent in that incomplete structure-. It derives from this that examples and elaborations that are realized through different lexicogrammatical configurations are identified as separate phases.

3.3.2.2 General findings¹¹

An analysis of the compositional structure of the responses shows that many of the texts in the corpus do not display the expected structural configuration, which reveals the existence of obstacles in the successful achievement of the goal of the activity. Whereas 27 out of 51 texts contain the functional components determined in the task instructions, that is, similarities, differences, examples, elaboration, the other 24 texts fail to do so (see Appendix A, tables 1 & 2).

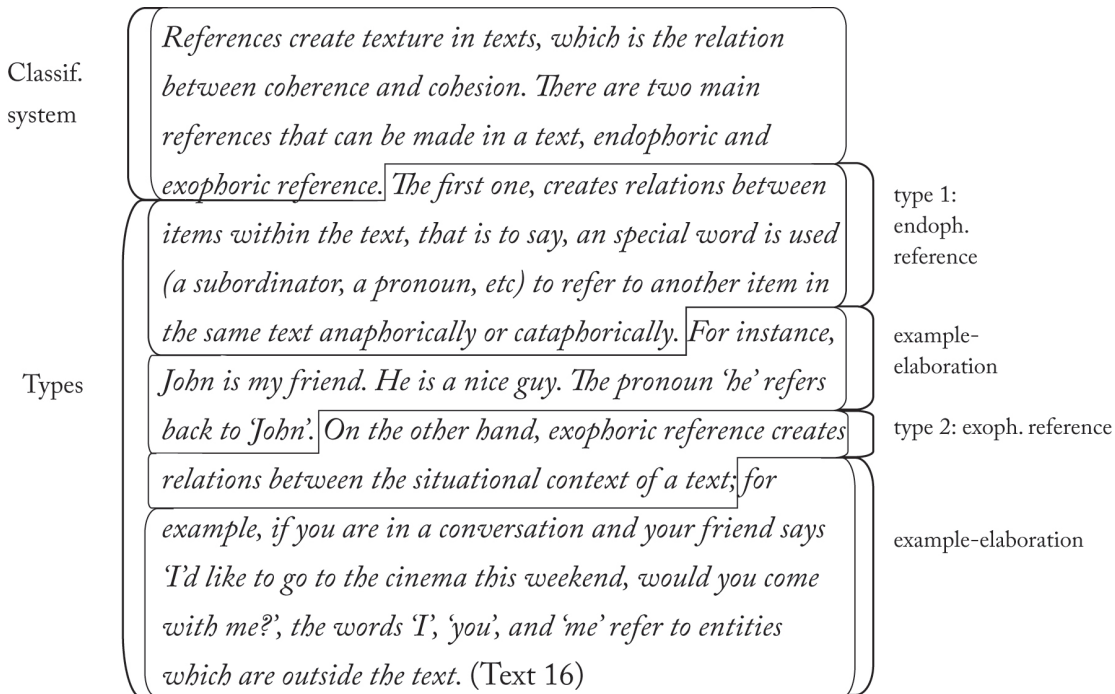
Within the texts that do not display the predicted compositional structure, some recurrent patterns can be identified.

- a. Description of similarities and differences without exemplification and/or elaboration

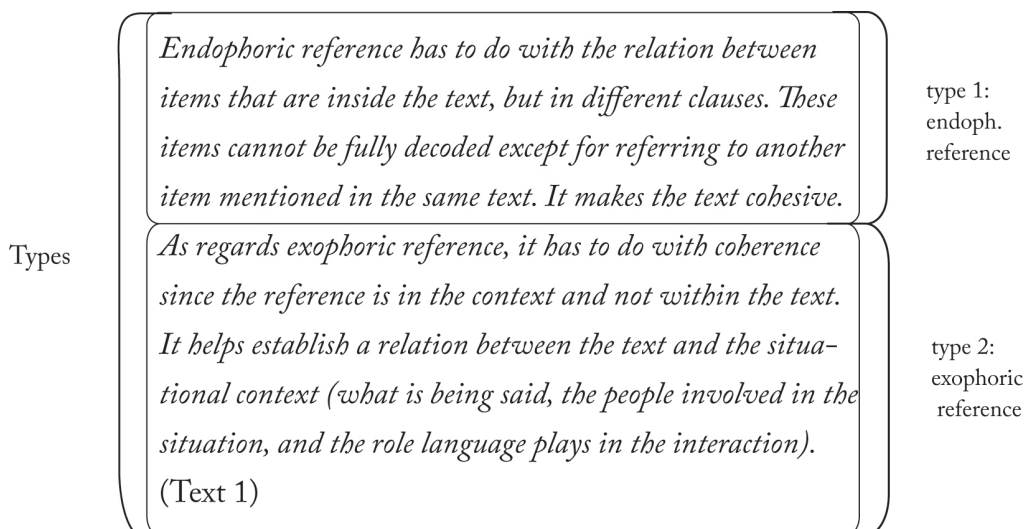
Classification	<i>There are some similarities and differences between endophoric and exophoric references. Both endophoric and</i>	similarity
Description	<i>exophoric do not have a meaning on their own right, so the reader will have to retrieve the referent in the surrounding text in the case of endophoric reference and in the case of exophoric reference, the reader may have to retrieve the referent from the situational context. (Text 12)</i>	difference

¹¹ As was anticipated, the expected phases were developed in alternative orders. However, no special reference will be made to these alternative orderings of functional components.

b. Classification of endophoric and exophoric reference as different types of the same phenomenon instead of description of similarities and differences between them:



c. Classification of types of reference and lack of elaboration and/or exemplification :



d. Failure to describe similarities/differences between endophoric and exophoric reference:

Description	<i>The difference between endophoric and exophoric reference is that endophoric reference is the one found inside the text.</i>	difference
	<i>For instance, in the text when it says: 'It seems to get at the causes', it refers back mindfulness might be really important.</i>	example elaboration
	<i>Also, in the text when it refers to the decline of cognitive control. 'This happens among healthy adults'. This refers back to the decline noticeably in the 70s and 80s.</i>	example elaboration
	<i>On the other hand, exophoric reference is the reference that cannot be tracked in the text but outside of text.</i>	difference
	<i>For example, in the text in the first paragraph the author writes: 'the X-box'. This is an element that has no referents present in the text but that can be inferred from everyday life or the general knowledge of the technological world. (Text 45)</i>	example elaboration

The following table summarizes the description of the compositional structure of the texts in the corpus:

Texts with expected functional components			27
Texts without expected functional components	a. No examples/elaboration	9	24
	b. Classification of endophoric/exophoric reference with examples/elaboration	11	
	c. Classification of endophoric/exophoric reference without examples/elaboration	2	
	d. No similarities/differences	2	

Table 3.1 Compositional structure of responses

The most recurrent problems observed in the structure of the response are: (i) the generic configuration of the move as a classification of types of reference -endophoric and exophoric- instead of a description of their similarities and differences (b & c in table 3.1), and (ii) the absence of phases of exemplification and/or elaboration of examples (a & c¹² in table 3.1). Although all

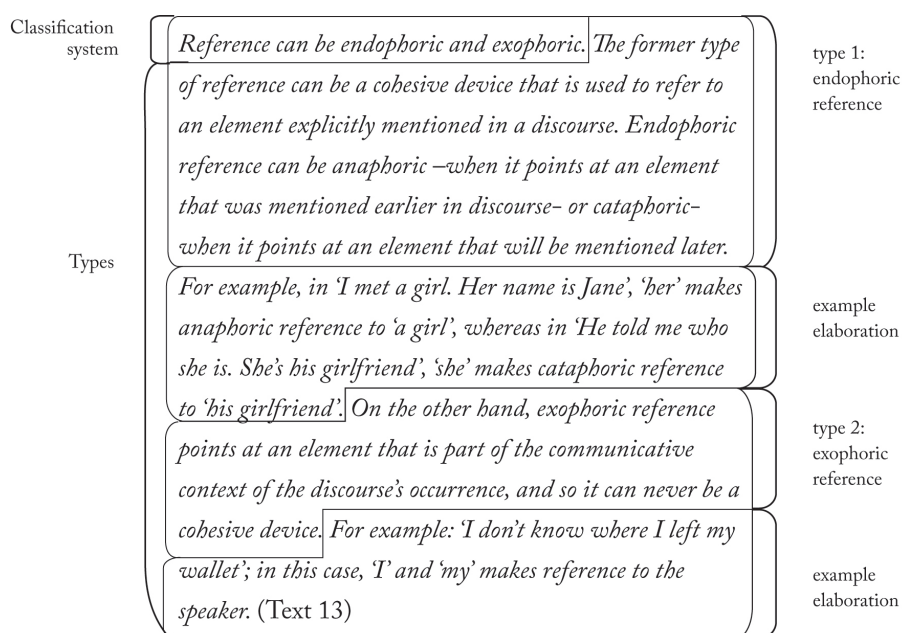
¹² The texts in c are mentioned twice as they contain both problems: they are classifying reports and they lack exemplification and/or elaboration phases.

these responses fail to display the expected phases, they seem to pose obstacles of a different nature. Whereas the lack of exemplification is detrimental to the process of knowledge demonstration, the failure to address the aspects required in the task instructions also renders the text incoherent or at least problematic, and requires a greater effort on the part of the reader to make sense of the students' texts as a response to the task instructions.

Classifying report: an unexpected genre

The presence of classification phases of endophoric and exophoric reference in some responses¹³ raises the issue of coherence. In these cases there seems to be an interruption of textual continuity, as the development of a classifying report in the task response counters the expectations created in the instructions. As has already been mentioned, although the task instructions do demand information about endophoric and exophoric reference, they determine at the same time the organization of this information into aspects that both types of reference share and features that distinguish one from the other. Therefore, the responses that taxonomize endophoric and exophoric reference and describe features of each one of the types in turn produce a sense of discontinuity or textual incoherence. In other words, since the task instructions demand a descriptive report about similarities and differences and the response is a classifying report about types of reference, there seems to be no unity between these two moves in the exchange.

Many of the answers that present this structural configuration show conceptual accuracy and seem to be coherent if they are read as texts in their own right and not as part of an interaction. The response below, for example, classifies reference into endophoric and exophoric and describes each one of the types, providing relevant examples and elaborating on them:



¹³ See Appendix B.

Although this production presents an accurate conceptual development, it turns out to be problematic when read as a move in the task instructions-task response exchange, which, as has already been stated, is a semantic unit and thus needs to be considered as a whole. From this perspective then, texts whose responses classify and describe endophoric and exophoric reference look rather incoherent as there seems to be no continuity between the moves. This becomes more noticeable if task instructions and response are read together:

What are the similarities and differences between endophoric and exophoric reference? Illustrate with relevant examples.

Reference can be endophoric and exophoric. The former type of reference can be a cohesive device that is used to refer to an element explicitly mentioned in a discourse. Endophoric reference can be anaphoric –when it points at an element that was mentioned earlier in discourse– or cataphoric– when it points at an element that will be mentioned later... On the other hand, exophoric reference points at an element that is part of the communicative context of the discourse's occurrence, and so it can never be a cohesive device...

As the task instructions revolve around similarities and differences and the response classifies endophoric and exophoric reference, there is an interruption in the textual continuity, which renders the text problematic.

On the role of the classification stage

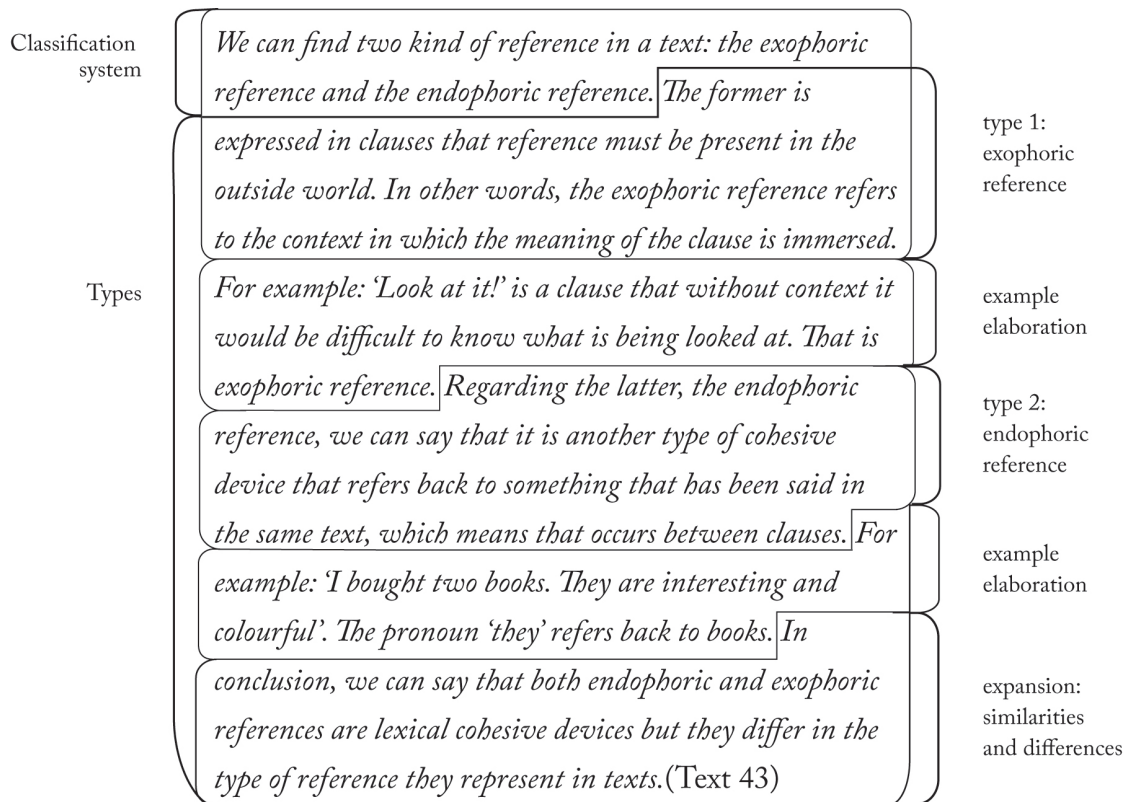
Whereas in the expected responses about similarities and differences the presence of a classification stage seems to be optional and appears not to make any difference, its occurrence in responses that classify endophoric and exophoric reference seems to have a particular impact. The instructions *What are the similarities and differences between endophoric and exophoric reference* presuppose the existence of commonalities and differences between both types of reference and may thus be taken as a form of classification. Therefore, no relevant difference is perceived between descriptive reports that include a classification stage¹⁴ and those that do not¹⁵. In contrast, the inclusion of a classification stage in the responses that classify reference as endophoric and exophoric appears to have an impact on the texture of the texts.

The classifying reports that start with a classification stage, like text 13 above, seem to be more problematic since the expectation of similarities and differences as structural components is straightforwardly contradicted. That is, the reader expects the description of similarities and differences between two types of reference but instead gets a classification of these types (for similar cases see texts 16, 20, 25 and 51 in Appendix B section I).

¹⁴ See Appendix E section I.

¹⁵ See Appendix E section II.

There are other cases in which the presence of a classification stage, which always highlights the taxonomic organization of the response, backgrounds the description of similarities and differences, which is included as a final phase of expansion¹⁶. This situation is illustrated in the following text:



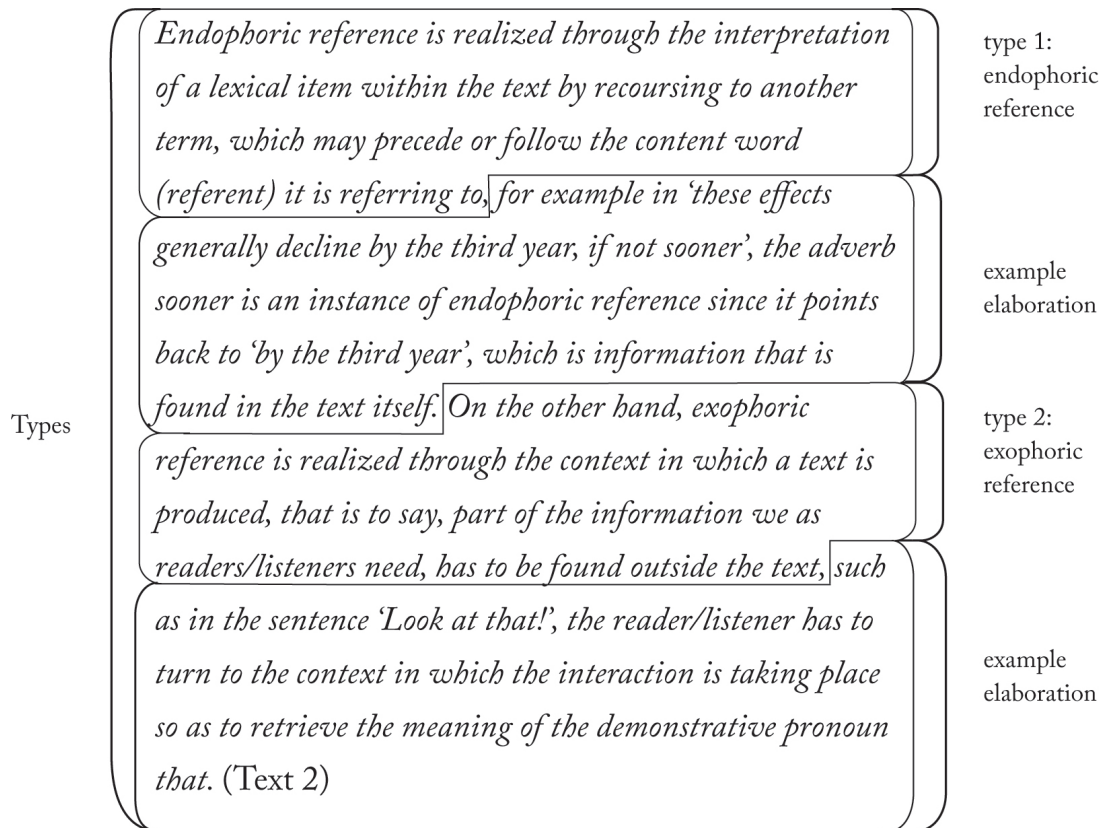
As can be seen in the previous example, the response is to be read as a classifying report, the description of similarities and differences being added as a final remark.

In the cases mentioned above, the classification stage seems to interrupt textual continuity, thus making the text problematic. However, the responses that unfold around endophoric and exophoric reference (classifying reports) which lack that stage also look discontinuous. This can be seen in the following example¹⁷:

¹⁶ See text 41 Appendix B- section I for a similar example.

¹⁷ See Appendix B section II for more examples.

What are the similarities and differences between endophoric and exophoric reference? Illustrate with relevant examples.



Even lacking a classification stage, the response above describes each type of reference in turn, without explicitly referring to similarities and differences. It is the teacher-reader, then, who has to reconstruct the text as a response to the task instructions in order to give unity to the text. Because the reader is acquainted with the field of study, he/she will be able to detect within the description of endophoric and exophoric reference the features that both types share and the ones that make them different. In the text above, for example, it is possible to reconstruct both similarities and differences. On the one hand, both endophoric and exophoric reference are described as presuming reference forms: *endophoric reference points back to...; exophoric reference...the reader/listener has to turn to the context...to retrieve the meaning of the demonstrative pronoun that*; on the other hand, different contexts of retrieval of the identity of the reference form are mentioned: *...endophoric reference ... points back to ..., which is information that is found in the text itself; ...exophoric reference ... part of the information we as readers/listeners need has to be found outside the text....* It could be argued then that what is required in the task instructions, or at least part of it, can be found in the response and that there is some kind of contrast present in the text. However, a vital part of the task needs to be carried out by the reader-teacher, who is forced to make the inferences and adjustments needed in order to turn the text into an adequate response.

An interpretation of the development of unexpected stages and phases

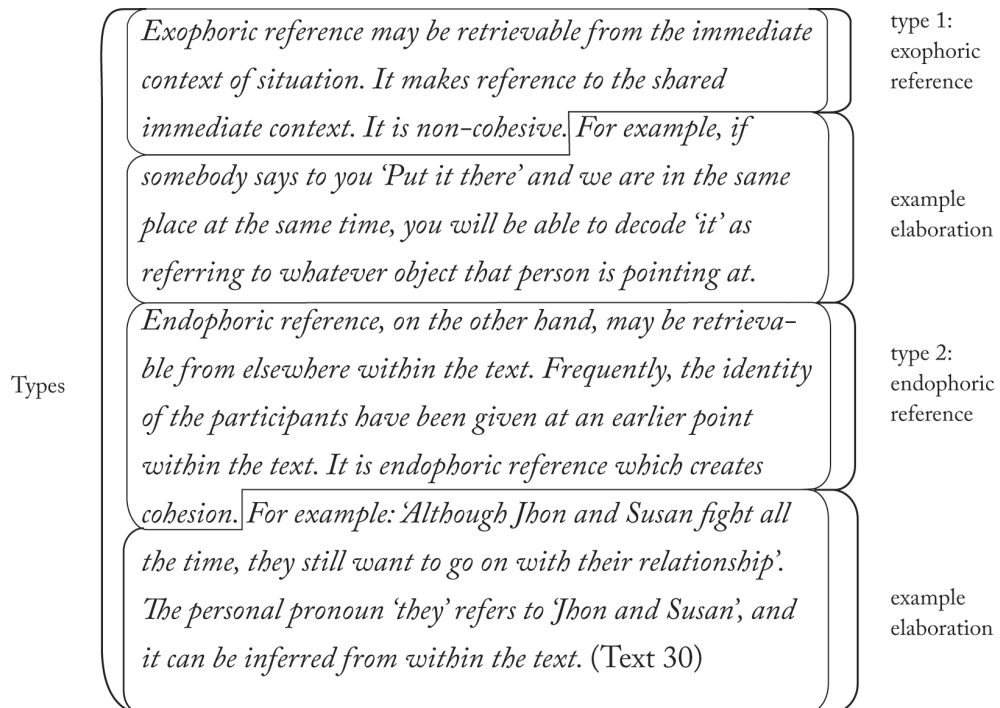
The development of unexpected phases of endophoric and exophoric reference in the response may be related to potential difficulties of different nature: the cognitive challenges presented by the grammatical configuration of the task instructions and also the complexity of the cognitive mechanisms required to manipulate conceptual knowledge so that it becomes an adequate response to those instructions.

The first obstacle might be the inability to deconstruct the grammatical configuration of the task instructions to work out the demands it imposes in relation to the field to be developed in the response (what) and its structural organization (how). One of the possible motivations for the inclusion of phases of endophoric and exophoric reference instead of the discussion of commonalities and differences is that students might be focusing on the semantic core of the task instructions, expressed by the Thing in the transitivity structure of the clause, disregarding the information about the required structural configuration of the response indicated by the Head of the nominal group¹⁸. However, one could speculate that the obstacle some students face is not only task comprehension but also the difficulty or inability to follow the logical steps required to produce an adequate response that constitutes a unified whole with the task instructions. That is, students seem to manage to describe features of endophoric and exophoric reference, but they fail to organize them around similarities and differences, for which they should be able to compare those features, group them and reorganize them in the text they produce. All these cognitive mechanisms are implied in the task instructions and students should be able to activate them to produce effective texts.

An analysis of the organization of experiential meanings in the responses that unfold in phases of endophoric and exophoric reference reveals some recurrent patterns. The texts that display these phases¹⁹ instead of similarities and differences tend to mention certain descriptive features first in relation to one type of reference and then in relation to the other. That is, in general terms, the responses that develop classifying reports characterize each one of the types of reference in turn, focusing on different descriptive aspects: the nature of the phenomenon, the location of the referent, their realization and the relationship between them and cohesion in texts. It is important to point out that most of students' responses fail to make reference to all these descriptive categories; rather, most of them tend to make reference to the nature of the phenomenon and the context of retrieval of the presumed participant. Besides, these descriptive categories are generally not explicitly labeled, but should be inferred by the reader. The following classifying report illustrates the organization of experiential meanings mentioned above:

¹⁸ See section 3.3.1 for the transitivity structure of the clauses in the task instructions.

¹⁹ See texts in Appendix B sections I & II.



A schematic representation of the experiential meanings in this text is shown in the following table:

Phenomenon	Exophoric reference	Endophoric reference
Descriptive category		
Nature of the phenomenon	(points to) retrievable participants	(points to) retrievable participants
Location of the referent	situational context	textual context
Realization	(pronouns) ²⁰	pronouns ,
Contribution to cohesion	-	✓

Table 3.2 Schematic representation of experiential meanings in Text 30

The table above shows that this text somehow contains the experiential meanings expected -features of endophoric and exophoric reference-. However, what appears to be the problem in cases like this one is that students fail to structure the conceptual knowledge so that it can be read as a response to the task instructions. Since the conceptual knowledge (or at least part of it) is present in these texts, it is the teacher-reader who has to carry out this restructuring process in order to give coherence to the texts produced by the students.

²⁰ Exemplified but not labeled.

In these responses students seem to be going through a first step in the process of elaboration of their texts: listing features of each type of reference. But, as mentioned before, further steps are essential in order to obtain an appropriate response to the task instructions: comparing those features and grouping them into the ones that are similar and the ones that are different. The following chart illustrates this missing process:

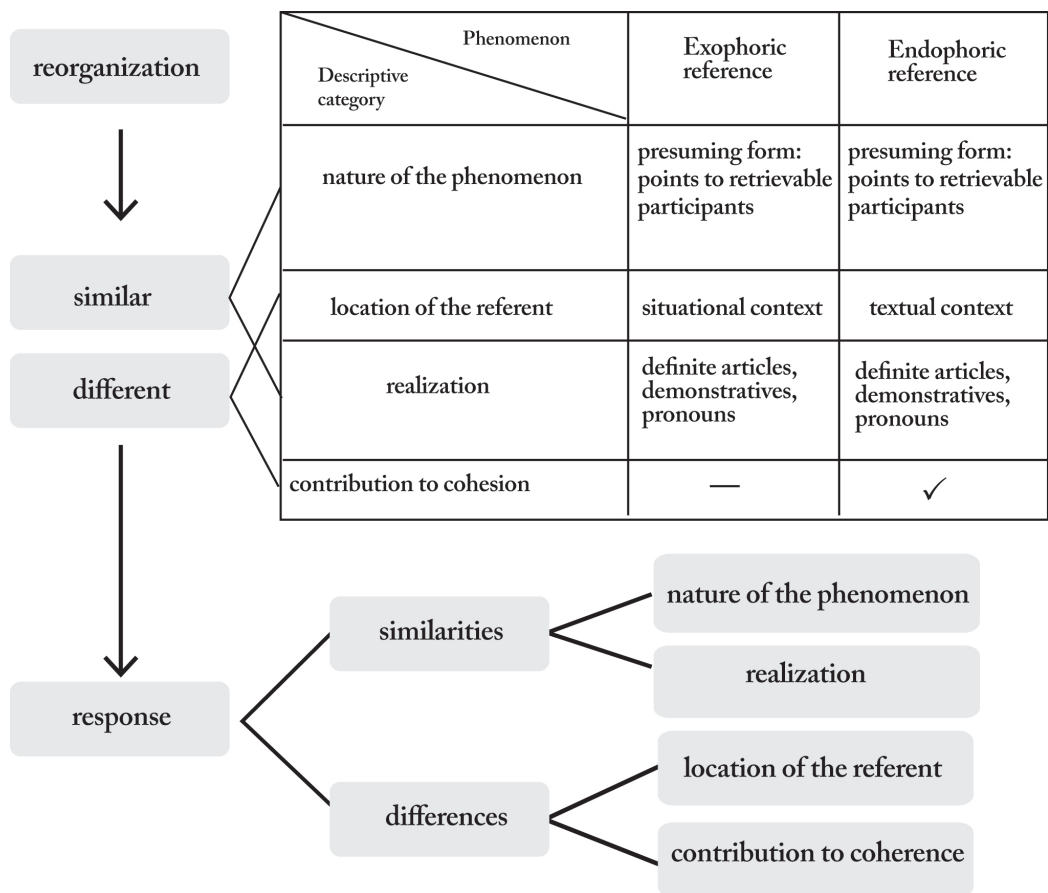


Chart 3.1 The process of turning a list of features into an appropriate response.

This process of reorganization of the descriptive features of the phenomena under analysis seems not to have preceded the students' responses. And this lack of reconfiguration of the experiential meanings in the texts deprives them from their continuity with the previous move in the exchange- the task instructions. Thus readers searching for coherence will have to carry out this reorganization of features themselves readjusting the meanings to adapt them to the requirements of the task instructions.

Absence of exemplification or elaboration phases²¹

The absence of exemplification and elaboration phases in descriptive reports about similarities and differences²² does not directly obstruct the conceptualization process. However, it harms the overall effectiveness of texts, whose goal is to demonstrate acquired knowledge. Apart from developing relevant theoretical aspects of a restricted field, students are expected to show a thorough conceptual understanding, for which the ability to illustrate abstract concepts with concrete examples and to elaborate on the relationship between the examples and the previous conceptualizations is of great importance and thus generally required. In the texts under study in particular, examples are explicitly required and they are thus an expected phase whose absence creates a sense of incompleteness in the response.

The following examples show three texts with overall accurate conceptual developments²³, which differ in the degree of achievement in relation to illustration and exemplification. Whereas the first text contains all the expected phases, the second one lacks the elaboration phase and the last one misses out both exemplification and elaboration phases.

Example 1

Description	<i>Endophoric as well as exophoric reference are resources that have the function of adding unity to the text. In both cases we need to resort to something else rather than the reference</i>	similarities
	<i>item to fully understand the meaning of it. In the case of endophoric reference, the referent is in the text as in the case 'Paul is a very good friend. He always listens to me'. (Reference: he, referent: Paul).</i>	difference example elaboration
	<i>In contrast, exophoric reference is the kind of reference in which we have to resort to something which is outside the text in order to get the complete meaning of the reference word.</i>	difference
	<i>In the following example 'I love cooking' the pronoun 'I' makes reference to the writer of the message and in order to make sense of it we need to resort to the outside of the text. (Text 42)</i>	example elaboration

²¹ For lack of exemplification/elaboration in classifying reports see Appendix B Section I, text 51, and section II text 1.

²² Most of the texts (9 out of 12) lack both phases. See Appendix C.

²³ Grammatical problems have been overlooked.

Example 2

Classification	<p><i>Reference is one of the cohesive devices used by grammatical cohesion to create unity and uniformity in a text. Reference can be either endophoric or exophoric.</i></p>	
Description	<p><i>Both share a relation of identity, that is to say, the grammatical item that performs these functions refers to another item, and the reader must retrieve the latter to find out the identity of the former.</i></p>	similarity
Description	<p><i>It is 'where' the reader needs to go to find out this identity that makes the difference. While in endophoric reference, the referent is within the text, in exophoric reference the referent is outside or in the surroundings of the text.</i></p>	difference
	<p><i>To illustrate these ideas we can take into account the following examples: 'Paul bought a house. It is beautiful'. 'Things are difficult at home now'. (Text 22)</i></p>	example

Example 3

	<p><i>Both endophoric and exophoric reference help the writer to make a text coherent; that is, to provide semantic ties which result in a unified whole.</i></p>	similarity
Description	<p><i>However, they vary greatly in terms of the referents they stand for. In the case of endophoric reference, it points to elements that are mentioned in the text, either anaphorically or cataphorically. Furthermore, endophoric reference not only provides coherence to the text but also cohesion, since it helps create a semantic unity, and at the same time it provides linguistic ties between the different participants that appear in a text. On the other hand, exophoric reference points to elements outside the text, that is, elements that are part of the situational context. Consequently, it cannot be considered as a cohesive resource, because it doesn't create linguistic unity between the elements along the text. (Text 39)</i></p>	difference

In the successive reading of the texts, the degree of goal achievement decreases. The first example -text 42- describes similarities and differences between both types of reference, provides examples that illustrate both the different contexts of retrieval and the fact that in both cases there is a presumed identity, and elaborates particularly on one of them, explaining why it necessary to rely on the context of text production to retrieve the full identity of the reference form used. On the other hand, the second example -text 22- provides conceptualizations about commonalities and differences and introduces two examples but fails to specify the relationship between the example and the theory. In this case, it is the reader who becomes responsible for establishing the missing link so as to make sense of the example. Even though the examples are accurate, the teacher has to provide information that the student is expected to give as part of the process of knowledge demonstration. Finally, the last example -text 39- lacks a reference to concrete examples to illustrate the concepts introduced in the first two phases, and thus fails to fulfill one of the demands of the task instructions, which explicitly require exemplification.

The absence of exemplification and elaboration phases might be attributed to reasons such as deficient generic knowledge or inability to relate abstract concepts to concrete examples. It is possible that some students lack an understanding of the purpose of this communicative situation, which is to demonstrate knowledge and whose achievement always involves going beyond mere knowledge reproduction. Diverse reasoning mechanisms such as exemplification, elaboration, restatement, among others are predictable phases in students' texts, independently of whether the task instructions demand the description, classification or explanation of a phenomenon. Another complex aspect involved in the production of these texts is the nature of the interaction between the participants. As we have already mentioned, this is a co-constructed text in which the teacher, besides being the producer of the task instructions, is the addressee of the text as a final product. What might be problematic is that the participant that makes the demand does not do so because he/she lacks information but because he/she needs to assess knowledge acquisition. And if the student-text producer does not take this into consideration and only focuses on the fact that the addressee is acquainted with the information that is being conveyed, he/she might consider, whether consciously or not, that exemplifying or illustrating conceptual knowledge is not necessary for the reader to understand it.

On the other hand, there may be cases in which students are acquainted with these needs, and even so they lack the necessary skills to link up the theory with concrete examples or to elaborate on the examples they introduce so as to show how those specific instances illustrate the concepts developed. Providing definitions, classifications and descriptions is not new to most of the students, nor is the elaboration of examples to illustrate a particular conceptual domain. What seems to be at stake here is the ability to move fluently between these two poles. Going from abstraction to concreteness or departing from an instance to make generalizations are mechanisms that require a thorough conceptual understanding of the disciplinary field under study, an issue that becomes even more challenging when it comes to conceptualizing about the complex semiotic system of language.

Inaccurate or insufficient examples and elaboration

Many students seem to have an understanding of the need to include exemplification and elaboration phases in their responses. In fact, 39 out of the 51 texts in the corpus show these phases (see table 3.1 above). Even so, there are some cases in which these phases are inaccurate. In the following text, for example the elaboration is partially inaccurate, as it accounts only for one of the reference forms mentioned.

...For instance, the sentence 'I love apples. We bought one kilo of them in the market yesterday' represents a case of endophoric reference since the pronoun 'them' refers back to 'apples' and the pronoun 'we' points outside the text not clearly stating which is the referent. (Text 36²⁴)

Although there is a case of endophoric reference (*them*), there is also an instance of exophoric reference (*we*), which is not labeled as such and therefore seems to be understood as a form of endophoric reference.

What stands out in most of the cases in which these phases are included is the apparent inability to illustrate and relate examples to the theory thoroughly. There seems to be a sense of incompleteness, either in the exemplification or in the elaboration of the examples (and in some cases in both), which leaves too much work for the reader. That is, the insufficient exemplification, and mostly the brief and limited relationships established between the examples and the theoretical description requires an effort on the part of the reader, who is confronted with the need to establish the missing links. This is also shown in the following examples:

Example 1

...The difference between endophoric and exophoric reference is that there is endophoric reference when the elements are within the text (I bought a car. It is green) while exophoric reference refers back to an element outside the text (I'm going to read a good book). (Text 14²⁵)

Example 2

...As regards the differences we can say that endophoric reference can be cohesive or non cohesive; for example, 'I bought a shirt for tonight party. It is red.' (cohesive) and 'the car of my neighbor is brand new' (non-cohesive) while exophoric reference is always non-cohesive; for example, 'The storm has passed and the airports are now open' we can retrieve the referent 'now' from the context, which makes it non-cohesive. (Text 46²⁶)

²⁴ Full text in Appendix E- section I

²⁵ Full text in Appendix E- section II

²⁶ Full text in Appendix E- section I

Example 3

...Endophoric and exophoric reference are similar in the sense that both can be expressed with pronominal, demonstrative and comparative references. For example, 'I have two siblings, those kids always make my day', and 'I love those paintings!' (Text 44²⁷)

The first text provides two examples that illustrate the difference between endophoric and exophoric reference in relation to the context of retrieval of the identity of the reference form. However, although the reference form is underlined and can therefore be identified, nothing is said about the referent, which creates a gap that the reader needs to fill in. On the other hand, the second text refers to the difference between endophoric and exophoric reference in relation to the property of cohesion, and then presents examples to illustrate this difference. But whereas the example of the non-cohesive nature of exophoric reference is explained, nothing much is said about the cohesive and non-cohesive examples of endophoric reference, so it is the reader that has to work out why the first case is an example of cohesion whereas the second one constitutes a non-cohesive form of endophoric reference. The examples in the last text are supposed to illustrate the similar realization of endophoric and exophoric reference through pronominal, demonstrative or comparative forms. However, two problems can be observed in this case: comparative reference is not illustrated, as the examples contain only instances of pronominal and demonstrative reference (I, my, those), and again it is the reader who has to work out what counts as a case of reference.

Absence of similarity or difference phase

There are two cases in which either the phase of similarity or the phase of difference is absent in a text. In both responses, although the missing information may be somehow retrievable for a knowledgeable reader, it is not really developed as such in the texts.

This is shown in the following text, which lacks the similarity phase²⁸:

It may be possible for the reader to reconstruct what the similarity between both types of reference

²⁷ Full text in Appendix E- section I

²⁸ The text missing the difference phase can be found in Appendix D

Description	<i>The difference between endophoric and exophoric reference is that endophoric reference is the one found inside the text.</i>	difference
	<i>For instance, in the text when it says: 'It seems to get at the causes', it refers back mindfulness might be really important.</i>	example elaboration
	<i>Also, in the text when it refers to the decline of cognitive control. 'This happens among healthy adults'. This refers back to the decline noticeably in the 70s and 80s.</i>	example elaboration
	<i>On the other hand, exophoric reference is the reference that cannot be tracked in the text but outside of text.</i>	difference
	<i>For example, in the text in the first paragraph the author writes: 'the X-box'. This is an element that has no referents present in the text but that can be inferred from everyday life or the general knowledge of the technological world. (Text 45)</i>	example elaboration

is, as the description of the differences between them mentions the fact that participants should be tracked - though rather inaccurately in the case of endophoric reference - : ...*endophoric reference is the one found inside the text...*;... *exophoric reference is the reference that cannot be tracked in the text but outside of text...* However, the description of features that endophoric and exophoric reference share is not explicitly addressed, and therefore missing as a phase in the response.

Texts with expected phases

It is necessary to point out that the presence of the expected phases²⁹ of similarities, differences, examples and elaboration does not guarantee the accuracy of the response and therefore its success in the achievement of the activity goal. In fact, some of the texts that do display the expected structural configuration fail to develop precise conceptualizations. This issue, which is related to the ideational component of language, is not the object of study here. However, an analysis of the accuracy of the taxonomic and nuclear relations³⁰ established in the texts in the corpus might provide interesting data and prove an insightful complementary study to the present one.

3.3.3 From text to clause

The analysis of the compositional configuration of the responses has shown recurrent problems related to the organization of information that harm the successful achievement of the overall purpose of the texts. The most visible difficulties are inappropriate generic choices and absence of

²⁹ See Appendix E.

³⁰ See Martin (1992), Martin and Rose (2007).

phases, mainly of exemplification and elaboration of examples, which are typically expected in this type of discourse involving knowledge demonstration and are moreover explicitly asked for in this case. As predicted, the anticipated phases are rather flexibly positioned in different texts, mostly examples and elaborations, which are placed variably after phases of similarities or differences or at the very end of the texts. Even so, there seems to be no strategic manipulation of this flexibility for effective text construction.

So far the focus has been on the compositional structure of students' texts in relation to the task instructions. This global aspect of textual organization is followed in the next section by the analysis of the organization of information at a more local level: the clauses that realize the texts in the corpus. The analysis focuses on the relationship between the structure of clauses as messages and text coherence and cohesion. That is, the aim is to analyze the contribution of the thematic configuration of clauses to generic staging and textual unity. It is important to point out that the thematic selections in students' texts are also analyzed in relation to the task instructions which, being the first move in the exchange, predispose thematic choices. Besides, the textual context of the response itself is also considered to provide attributable sources for Theme selection in each individual text.

3.3.4 Thematic selections

3.3.4.1 Some obstacles encountered

Some problems in Theme identification derived from students' use of faulty grammatical structures, more specifically 'sentence fragments' or incomplete sentences. Most of those constructions did not technically count as units for thematic analysis because, lacking a predicator, they were not major clauses expressing mood and transitivity (Halliday & Matthiessen, 2014: 125). Even so, they were analyzed for Theme in the present study³¹, as the selected starting points in those constructions seemed to have an anchoring effect. It was also taken into account that the use of those incomplete structures, most of which were related to the introduction of examples in texts, was not a matter of choice but of language unawareness. The following are two examples of sentence fragments illustrating recurrent constructions in the corpus that were analyzed for Theme. Round brackets have been used to signal clause boundaries between the fragment and the subsequent clause, which has been transcribed to illustrate Theme identification in these cases. As the examples reveal the fragments are analyzed for Theme and the subsequent clauses -which are major ones- maintain their own thematic description:

- i. (*[For example]: I don't know where I left my wallet*); (*in this case, I and 'my' makes reference to the speaker*). (Text 13)

³¹ These Themes are identified with an asterisk (*) in Appendices G & H.

- ii. ([For instance], *John is my friend. He is a nice guy*). (*The pronoun 'he'* refers back to 'John'. (Text 16)

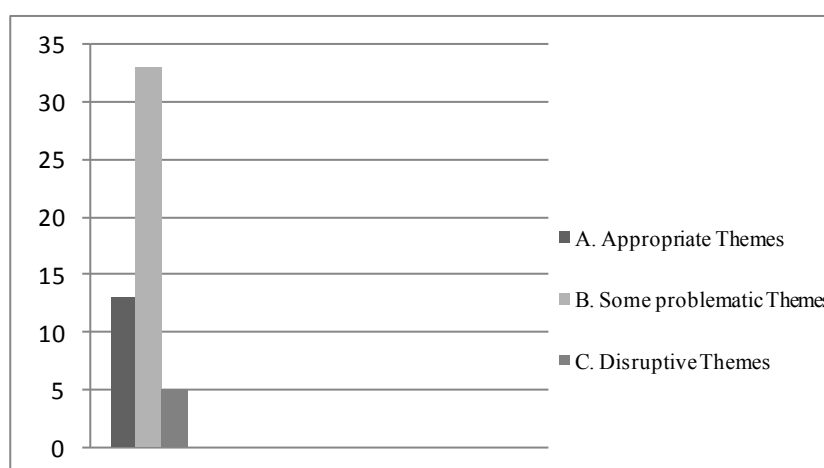
3.3.4.2 General findings

The role of thematic choices in textual continuity

An analysis of the thematic choices in the clauses that realize students' responses reveals common problems that result in an interruption of textual continuity. There are some texts in which the organization of information at clause level builds up textual phases that are not the expected ones according to the demands of the task instructions. In other cases, there are unmotivated or 'ruptured' Themes (Fontaine, 2013: 168) that affect textual cohesion as no attributable source for that thematic selection can be found in the text.

Although 13 of the texts in the corpus show appropriate thematic selections that contribute to the overall organization of information in the text, the other 38 display Themes that pose obstacles to the reader, though in varying degrees. Whereas most of the texts (33) present some problematic selections that interrupt the expected method of development -i.e. through comparison and contrast-, only five show thematic choices that are more disruptive, affecting textual coherence and therefore hindering the reading process.

The following graph shows the distribution of the texts in the corpus in relation to the degree of accuracy of thematic selection they display.



Graph 3.1 Accuracy of thematic selection

The analysis of texts with appropriate thematic selections is taken as the point of departure to show how predictable choices of Themes contribute to textual continuity. It is expected that the subsequent description of inappropriate thematic selections in problematic texts will become more visible against this background.

A. Appropriate thematic selections³²

These texts display predictable patterns of thematic selections, which scaffold the organization of information in the response. The beginnings of the clauses that realize these texts help to construct the predicted phases in this move, which are expected to be structured around similarities and differences. As has already been said, the task instructions anticipate further phases of shared and contrastive features between endophoric and exophoric reference, which the texts in this group successfully build through adequate thematic choices. This is shown in the two selected texts analyzed below. The clauses/clause complexes in the texts are numbered to ease identification.

1. Both endophoric and exophoric reference have some similarities and one difference. 2. As regards similarities, they give texture to texts. 3. They both use the same types of words to show reference 4. [and] they help us, as readers or listeners, to retrieve information. 5. The only difference they have is that endophoric reference refers to the elements within a text and exophoric reference refers to the elements outside the text, its context. 6. These two types of reference can be seen in the sentence 'We all need to protect the world as to live peacefully in it' where the personal pronoun 'we' stands for an element outside the text (we as human beings), and the personal pronoun 'it' points back to 'the world'.(Text 3)

In this case, the first clause -1-, which realizes the classification stage in the schematic structure of the text, carries in its Theme information about both types of reference together: *Both endophoric and exophoric reference*. But at the same time, it functions as a hyper-Theme, that is, as the Theme of the whole response. In other words, this clause, which somehow restates information provided in the task instructions, allows the reader to predict what the text will look like ahead, how it will unfold. What is expected is the description of some similarities and one difference between these types of reference and, as can be seen in the thematic selections presented in the following figure, the expectation is fulfilled: Themes 2, 3 and 4, which come after the hyper-Theme refer to similarities, while the Theme in 5 mentions differences.

³² See Appendix F.

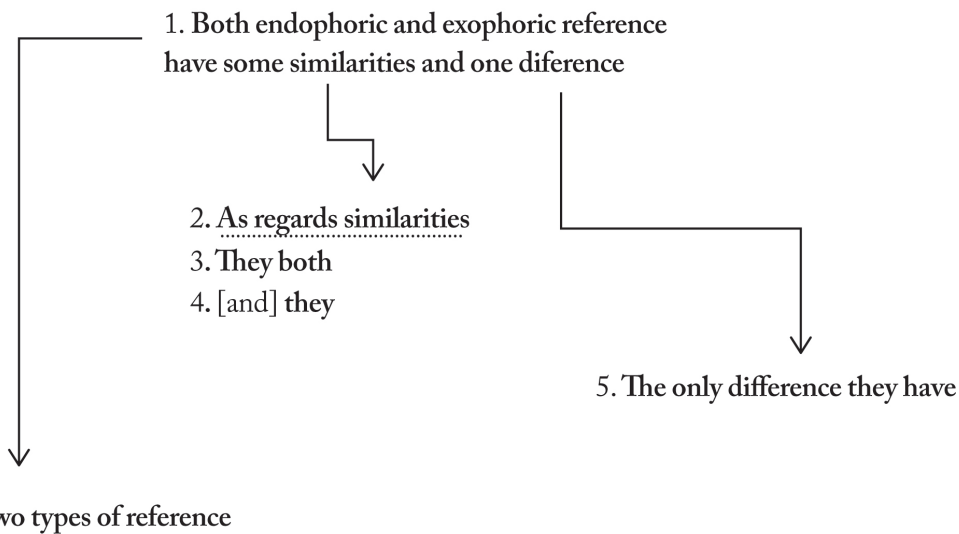


Figure 3.1 Patterns of thematic selection in Text 3

The three topical Themes that follow the first clause refer to similarities, whereas the fourth one mentions differences. The beginning of the similarity phase is signaled by the absolute Theme 2, *As regards similarities*, which has a focusing effect, followed by two unmarked topical Themes -3 and 4- that are about endophoric and exophoric reference regarded and identified together (*both*). On the other hand, the only topical Theme about differences, *The only difference they have* in 5, correlates with the announcement made in the hyper-Theme. There is a last topical Theme that refers to both types of reference, *These two types of reference* in 6, whose function is to introduce the exemplification phase returning to the Theme of the first clause. The patterns of clause Themes in the text above construct the predicted phases building up a visible method of development -through comparison and contrast- and thus fulfill the readers' expectations. This analysis illustrates the way in which appropriate selections related to this functional aspect of the clause contribute to textual continuity and shows the text producer's ability to organize information effectively.

In some texts the contrastive development of the response is construed through textual Themes realized by conjunctions, both cohesive and structural in this case, that explicitly link messages logically in terms of opposition:

1. *Both endophoric and exophoric reference* do refer to something else: a person, an action, a place, etcetera.
2. [However], *they* differ in the location of their referent.
3. *Endophoric reference* has its referent in the text (before: anaphoric, or after: cataphoric).
4. [whereas] *exophoric reference* points to something out of the text; a person, an action that exists in the context, in the communicative situation, and which has not been mentioned in the same text before.
5. [For example], *'That's my sister!'* refers to a girl who has not been

mentioned before. 6. [*But*] ***That's my sister. She lives abroad and has come on holiday*** is endophoric ('she') because she's been mentioned in the previous sentence. (Text 49)

As the logical relation of contrast is explicitly signaled in Theme position through the junctives *however*, *whereas*, *but*, the opposition between the messages becomes highlighted.

1. ***Both endophoric and exophoric reference***
2. [*However*] ***they***
3. ***Endophoric reference***
4. [*whereas*] ***exophoric reference***
5. [*For example*] ***'That's my sister!'***
6. [*But*] ***That's my sister. She lives abroad and has come on holiday***

These isolated Themes allow us to focus on the information that has been chosen as point of departure in each structural unit as a message. The selected Themes show three pairs of opposing statements: 1-2, 3- 4 and 5-6, in which oppositions are marked by the conjunctive adjunct *however*, the subordinator *whereas* and the coordinator *but*, realizing the textual Themes in each pair. The transcribed Themes clearly reflect the structure of the passage:

- In the first pair the topical Themes are co-referential, but the conjunctive adjunct *however* announces a contrast that will be introduced in the Rheme of the message: *both endophoric and exophoric reference* → [*However*] *they*.
- After that, an opposition is presented specifically in relation to each one of the types: *endophoric reference* → [*whereas*] *exophoric reference*.
- Finally, a contrast is established between two examples that illustrate the first two opposing ideas: [*for example*] *example of exophoric reference* → [*but*] *example of endophoric reference*.

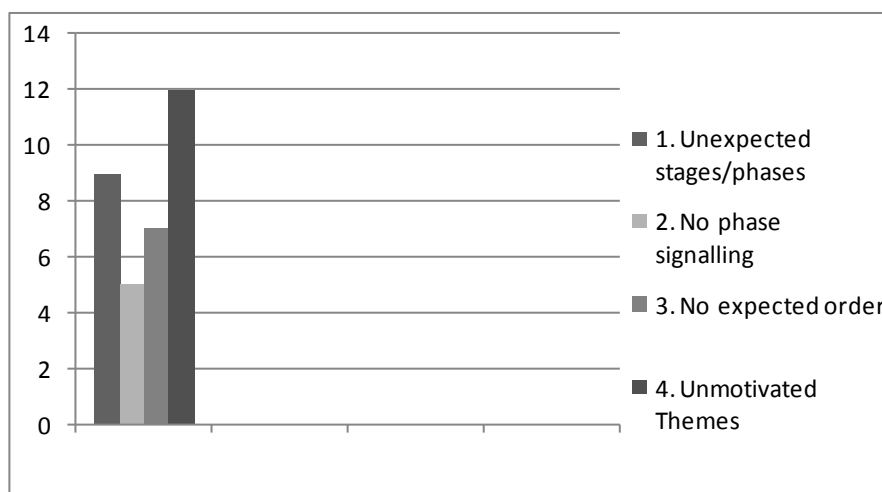
The description of the texts analyzed above illustrates that, although it is possible to predict thematic selections from the task instructions, these are not at all predetermined. These examples show two alternative ways of building up similarities and oppositions as anticipated in the task instructions, and in fact writers may come up with other possible appropriate thematic choices that might contribute to textual scaffolding. It is not possible nor would it be fruitful to make an exhaustive description of all possible accurate thematic configurations to build up the desired overall structure of a text. Thematic choices are multiple and they should be assessed in the textual context produced in each individual text to see whether they do or do not contribute to textual continuity.

In the following sections, some problematic cases will be analyzed to show how infelicitous thematic selections constitute a source of incoherence and produce textual ruptures.

B. Texts displaying some problematic Theme selections³³

Most of the texts in the corpus (33 out of 51) show specific problems that affect their texture, causing some interruptions in textual continuity. However, there is no uniformity in the types of obstacles that these texts present to the reader. Rather, they should be seen as placed along a continuum between the texts with appropriate thematic selections and those in which thematic choices are noticeably disruptive.

The difficulties detected in these texts are related to (1) Themes that construe unexpected stages/phases, (2) thematic selections that do not contribute to phase signaling, (3) Themes that do not follow the expected order, and (4) choices of unmotivated Themes, with the following distribution:



Graph 3.2 Distribution of problems

Themes in (1) and (2), which taken together constitute the most visible problem in the corpus, relate to the role of the structural configuration of the clause in the creation of stages and phases in texts. At this point we need to go back to the context in which students' texts are produced: the task instructions, whose demand somehow anticipates the generic configuration of the response and the stages and phases through which it will likely unfold. In the case under study, there is a demand for a description of similarities and differences between two types of reference, which creates an expectation of an optional classification stage followed by a description stage unfolding in phases of similarities, differences, examples and elaboration of the examples. Difficulty (1) arises from the fact that some of the Themes of the clauses are disruptive as they contain information about endophoric and exophoric reference, thus creating unexpected phases. On the other hand,

³³ See Appendix G.

difficulty (2) occurs when some of the Themes, though belonging to texts about similarities and differences, carry semantic content that makes no contribution to the scaffolding of the text and thus affect its texture. Difficulty (3) takes place when the Themes do not follow the expected order in relation to previous announcements in the text, for example in cases where similarities are mentioned first in a hyper-Theme and then developed in final position in the text. And finally, difficulty (4) occurs when some Themes are considered to be unmotivated following Fries' notion of predictability: they are cases in which it is not possible for the reader to imagine a reason for the writer's thematic selection at a particular point in the text.

An example of each problem will be analyzed in turn in the subsequent sections.

B.1. Themes that construe unexpected phases about endophoric and exophoric reference

There is a group of texts in which the thematic selections seem to be appropriate and to contribute to textual continuity. However, this appears to be so if the responses are read in isolation and not as a move in the exchange initiated by the task instructions. When these texts are contextualized and read as a semantic unit together with the instructions, the interruption of continuity becomes evident as the thematic choices scaffold stages and phases of a classifying report instead of phases of the expected descriptive report. Some of these texts have already been analyzed for schematic structure in section 3.3.2.2 above (classifying report: an unexpected genre), and it has been argued that they do not structurally respond to the demands of the task instructions. This contention will now be supported with the Theme analysis of the text described below. Our aim is to show how the construal of the overall structural configuration of the text is also achieved through thematic choices at the clause level. The following analysis illustrates how this micro- level organization of information, that is, the organization of information in the clauses that realize the text, functions as a structuring principle of the text as a whole. The Themes in the example have been identified following the conventions introduced in section 3.2.2 above:

*Reference can be endophoric and exophoric. The former type of reference can be a cohesive device that is used to refer to an element explicitly mentioned in a discourse. Endophoric reference can be anaphoric –when it points at an element that was mentioned earlier in discourse– or cataphoric– when it points at an element that will be mentioned later. [For example], **in I met a girl. Her name is Jane**, 'her' makes anaphoric reference to 'a girl', [whereas] **in He told me who she is. She's his girlfriend**, 'she' makes cataphoric reference to 'his girlfriend'. [On the other hand], **exophoric reference** points at an element that is part of the communicative context of the discourse's occurrence, [and so] **it can never be a cohesive device. [For example]: I don't know where I left my wallet; in this case, I and 'my'** makes reference to the speaker. (Text 13)*

Like in Text 3 above (pp. 79) the opening clause in this example *-Reference can be endophoric and exophoric-* also realizes the classification stage in the schematic structure of the text and functions as the hyper-Theme of the whole passage. However, in this case the announcement is about types of reference: endophoric and exophoric and, although the expectation is fulfilled through the thematic selections in the following clauses, they scaffold a genre which is not the expected one: a descriptive report organized around similarities and differences. That is, the starting points of the subsequent clauses construe phases related to ‘types’, which construe a classification of the phenomenon of reference. This thematic patterning can be graphically represented as follows:

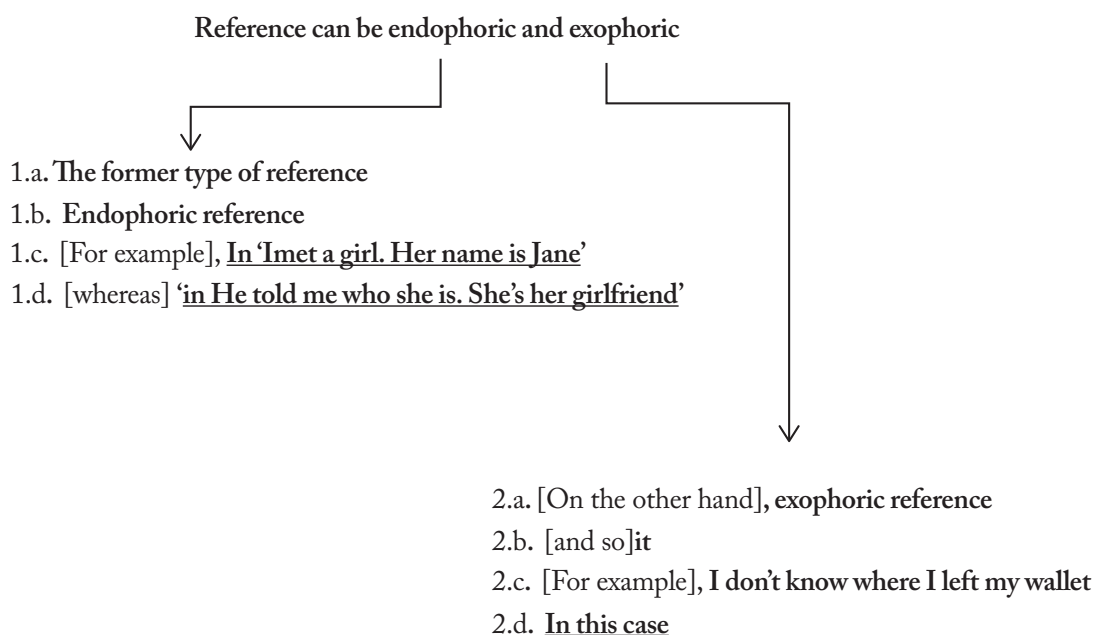


Figure 3.2 Patterns of thematic selection in Text 13

The Theme in the first clause is the hypernym *reference*, classified in the Rheme as *endophoric* and *exophoric*. As stated before, this clause functions as the hyper-Theme of the text, and the Themes that follow generate two subsequent chains, the first one containing information about the hyponym endophoric and the second one about the hyponym exophoric. The method of development then goes from the ‘general’ phenomenon of reference to ‘specific’ types of reference.

It could be argued that the parallel structures in both chains (compare 1.a, b, c, d and 2. a, b, c, d) and the presence of the conjunctive adjunct *on the other hand*, which explicitly signals contrast, may function as resources to signal opposition between both types of reference. In other words, it could be contended that the text above is construed as, at least, a partially appropriate response to the task instructions. However, there are arguments to consider that this is not the case. A first counter-argument might be that the classification stage conditions the reading of this text as a

classifying report. But even if we imagine the absence of this first stage –as is the case in several texts in the corpus with similar compositional structures– it is possible to notice that the features mentioned are not arranged in paired oppositions but in two subsequent chains, which weakens the contrastive effect and leaves it to the reader to make the necessary inferences. Besides, it could be added that all classifications, precisely because of the nature of the phenomenon, involve similarities and differences between the members of a class. That is, the descriptions of different types of members of a class will necessarily involve similarities, because that is what makes all of them belong to the same class, and differences, as that is what makes them different types within the same class. So in spite of displaying parallelism and contrast in the description of both types of reference, this text is construed as a classifying report, as revealed by the thematic selections in the clauses that realize it, when a descriptive report is expected instead.

As can be seen in this case, although the thematic choices are consistent, they do not contribute to the construal of the desired genre. The selected Themes show a method of development that goes from general to specific, taking the phenomenon of reference as the point of departure and then selecting Themes in which the participants are types of reference: endophoric and exophoric. The taxonomic organization revealed by the thematic patterns in this text may prove useful in explaining why it fails to be a response to the task instructions.

B.2. Thematic selections that do not contribute to phase signaling

We have just described how the thematic choices in some texts produce an interruption of textual continuity between the first and the second move in the exchange. This is not the case in the texts we will look at now. The responses in this group do describe similarities and differences between endophoric and exophoric reference and so there is connectedness between response and task instructions. However, some unsuitable thematic selections interrupt the continuity in the response itself as they fail to signal expected phases. This is shown in the following example³⁴, which has been transcribed clause by clause to make thematic choices more visible:

- a. ***There** is one main similarity between endophoric and exophoric reference,*
- b. ***both** are ways of referring to things or to objects or subjects.*
- c. *[On the other hand], **there** is one main difference between these two references.*
- d. *As regards endophoric reference, it is a device that creates cohesion since it refers to something within the text.*
- e. *[For instance], 'Cognitive control may be defined as emotional self-regulation and the suppression of irrelevant thoughts. It begins to decline noticeably in the 70s or 80s.'*

³⁴ There are some vague, inaccurate concepts that are overlooked in the analysis, for example in (b) 'ways of referring to things or to objects or subjects'

- f. ***In this case** the subjective personal pronoun 'it' functions as endophoric anaphoric pronominal reference since it points back to 'cognitive control',*
- g. *the referent of 'it' can be found within the text.*
- h. *As regards exophoric reference, it does not create cohesion since it does not point something within the text but outside the text.*
- i. *[For example], **This happens because adults have distractions that the mind once would have suppressed**.*
- j. *The meaning of 'this' cannot be decoded since the referent is not in the text, but in the extra textual context, outside the text. (Text 4)*

The first two Themes in the text above announce something that endophoric and exophoric reference share. In (a) the Theme *there* anticipates the existence of what will be introduced as a similarity in the Rheme of that clause and in the Theme of clause (b) (*both*). These two clauses realize the similarity phase and then the existential 'there' as the Theme in (c), preceded by the contrastive Textual Theme *on the other hand*, signals a new phase of differences in this case. This announcement generates an expectation that the absolute Themes in clauses (d) and (g) -*as regards endophoric reference* and *as regards exophoric reference*- contradict, as they appear to be initiating unexpected phases that do not contribute to the construction of the announced opposition. The point of departure of clause (d) contains information about the endophoric reference type and the one in (g) about the exophoric reference type, which creates a disruptive feeling of initiation of new phases although the information is in fact oriented towards the continuity of the development of differences between them. In other words, these two thematic selections do not contribute to the construction of the textual phase about differences. What allows the reader to reconstruct what is said about endophoric and exophoric reference in terms of opposition is the announcement of differences made in (c) and some sections in the Rheme of clauses (f), (g) and (h), but not the Themes in (d) and (g).

The following rewrite of the text, in which unsuitable thematic choices have been modified, provides a more coherent version of the same experiential meanings. Some changes in punctuation have also been made in (a), (e), (f) and (i). The modifications are numbered in the original text and both versions are presented side by side so that they can be easily compared:

Original Text	Rewritten text
a. There is one main similarity between endophoric and exophoric reference,	a'. There is one main similarity between endophoric and exophoric reference:
b. both are ways of referring to things or to objects or subjects.	b'. both are ways of referring to things or to objects or subjects.
c. [On the other hand], there is one main difference between these two references.	c'. [On the other hand], there is one main difference between these two references.
d. <u>As regards endophoric reference</u> , it is a device that creates cohesion since it refers to something within the text. (1)	d'. While endophoric reference is a device that creates cohesion since it refers to something within the text , exophoric reference does not create cohesion since it does not point to something within the text but outside the text.
e. [For instance], 'Cognitive control may be defined as emotional self-regulation and the suppression of irrelevant thoughts. It begins to decline noticeably in the 70s or 80s.' (3)	e'. [For instance], in 'Cognitive control may be defined as emotional self-regulation and the suppression of irrelevant thoughts. It begins to decline noticeably in the 70s or 80s' , the
f. In this case the subjective personal pronoun 'it' functions as endophoric anaphoric pronominal reference since it points back to 'cognitive control', (4)	subjective personal pronoun 'it' functions as endophoric anaphoric pronominal reference since it points back to the referent 'cognitive control', which can be found within the text.
g. the referent of 'it' can be found-within the text.	
h. <u>As regards exophoric reference</u> , it does not create cohesion since it does not point to something within the text but outside the text. (2)	
i. [For example], in 'This happens because adults have distractions that the mind once would have suppressed' .	f'. [On the other hand], in 'This happens because adults have distractions that the mind once would have suppressed' , the meaning of
j. The meaning of 'this' cannot be decoded since the referent is not in the text, but in the extra textual context, outside the text. (5)	'this' cannot be decoded since the referent is not in the text, but in the extra textual context, outside the text.

Keeping the experiential meanings in the original text, the rewrite introduces modifications in the thematic structures of some clauses which contribute to textual continuity. The absolute Themes in (d) and (h), which cause the disruptive sense of initiation of new phases, have been eliminated and instead a clause complex (d') has been introduced with a fronted dependent clause of contrast as the marked Theme of the whole structure. This clause complex, which realizes the phase of differences together with clause (c') is followed by two clause complexes (e') and (f'), which realize the exemplification-elaboration phase. The Theme in (e') has resulted from a fusion of Themes

(e) and (f) in the original version with the aim of avoiding the fragment in (e). Besides, (g) has been incorporated as a dependent clause in the Rheme of this structure to avoid the unnecessary thematic status allotted to *the referent of 'it'* in the original. The following example in (f') has been introduced with an explicit marker of contrast, the conjunctive adjunct *on the other hand*. With these modifications, the rewrite manages to restructure the experiential meanings in the original text providing a more appropriate scaffolding to build up the desired phases about the differences between the two types of reference.

B.3. Ineffective order of Themes

In some texts the identification of thematic choices reveals interruptions in discourse continuity that result from an inappropriate ordering of information in the text. This is the case in the following example³⁵, together with some inadequate selections of clause initial position. As the identified thematic choices in the transcription below show, the Themes in (a) and (b) refer to endophoric and exophoric reference contrastively and the same happens in (d) and (e), which somehow refer back to the information contained in the first two clauses. Therefore, the reference to a similarity inserted between these two blocks in (c) seems to interrupt the contrastive description.

- a. *The difference between endophoric and exophoric reference is that endophoric reference refers to words inside the text, for instance 'The cat is mine. It is beautiful' where 'it' refers to 'cat' that is mentioned before.*
- b. *[And] exophoric reference refers to concepts that are not mentioned in the text, for example 'You have to go to the supermarket' where we can assume that 'you' is one participant in the conversation.*
- c. *[While] the similarity is that they both refer to something that is known or shared.*
- d. *In the case of endophoric reference, it is known because it is written in the text, for instance 'the man with white hair'.*
- e. *[And] in exophoric reference it is shared information, as with homophoric reference, because there could be only one thing to refer to, for example 'the sun'; because it is known by the context, for instance, if there is only one baby in the room we say/write 'the baby'; and because we could be talking in general as in 'The child usually grows up to be intelligent'. (Text 18)*

A first reordering consisting in the movement of clause (c) to initial position could improve the organization of information in the text as this operation would allow the similarity to become the point of departure and the differences to be grouped after that. However, there would still be

³⁵ This text contains some inaccuracies that have not been modified in the rewritten text, for example: the reference to 'words' instead of 'participants' in (a) and rather unclear concepts in (e). On the other hand, inappropriate use of conjunction – (b), (c) and (e) – was solved in the rewrite.

a problem of continuity between clauses (a) and (b) as (b) gives thematic status to information that could effectively contribute to information flow if presented in the Rheme of the previous clause. In other words, (a) *The difference between endophoric and exophoric reference* announces something about differences between endophoric and exophoric reference, but what is said about that thematized information is structurally divided between the Rheme in (a) *is that endophoric reference refers to words inside the text...* and the Theme and Rheme in (b) *[And] exophoric reference refers to concepts that are not mentioned in the text...* Thus a structural reconfiguration of both clauses might provide more appropriate scaffolding for the contrastive description. The following steps suggest the construction of an alternative text in which these problems are solved:

Original text	Alternative Text
1. Location of (c) in initial position without textual Theme.	→ a'
2. Preservation of structure (a) with its thematic selection, except for the constituent that realizes the example.	→ b'
3. Insertion of structure (b) - except for the constituent that realizes the example- in the Rheme of (a), preceded by contrastive subordinator.	
4. Thematization of example in (a).	→ c'
5. Thematization of example in (b) preceded by contrastive textual Theme.	→ d'

The resulting rewritten text is presented in the table below together with the original text, so that they can be compared. The changes are numbered in the source text:

Original text	Rewritten text ³⁶
<p>a. <i>The difference between endophoric and exophoric reference is that endophoric reference refers to words inside the text, for instance 'The cat is mine. It is beautiful' where 'it' refers to 'cat' that is mentioned before.</i></p>	<p>a'. <i>The similarity between endophoric and exophoric reference is that they both refer to something that is known or shared.</i></p>
<p>b. [And] <i>exophoric reference</i> refers to concepts that are not mentioned in the text, for example 'You have to go to the supermarket' where we can assume that 'you' is one participant in the conversation.</p>	<p>b'. <i>The difference between them is that endophoric reference refers to words inside the text while exophoric reference refers to concepts that are not mentioned in the text.</i></p>
<p>c. [While] <i>the similarity</i> is that they both refer to something that is known or shared.</p>	<p>c'. <i>[For instance], in 'The cat is mine. It is beautiful', 'it' refers to 'cat' that is mentioned before.</i></p>
<p>d. <u>In the case of endophoric reference</u>, it is known because it is written in the text, for instance 'the man with white hair'.</p>	<p>d'. <i>[On the other hand], in 'You have to go to the supermarket', we can assume that 'you' is one participant in the conversation.</i></p>
<p>e. [And] <u>in exophoric reference</u> it is shared information, as with homophoric reference, because there could be only one thing to refer to, for example 'the sun'; because it is known by the context, for instance, if there is only one baby in the room we say/write 'the baby'; and because we could be talking in general as in 'The child usually grows up to be intelligent'.</p>	<p>f. [But] <u>in exophoric reference</u> it is shared information, as with homophoric reference, because there could be only one thing to refer to, for example 'the sun'; because it is known by the context, for instance, if there is only one baby in the room we say/write 'the baby'; and because we could be talking in general as in 'The child usually grows up to be intelligent'.</p>

The table shows how the original experiential meanings have been reconfigured in different clauses with modified departure points. Through these choices textual continuity is achieved without altering the information in the original text (though some conceptual adjustments should also be made). The reallocation of Themes with the thematic adjustments introduced have contributed to the flow of information, functioning as signposts for the development of the text: the Themes in the rewrite announce a similarity, differences, two contrasting examples and an elaboration on that contrastive relation. Also, as a result of the changes clauses (d') and (e') function as elaborations of the examples. They do not appear as a mere conceptual repetition, as in the original text.

There are other texts³⁷ in which the clause that functions as the hyper-Theme announces similarities and differences and then differences are developed first, which is also a source of discontinuity.

³⁶ The rewrite contains conceptual inaccuracies, especially in (f') that remain to be solved.

³⁷ For example, see text 17 in Appendix E

In other cases³⁸, similarities and differences are introduced as a final remark in the text, after classifying and describing endophoric and exophoric reference. In these cases, it is also possible to reallocate clauses taking thematic choices into account to make the text a more appropriate response to the task instructions.

B.4.Unexpected thematic selections

In this group of texts the disruptive effect is produced by an unexpected thematic choice which interrupts information flow. That is, there are Themes whose motivation the reader finds difficult to reconstruct as there is no attributable source. Such is the case of Theme (f) in the response below:

- a. **Both exophoric and endophoric references** are grammatical cohesive devices which are used to refer to a presupposed referent by the use of pronouns.
- b. [However], **they** differ in where the referent is recourse to.
- c. [On the one hand], **endophoric reference** is used to replace items within the text.
- d. **Take** for example, 'Maria loves John. She is in love with him'.
- e. **In this last case** 'she' refers back to 'Maria' and 'him' to 'John'.
- f. [Moreover], **the definite article 'the'** can be used to refer to an item coming right after it (exophoric reference).
- g. [On the other hand], **exophoric reference** is used to refer to an item from the context in which the text was produced.
- h. [For instance], '**He told me I shouldn't go**'.
- i. **In this case, taken from a conversation**, 'he' refers to a presupposed male entity, and 'I' and 'me' refers to the speaker. (Text 33)

Overall, this text displays a predictable pattern of thematic selections, except for one Theme. The first topical Theme in (a) announces something about endophoric and exophoric reference, and then (b) introduces a contrastive message through the textual Theme *however* and the topical Theme *they*, which refers back to both types of reference. The following textual Theme *on the one hand* in (c) anticipates the development of the already announced contrastive aspect with a focus on endophoric reference, the participant that realizes the topical Theme in that clause, which is subsequently followed by an example and an elaboration on the example in (d) and (e) respectively. That pattern is repeated later in (g), (h) and (i) with a change in the participant, which is exophoric

³⁸ See text 41 in Appendix G for a classification of endophoric and exophoric reference in which only the last two Themes -[so] both endophoric and exophoric reference' and [but] they- announce similarities and differences.

reference in this case. Between these two similar patterns, the reader comes across (f), in which what is given thematic status is *the definite article 'the'*. The thematization of that participant fails to be an appropriate choice as it does not fit into this textual context and interrupts the textual continuity -it is difficult for the reader to make sense of that thematic selection.

The thematic reformulation of that clause could add continuity to the text. The preceding Themes are about endophoric reference and on an example illustrating the phenomenon. More specifically, though not explicitly stated, the example provided in (d) is about endophoric 'anaphoric' reference (*she refers back to Maria-* in (e)), a type of text reference in which the presumed participant is to be found before the reference form in the text. The information in the problematic clause - (f) - is about another type of endophoric reference in which the presumed participant is after the reference form in the text, called 'cataphoric reference'. In this case the writer has provided an example of a type of cataphoric reference known as 'esphoric reference'. A possible thematic reformulation for (f) could be *Endophoric reference forms can also be used to refer to a participant coming right after them, like the definite article 'the' in esphoric reference*. In this reformulation, what was thematized in the original text has been placed in Rheme position, and the selected Theme is realized by the same participant as in the previous clauses, providing topic continuity.

There are other texts in this group in which Theme analysis reveals the presence of unnecessary information in the text or the use of unnecessarily marked structures. For example, the departure points in clauses (a) and (b) below announce something about the phenomenon of reference. However, these announcements are uncalled for given the request made in the task instructions. On the other hand, the choice of a predicated Theme in (f) carries a contrastive or corrective meaning, unnecessarily placing focus in marked initial position.

*(a) Reference is one of the cohesive devices used by grammatical cohesion to create unity and uniformity in a text. (b) Reference can be either endophoric or exophoric. (c) Both share a relation of identity, (d) [that is to say], the grammatical item that performs these functions refers to another item, (e) [and] the reader must retrieve the latter to find out the identity of the former. (f) It is 'where' the reader needs to go to find out this identity that makes the difference. (g) While in endophoric reference, the referent is within the text, in exophoric reference the referent is outside or in the surroundings of the text. (h) To illustrate these ideas we can take into account the following examples: 'Paul bought a house. **It** is beautiful'. 'Things are difficult at home **now**'. (Text 22)*

As there is no reason for the selection of the first two Themes, the clauses they introduce could be omitted altogether. In the case of (f), as the Theme signals the beginning of a new phase, the writer could have chosen an unmarked thematic equative to convey an idea of exclusiveness and avoid the unnecessarily marked focus in the predicated Theme: *What makes the difference (between them) is where the reader needs to go to find out this identity*.

C. Disruptive Themes³⁹

We have already analyzed examples of inappropriate or unexpected Themes that interrupt textual continuity. However, in these texts the selection of such Themes seriously affects their texture, obstructing the flow of information and obscuring conceptual development. In terms of genre, two of the texts included in this group classify endophoric and exophoric reference while three of them describe similarities and differences. The example analyzed below can be compared with one of the texts with appropriate thematic selections analyzed above. This text also starts with a hyper-Theme that announces similarities and differences. However, in this case the writer does not manage to organize information so that the beginnings of the clauses that realize the text scaffold the desired method of development. The selected Themes are identified in the full text below, problematic sections are highlighted, and suggestions are made to improve the text in the boxes on the right.

(a) Endophoric (or textual) reference and exophoric (or situational) reference share both similarities and differences. (b) [On the one hand], both endophoric and exophoric reference contribute to the property of texture (c) [and] they can both be classified as pronominal, comparative or demonstrative. (d) [On the other hand], endophoric reference is the cohesive device (e) [while] exophoric reference is not. (f) Texture is what differentiates a text from a non-text, (g) [and], to achieve it, a text must present unity among its internal components (one instance of this unity is endophoric reference) and with its situational context (exophoric reference). (h) Both can be pronominal (in endophoric references, we can use a word such as 'she' to talk about a female participant previously introduced in the text while in exophoric reference we talk about a female nearby), demonstrative ('this chair' can refer to a previously mentioned chair in endophoric reference or a chair both the speaker and hearer can see in exophoric reference), and comparative (I can say 'you are taller' and the hearer would assume the rest from the context, or in a text one could read 'you are taller than Mr. Johnson' in written dialogue and 'taller' would refer back to a previously mentioned Mr. Johnson⁴⁰). (i) Exophoric reference is a non-cohesive device because it does not contribute to internal unity, (j) [instead] it refers to the situational context. (Text 15)

Reformulate (f) and (g):
(f') Endophoric reference contributes to the property of texture by providing semantic ties between the internal components of texts (g') [whereas] exophoric reference does so by linking the text to its situational context.

Place examples after (c) to avoid unnecessary repetition:
[For example], an instance of pronominal reference such as 'she', can be used endophorically to talk about a female participant previously introduced in the text or exophorically to talk about a female nearby, a demonstrative form like 'this' in 'this chair'....'

Omit

As the selected Themes show, the points of departure in (b), (c), (d) and (e) fulfill the expectation created in the hyper-Theme: the first two scaffold the similarity phase and the others the phase of difference. However, from that point onwards, the writer fails to organize the information in the subsequent clauses successfully. The initial elements in clauses (f)

³⁹ See Appendix H

⁴⁰ Conceptual problem.

and (g) refer to 'texture', creating a disruptive effect as 'texture' is unexpectedly thematized information and it is hard to find a reason for that selection. The experiential meanings in those clauses could be rearranged, thematizing 'endophoric' and 'exophoric' reference, as suggested on the right hand side, a change through which the intended method of development would be followed. The information contained in (h), whose Theme announces something about similarities, partly repeats what was already stated in (c), so a better choice would be to add that information after (c) as an exemplification phase introduced by an exemplification conjunct. Finally, the information in (i) and (j) could be omitted altogether as it has already been presented before in the text. The rewrite with the suggested changes would read as follows⁴¹:

Endophoric (or textual) reference and exophoric (or situational) reference share both similarities and differences. [On the one hand], both endophoric and exophoric reference contribute to the property of texture [and] they can both be classified as pronominal, comparative or demonstrative. [For example], an instance of pronominal reference such as 'she', can be used endophorically to talk about a female participant previously introduced in the text or exophorically to talk about a female nearby; a demonstrative form like 'this' in 'this chair' can refer endophorically to a previously mentioned chair or exophorically to a chair both the speaker and hearer can see; [and] a comparative form like 'taller' in 'you are taller' can refer endophorically to a previously mentioned Mr. Johnson or to somebody in the context. [On the other hand], endophoric reference is the cohesive device [while] exophoric reference is not. Endophoric reference contributes to the property of texture by providing semantic ties between the internal components of texts [whereas] exophoric reference does so by linking the text to its situational context.

The rearrangement of the experiential meanings contributes to the creation of patterns of thematic selections that scaffold the method of development of the text. This is shown in the following graphic representation, in which thematic selections in the rewrite are compared to those in the original text.

⁴¹ Experiential meanings have been kept so the text still contains the original conceptual problems.

Original text	Rewrite
(a) <i>Endophoric (or textual) reference and exophoric (or situational) reference share both similarities and differences.</i>	(a') <i>Endophoric (or textual) reference and exophoric (or situational) reference share both similarities and differences.</i>
(b) <i>[On the one hand] both endophoric and exophoric reference</i>	(b') <i>[On the one hand] both endophoric and exophoric reference</i>
(c) <i>[and] they</i>	(c') <i>[and] they</i>
(d) <i>[On the other hand] endophoric reference</i>	(d') <i>[For example], an instance of pronominal reference such as 'she'</i>
(e) <i>[while] exophoric reference</i>	(e') <i>a demonstrative form like 'this' in this chair</i>
(f) <i>Texture</i>	(f') <i>a comparative form like 'taller' in 'you are taller'</i>
(g) <i>[and] <u>to achieve it</u></i>	(g') <i>[On the other hand] endophoric reference</i>
(h) <i>Both</i>	(h') <i>[while] exophoric reference</i>
(i) <i>Exophoric reference</i>	(i') <i>Endophoric reference</i>
(j) <i>[instead] it</i>	(j') <i>[whereas] exophoric reference</i>

Through the reconfiguration of textual meanings in the rewrite, unexpected and unnecessary Themes are avoided. Instead, an exemplification phase is built after the similarity phase in Themes (d'), (e') and (f'), and then two pairs of oppositions (g')-(h') and (i')-(j') respectively build up the phase of differences.

The methodological tools offered by SFL prove to be useful in the analysis of texts in their multiple dimensions. In this study, the focus has been on the organization of information in students' texts in relation to the overall purpose of the text –knowledge demonstration in response to task instructions-, in particular on issues of generic structuring and textual continuity. As was expected, there were problems related to task accomplishment, more precisely a generalized failure to carry out the type of 'doing' demanded: some texts did not manage to produce the type of report required, classifying instead of describing the linguistic phenomenon under consideration, whereas others omitted textual phases in which the expected activity was to exemplify the phenomenon and elaborate on the examples.

A more local level of analysis of the organization of information provided further evidence for the generic misadjustment mentioned above and for other types of discontinuities that damaged the texts' internal texture. That is, the thematic analysis of the clauses that realize the texts helped visualize the creation of unexpected phases in some texts and the existence of textual ruptures that affected the overall purpose of the written productions.

Taking these difficulties as the point of departure, the next chapter will explore the explanations that the SFL model provides to account for the functional and cognitive complexities involved in the organization of information in written text production in a discipline. More specifically, it will analyze whether this theoretical framework fully explains not only the functional dimensions involved in language use for knowledge construction, but also the cognitive aspects implied in the manipulation of acquired knowledge and its use in new contexts.

CHAPTER 4

ON THE COMPLEXITIES OF WRITING IN A DISCIPLINE



When writing in a discipline, students face visible difficulties related to how language is used to construct knowledge and how that knowledge is to be structured in appropriate and contextually relevant ways. The ability to organize information adequately presupposes not only the existence of the content to be organized, but also the mechanisms that allow to flexibly manipulate that content. So to account for the complexities involved in the organization of information in disciplinary written text production, the starting point should logically be the way in which the knowledge to be organized is constructed.

In undergraduate education, content learning is fundamentally linked to language: learning in this domain almost exclusively occurs through language, so knowing a discipline involves knowing the language that is deployed to build the disciplinary field. In line with this language-based perspective on knowledge, writing is to be viewed as ‘a process of composition involving an active knower who creates meaning, rather than someone who acquires previously given information. And meaning creation involves the language-based discursive abilities that are necessary for shaping and expressing content and overtly manifesting what is called *thought*’ (Ryshina-Pankova & Byrnes, 2013: 179). These language abilities involve three fundamental aspects: knowledge of the expansive capacities of language as a semiotic system, knowledge of the relationship between this semiosis and the more abstract semiotic systems of the context in which language is used, and the capacity to use that knowledge appropriately in new contexts and with new purposes. The SFL model provides illuminating insights into the functional complexities involved in the structuring of knowledge in disciplinary written text production. These contributions have been instrumental in the analysis of the texts produced by students and will be further explored in the following section to gain a deeper understanding of the process that goes from access to disciplinary content to demonstration of acquired knowledge.

4.1. On functional complexities

Writing effective texts about disciplinary content presupposes, as has already been said, knowing about the language that is used to build the discipline-specific context. And that language is learnt through the texts that construe and transmit the body of disciplinary knowledge –predominantly written in academic settings. Confronting a source text in which disciplinary meanings are made implies the complex enterprise of understanding the semiotic resources deployed. The systemic-functional model of language reveals the magnitude of the learners’ endeavour by thoroughly describing the bi-directional relationship between the linguistic system and its context of use. Accordingly, understanding the content construed in a text involves the complex tasks of

understanding patterns of ideational, interpersonal and textual meanings in the lexicogrammar, how these lexicogrammatical patterns realize patterns of meaning in discourse, the way in which these linguistic resources realize semiotically relevant dimensions of the situation (what is being talked about, who is interacting, the role of language) and the way in which text structure sequentially and hierarchically organizes the purpose of the text. This complexity is shown in the following figure:

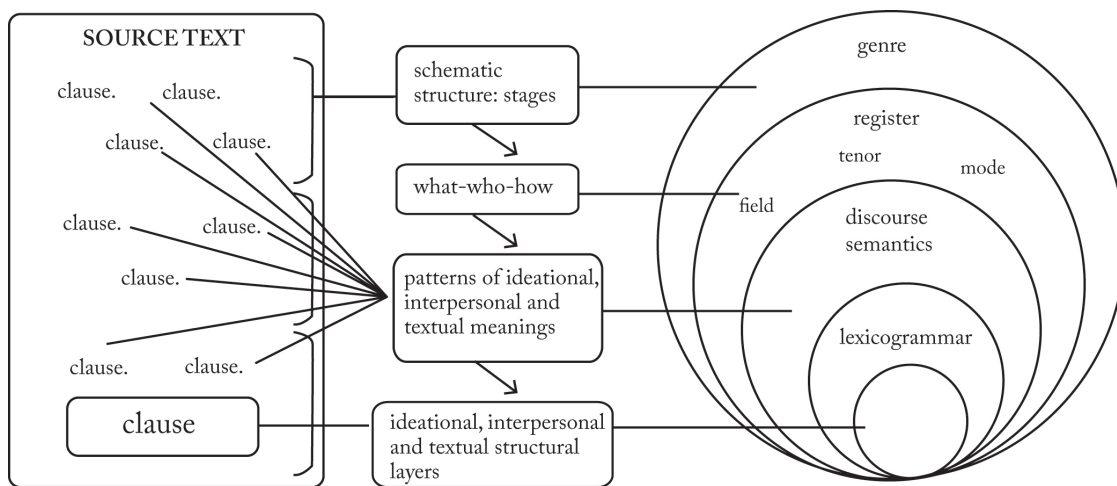


Figure 4.1 The semiotic/functional complexity of disciplinary texts

In disciplinary learning at university, the field of discourse has a predominant role together with the way in which information is organized as written text. Each field is conceptualized through a restricted set of genres, and conceptualizations, in turn, involve discipline-specific, uncommonsense taxonomies, activity sequences and logical relations. Besides, these meanings are construed in the form of written texts, a mode that involves context independency and thus greater demands on the manifold resources that make up the linguistic system itself. So learning a discipline means learning how that discipline structures its knowledge, the uncommonsense taxonomies involved in its conceptualization, the logical relations established, and the way in which information is hierarchically organized, all of which is realized through choices in the linguistic system.

Another essential aspect of the learning process, in this case concerning discipline specific content, is assessment: students acquire knowledge and are then required to demonstrate what they have learnt. Knowledge demonstration is an activity that students typically carry out in response to task instructions. That is, students do not freely show their acquired knowledge, but they do so as required in instructions given by their teachers. This adds further complexities to the process of knowledge construction that a functional perspective can also account for. Confronting a task means a new challenge involving an understanding of a different social activity with its linguistic implications. Tasks constitute an exchange initiated by a teacher-produced procedure that typically requires a field specific 'verbal action' such as conceptualizing, exemplifying, explaining, comparing, among others. The task instructions regulate students' performance restricting their

responses both in terms of field and genre; they narrow down the content to be developed and its generic configuration. As has already been mentioned, task instructions may be brief and specific, presupposing steps that are assumed to be part of students' knowledge about certain field specific procedures. Whereas the genre *task instructions* is always a procedure, the compositional structure in the responses may vary according to the task and thus needs to be worked out by the student-addressee. Even so, the structuring of the content in the response texts will generally take the compositional form of genres through which students acquire the disciplinary knowledge -description, classification or explanation in the case of linguistics. In other words, the task instructions constitute an essential aspect of the context for students' texts. This is so because they initiate a dialogue on disciplinary knowledge imposing tight constraints on the responses. These limitations are coded in the lexicogrammar of the clauses that realize the genre so a thorough understanding of these linguistic realizations and their relation to contextual aspects is essential for the effectiveness of response texts. The following figure contextualizes disciplinary assessment tasks and illustrates the functional complexities involved:

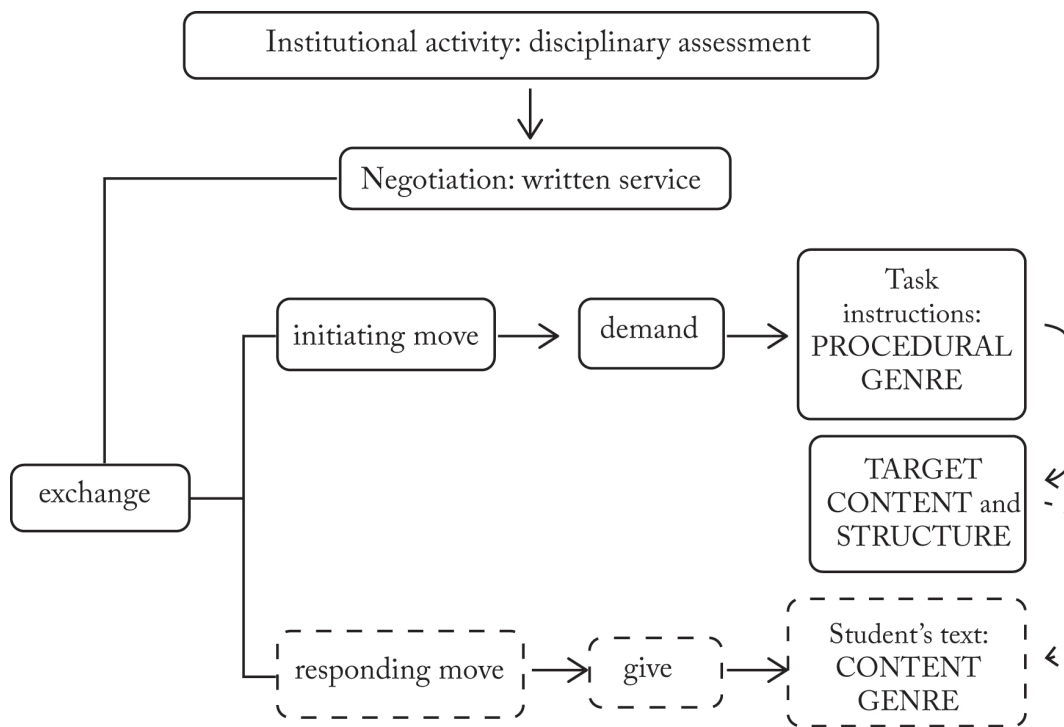


Figure 4.2 The functional complexity of tasks

Disciplinary knowledge assessment takes the form of a negotiation between teacher and student. Both interactants engage in an exchange in which a written service is negotiated. The first move, initiated by the teacher, demands a service through a procedural genre: the task instructions. The instructions impose restrictions on the following move and by doing so reveal the unequal status of the participants: the teacher makes a demand and the students have to satisfy it providing the

required service. To do so, students have to be able to interpret the nature of the communicative situation in general terms and, more specifically, the concrete constraints imposed in the grammar of the instructions, which more or less straightforwardly determine the target content and structural configuration of the response. A further complexity is added by the fact that although written assessment is interactive, there is no possibility of immediacy of feedback. That is, the production of an appropriate text heavily relies on the ability to interpret the grammar of the written instructions and the presupposed or intended meanings behind them.

The functional dimensions of language that students need to be able to use effectively in the process that goes from knowledge acquisition to knowledge demonstration are quite complex and thus require special awareness for the development of texts that meet discipline specific standards –knowledge structuring being a key aspect. There is a first context of knowledge acquisition in which the reading of a source text gives access to disciplinary meanings, which are realized through the multifunctional, multistratal semiotic system of language. Learning these meanings implies understanding the complex linguistic realizations of the disciplinary conceptualizations. There is then a second context, that of knowledge assessment/demonstration, which involves an unequal exchange of a written text on discipline specific knowledge and which may be divided into two moments: (a) the procedure that regulates assessment in the task instructions, and (b) the task response. The first moment entails the ability of reading to deconstruct the meanings that encode both the conceptual and compositional requirements. On the other hand, the second moment involves the ability to make meanings while complying with those restrictions. The production of an appropriate written text presupposes knowledge about the language that is used for the required conceptualization and about the expected structuring of the demanded content. This knowledge is usually drawn from previously accessed source texts and has to be adapted to the demands of the new context. The following figure sets out to graphically represent the overall functional complexities of the whole process. It should be pointed out that although one source text is represented in the figure, the concepts required for the elaboration of the response might come from different source texts.

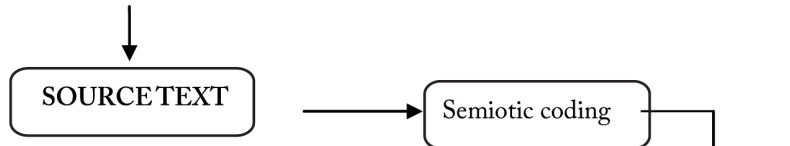
CONTEXT1:

Genre: variable, field dependent (predictably report: descriptive, classifying, compositional/explanation: sequential, consequential, conditional, factorial)

Field: Knowledge transmission- Subject matter: Linguistics

Tenor: Unequal relation between participants - A knowledgeable text producer that transmits concepts

Mode: Written



CONTEXT2:

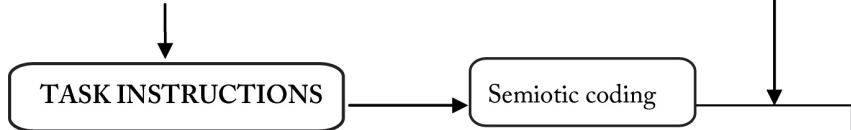
Moment a:

Genre: procedure: task instructions

Field: Knowledge assessment – Subject matter: Linguistics

Tenor: Unequal relation between participants - A knowledgeable addresser imposes restrictions on the activity to be performed.

Mode: Written



Moment b:

Genre: variable, task dependent (predictably report: descriptive, classifying, compositional/explanation: sequential, consequential, conditional, factorial)

Field: Knowledge demonstration- Subject matter: Linguistics- task dependent

Tenor: Unequal relation between participants - A text producer addresses a more knowledgeable reader complying with imposed restrictions.

Mode: Written

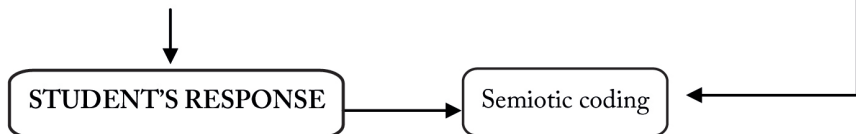


Figure 4.3 Process of knowledge acquisition-knowledge demonstration: functional complexities

The explanation in the paragraphs above has accounted so far for the functional complexities involved in knowledge acquisition and in the organization of information required for knowledge demonstration. However, any instance of language use involves cognitive processes that also need to be explained. The social and the cognitive aspects of language use need not be dissociated; much on the contrary, they are closely interrelated as one presupposes the other. Social processes involve individual human beings that construe mental representations of their surrounding experience and so the social does not preclude individualities. On the other hand, mental representations and processes are socially situated: they are construed in a social environment and can thus be referred to as social cognition (Tomasello, 2014). Understanding not only the functional but also the cognitive dimensions involved in the structuring of knowledge in written text production will provide insights that will be essential to inform and orient pedagogical practices. With this in mind, the view of language as a form of social action will be complemented in the following sections with a cognitive approach to language and what people do with it.

4.2. On cognitive complexities from a SFL perspective

It could be speculated that a theory of language as a social semiotic excludes by definition any reference to language as cognition, the focus being on the social aspect of language and not on mental representations or mental processes underlying the acquisition and manipulation of information. However, SFL does offer an explanation of cognition. Halliday and Matthiessen (1999: ix-x) describe cognition as a linguistic construct on the grounds that the human species -and each individual member of that species- constructs a mental map of the phenomenal world through language. The authors thus contend that the linguistic system -the most fundamental semiotic resource¹- materializes in the individual's brain as represented in the following figure.

¹ Language is referred to as 'the most fundamental semiotic resource' thus presupposing the existence of other semiotic (i.e. meaning making) resources, such as music, painting, architecture, ritual and other behavior patterns, make-up and dress codes. Halliday and Matthiessen (1999: 509) focus on language as the prototypical semiotic system on the grounds that it is 'the one whereby the human species as a whole, and each individual member of the species, construes experience and constructs a social order'.

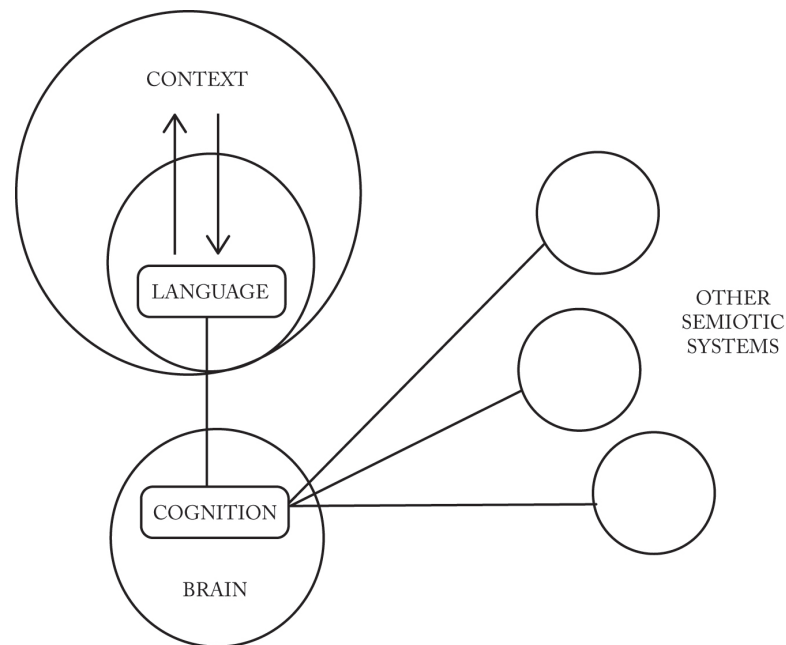


Figure 4.4 Language and cognition

From this theoretical perspective, the mental map is to be interpreted as a semiotic map, and cognition is just a way of talking about language². Knowledge is thus modeled semiotically: *understanding* something is transforming it into meaning, and to *know* is to have performed that transformation. This emergence of knowledge –the transformation of experience into meaning– always occurs in semiotic systems, with language as the most central. In other words, knowledge is fundamentally dependent on language as all representations of knowledge are constructed from and through language in the first place. It follows from this that knowing something is inextricably tied to being able to express it linguistically, to put it into words. And it also follows that all the functional complexities mentioned above, which are in turn revealed in the complexities of their linguistic realization, can be as well referred to as cognitive complexities.

The perspective described above is a ‘constructivist’ one, according to which reality is unknowable and the only things that can be known are our construals of it –that is, meanings (Halliday & Matthiessen, 1999: 17). But meanings do not exist before the wordings that realize them: they do not exist before being realized by the grammar of language. Organized as a metafunctional, stratified system, language is able to create meanings because it establishes a relationship between ourselves –our consciousness– and our environment. Now these meanings are linguistically accessed

² Halliday and Matthiessen (1999) seem to equate cognition with language. On the other hand, for many psychologists linguistic skills are a type of cognitive skill and may be explained in fundamentally the same terms. Tomasello (2014, xxvi) argues that ‘although the way cognition is manifest in language may have some of its own peculiarities because of the uses to which it is put, in general it is accurate to say that the structures of language are taken directly from human cognition, and so linguistic communication, including its grammatical structure, should be studied in the same basic manner using the same basic theoretical constructs as all other cognitive skills’.

in the form of texts; that is, individuals do not access the system all at once, but they do so through instances of the systemic potential. Going back to the idea of disciplinary knowledge construction, we can say that students have access to different field- specific texts of which they create mental maps once they have transformed that linguistically coded information into meaning. This is shown in the following figure:

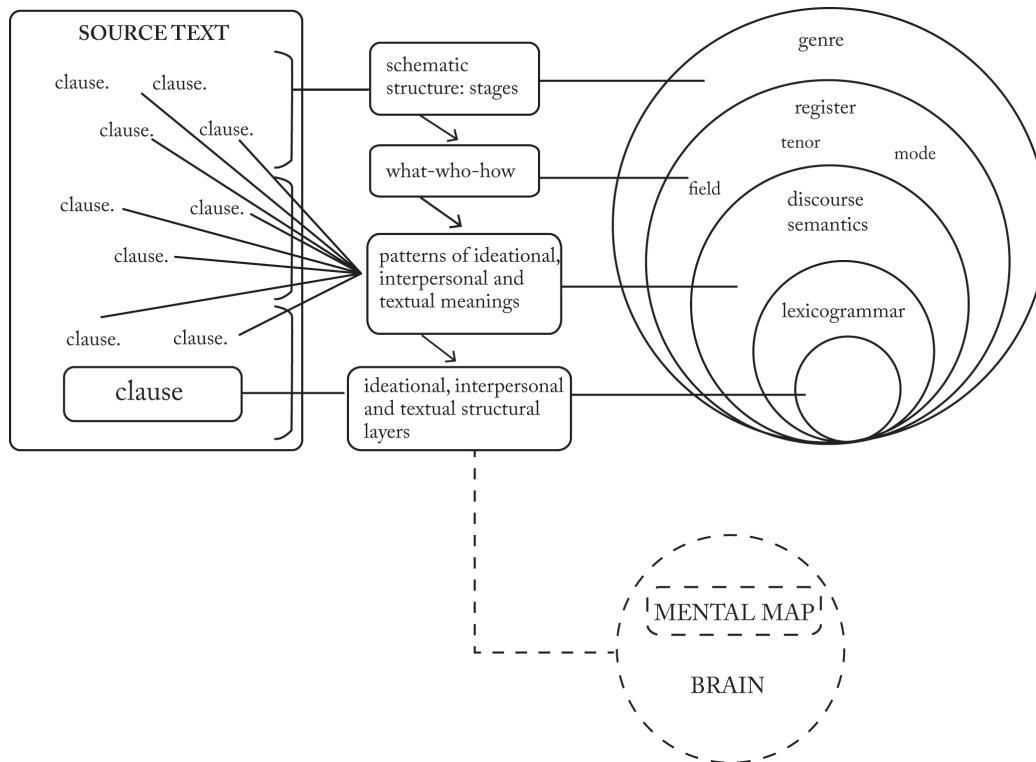


Figure 4.5 Mental map of knowledge construction

A sustained interaction with disciplinary texts is supposed to result in an expansion of the students' meaning potential, as they will increasingly accumulate semiotically represented knowledge. This development of the system in the individual is called 'ontogenesis'³ (Halliday, 1993; Halliday & Matthiessen, 1999; Martin, 2005), and it undergoes critical periods in the course of formal education; there are transitions from the domestic use of commonsense spoken language to written language and from non-specialized language to technical language. The ontogenetic perspective shows that experience is constantly being reconstrued and recategorized as human beings mature and that this process is always the result of interaction between individuals. The dialogic dimension of meaning making processes is vital as dialogue is not just something that makes learning easier but an inherent property of semiosis (Halliday & Matthiessen, 1999: 610-11).

³ Ontogenesis is a type of 'semogenic' process, or process of meaning creation, which, by definition, takes place through time. The other two fundamental types of semogenic processes are 'phylogenesis' – the development of the system in the human species-, and 'logogenesis' – the instantiation of the system in the text.

On the basis of these conceptualizations, SFL advocates that effective learning and teaching of content cannot be dissociated from an explicit knowledge about the language through which that content is construed. Institutionalized learning occurs through language or, as Halliday puts it, 'educational knowledge is massively dependent on verbal learning, so learning language means learning the foundation of learning itself' (1993: 93). The systemic functional genre pedagogies propose an explicit interventionist approach aimed at making linguistic knowledge explicit and thus fostering the expansion of meaning potential (Cope & Kalantzis, 1993; Rose & Martin, 2012). This is achieved through a teaching-learning cycle that moves from scaffolded text deconstruction and joint text construction towards individual, independent text construction. This pedagogy is aimed at 'mentoring' semogenic processes –processes of meaning creation–, as the instantiation of the system in the text (i.e. logogenesis) provides the material for ontogenesis (i.e. the development of the system in the individual). At the same time, the development of meaning potential in the individual provides the environment for the development of meaning potential in new texts (Martin, 2005: 125). This means that the conscious access to disciplinary texts will result in the expansion of the students' meaning potential and this potential will in turn result in the production of effective disciplinary texts.

The theoretical framework of SFL provides essential insights into the functional complexities involved in the process of knowledge acquisition and demonstration and it also throws light on the relationship between language and cognition. However, there is a relevant aspect that seems not to be addressed by this model of language and which should be accounted for in order to fully characterize the complexities involved in disciplinary text production and knowledge structuring. The systemic functional conception of language and knowledge describes cognition as mental maps –more precisely semiotic maps– which emerge out of a transformation of experience into meaning. Reference is also made to the expansion of the individual's semiotic potential as meanings are reconstrued and recategorized along time. However, there is no explanation of how the generated semiotic representations become accessible and are likely to be restructured in order to be deployed in new contexts. These mental processes could be accounted for by a model of cognitive development that theorizes on the workings of the human mind. Socially constructed meanings are stored, transformed, retrieved and transmitted by individuals. Thus a mental model underlying the semiotic constructions described by the SFL framework might prove an enlightening complementary perspective to understand the complexities involved in knowledge acquisition and development more thoroughly.

4.3. Towards a complementary account of cognitive complexities

Given the socio-semiotic nature of the SFL model of language, a complementary theory of cognitive development should be one that explains the interaction between mind and environment, without solely focusing on mental processes but also considering the context in which they take place.

Such is the case of the model of Representational Redescription⁴ (RR) developed by the cognitive psychologist A. Karmiloff-Smith (1992, 2002, 2006), who proposes a dynamic view of cognition and explains how mental representations get successively transformed and reconstructed. Such perspective, which takes care of mental processes while being sensitive to external data, aims at reconciling two opposing theories on cognitive development: Fodor's nativism (1983) –which argues for predominantly innate knowledge structures - and Piaget's constructivism (1972a, 1972b, 1983)⁵ –which proposes that learning is domain-general and highly influenced by environmental conditions⁶. Karmiloff-Smith's model explains aspects of cognitive processes that seem to be presupposed but not explained by SFL theory and can thus be articulated with it. Whereas SFL describes the socio-semiotic construal of experience through language, the RR model explains the workings of the mind of the individual that construes that experience. Thus this model of mental functioning can provide insights into the cognitive processes and mechanisms through which knowledge representations become expanded meaning potential.

Karmiloff-Smith's proposal aims at explaining the developmental process by which information that is *in* the mind becomes knowledge *to* the mind. The process of RR holds not only for knowledge in which language is involved but also for other areas of knowledge such as physics, mathematics, psychology and so forth. However, this work will concentrate on linguistic knowledge as it is its area of concern.

4.4. Representational Redescription (RR)

4.4.1. General principles

The RR model proposes that the human brain is not prestructured but progressively develops representations via interaction not only with the external environment but also with its own internal environment. These representations are stored in different areas or 'domains', which include subsets or 'microdomains'. For example, the domain of language is made up of the set of representations which sustain that area of knowledge and subsumes microdomains within which we might locate representations of constructs such as those proposed by SFL, e.g., the schematic structure of texts, the thematic structure of clauses and so forth.

Development involves changes in the representations at different times across microdomains and recurrently within each domain. The mind possesses mechanisms to exploit the information that is already stored by re-representing it as a result of its interaction with information in other microdomains, in other domains, and with the environment. These re-representations may occur

⁴ Like other mental model designs, Karmiloff's is a speculative model.

⁵ Piaget's constructivism on the one hand and nativism on the other, in particular the Modular Theory of Mind developed by Fodor were the most widespread conceptions of the workings of the human mind in the 20th century. These two proposals, both of which had great impact on pedagogical design and interventions, have different explanatory scopes and limitations (Defagó, 2012) and hold views which have been considered conflicting and sometimes incompatible. Challenging these deeply ingrained beliefs, Karmiloff-Smith takes as the point of departure these two models and offers a new perspective on knowledge development.

⁶ The environment is believed to act as much more than a trigger, influencing 'the structure of the brain via a rich epigenetic interaction between the mind and the physical/sociocultural environment' (Karmiloff-Smith: 1992: 15)

in different formats or in the same format but with different levels of abstraction. For example, linguistic information may be re-represented as an image, a diagram, a figure, or it may keep the linguistic format but in a new representation that captures component parts and patterns of features likely to be deployed in other microdomains or in other domains (Defagó, 2012). It is this process of Representational Redescription that increases the flexibility of the information stored in the mind and that thereby transforms it into knowledge. What this actually means is that the process of RR allows for implicit information to become available and manipulable data that can be purposefully and creatively used in new situations. In Karmiloff's words, RR

...involves a cyclical process by which information that is already present in the organism is made progressively available, via redescriptive processes, to other parts of the cognitive system. In other words, representational redescription is a process by which implicit information in the mind subsequently becomes explicit knowledge to the mind, first within a domain and then sometimes across domains (1992: 18)

It is relevant to mention that although human beings are naturally predisposed for RR, the processes by which intra and inter-domain relationships are created can be triggered by external influences.

4.4.2. Representational formats and knowledge development

The RR model postulates that the human representational system is far more complex than a mere dichotomy between implicit and explicit representations, usually advocated by learning theorists (e.g. Piaget, Fodor). Karmiloff-Smith argues that there are more than two kinds of representations, with intermediate levels between implicitly stored procedural information and verbally storable declarative knowledge. For the researcher, cognitive development involves representation and re-representation of knowledge at four different levels, each one with a different representational format:

1. Implicit (I)
2. Explicit-1 (E1)
3. Explicit-2 (E2)
4. Explicit-3 (E3)

Although these levels are hierarchically presented, there is no fixed directionality between them, which accounts for the dynamic and flexible nature of mental processing. Whereas some information is first implicit and becomes explicit knowledge after being redescribed, other is obtained explicitly and becomes later more autonomous. Apart from the lack of fixed sequentiality, the levels are also flexible in the sense that they can be skipped (i.e. representations may be redescribed from I directly to E3). According to this model, learning seems to take two complementary directions:

automatized behavior on the one hand and explicitation and accessibility on the other, both being relevant for cognitive change.

It is hypothesized that at **level-I**, representations for any microdomain are just added to existing ones without being related to them. That is, new representations are independently stored and cannot be linked to representations in other microdomains within the same domain, or in a different domain. Besides, information at this level is encoded in the sequence in which it was stored. This means that although the information may enable consistent successful performance on a specific microdomain, it cannot be flexibly used nor is it available for problem solving in new situations. Such might be the case, for example, of level-I linguistic representations of the notion of thematic structure, which may enable a student to successfully give thematic prominence to desired clause constituents but not necessarily to produce a text in which the thematic configuration of the clauses contributes to information flow. That is, information embedded in level-I representations will need redescription into other formats so that its component parts become accessible to intra-domain links, a process that will ultimately lead to inter-representational flexibility and creative problem-solving capacities.

The RR model proposes a subsequent reiterative process of representational redescription that involves levels **E1, E2, and E3**. **E1** representations are reduced representations that lose many of the details of the representations coded in level-I. At this level, for example, a learned content such as the thematic structure of the clause may be manipulated independently of the original sequencing and wording. Unlike level-I representations, they are not bracketed, which means that the component parts are open to potential intra-domain and inter-domain representational links. That is, Level E1 involves explicitly defined representations that can be manipulated and related to other redescribed representations, which does not mean availability to conscious access and verbal report⁷. Note then that 'explicit' in E1 does not mean consciousness or verbal reportability but only a certain degree of relatibility. This emergent availability of representations may lead to new errors that might have been overcome in the previous level, procedural mastery being achieved. At level **E2**⁸, it is hypothesized, representations are available to conscious access but not for verbal report. We might think, for example, of instances in which individuals can resort to alternative formats such as diagrams, drawings or figures to represent ideas or concepts that they cannot yet verbalize, which is only possible at level **E3**. For Karmiloff-Smith the linguistic format is the most abstract of all, and thus shared by all areas of knowledge. This idea seems to coincide with Halliday's consideration of language as the most distinctive semiotic system 'in that it also serves as an encoding system for many (though not all) of the others' (1978: 2).

Closely linked to our area of inquiry – knowledge about language – is Karmiloff-Smith's speculation about the representations of knowledge learned directly in linguistic form. Even though these representations do have linguistic packaging, they are not yet likely to be flexible and manipulable.

⁷ One of the examples mentioned to illustrate this level of representation is the regularization of irregular verbs.

⁸ Karmiloff-Smith contends that it is difficult to obtain empirical evidence to justify E2. Therefore, although the researcher hypothesizes about the existence of this level, she tends to refer to E2/E3 together.

In fact, they are stored in linguistic format but in level-I, adopting the features of the representations at this level –inflexibility, sequentiatlity, and so forth. Although in the case of linguistically accessed information individuals may be able to verbally retell that information, this is likely to be a process of reproduction of information as it was stored in the mind (see figure 4.5 above). Only if that representation is redescribed will it become knowledge to the mind and thus ready to be used in creative ways, in new contexts, for new purposes. For example, if a student has verbal access to the conceptualization on a linguistic phenomenon such as reference, s/he is likely to store it directly in level-I and thus be able to reproduce that knowledge keeping at least some of the original lexicogrammatical choices and following the textual sequence in which it was learnt. However, s/he will not be ready to manipulate that knowledge to respond to the demands of a new context. Such might have been the case of some of the texts analyzed in this study, in which knowledge restructuring was required. As was shown in the previous chapter, some students structured the information in their texts as a classifying report while the expected structuring was that of a descriptive report. What could be speculated is that even though those students might have understood the contextual constraints and requirements of the task instructions, they may not have been able to comply with those demands because of not having yet redescribed the knowledge in their minds. Something similar may have happened in those cases in which students were not able to provide examples or to elaborate on them, as relating theoretical concepts to concrete examples also requires knowledge flexibility and availability, only achievable if redescription takes place.

The core contention of Karmiloff- Smith's theoretical perspective is that these various redescriptions create in the mind multiple representations of similar knowledge at different levels of detail and explicitness, expanding and enriching human cognition. The notion of multiple encoding present in the model –the multiple levels at which the same knowledge is re-represented- is relevant as it seems to be a constitutive feature of the human mind. In fact, 'development does not seem to be a drive for economy. The mind may indeed turn out to be a very redundant store of knowledge and processes' (Karmiloff-Smith, 1992: 23)

4.5 On the contributions of the RR model

Although functional and cognitive perspectives are usually considered epistemologically opposed, I have tried to show that the SFL and the RR models may be regarded as complementary. In particular, I am interested in this complementarity in relation to institutionalized processes of learning disciplinary knowledge, which almost exclusively occur through language. Thoroughly understanding these processes involves not only understanding the functional nature of language as a resource for making socially constructed meanings, but also grasping the complexity of the mental processes implicated in the construal of those meanings.

The SFL model provides a rich and illuminating description of the ways in which language makes meanings in a dialectical relationship with context. This theoretical framework describes how an

individual's meaning potential is expanded as s/he learns the system⁹ and its global dimensions of organization: context, instantiation, metafunction, stratification, realization. These notions involve and presuppose cognitive dimensions that are partially but not fully accounted for by the model, simply because it is not the focus of this theoretical perspective. As I have tried to show, this gap could be bridged by the model of Representational Redescription developed by the cognitive psychologist A. Karmiloff-Smith, which explains the cognitive mechanisms that drive human cognition. In particular, the model theorizes about the types of representations involved in learning processes, and about the mechanisms of redescription of those representations, which lead to the transformation of information into flexible, creative and contextually manipulable knowledge.

I believe that the articulation of these two models can fruitfully inform pedagogical practices. Disciplinary knowledge construction involves both functional and cognitive dimensions of language, and thus knowledge about language as a semiotic system and also as a cognitive domain are essential grounds for the development of successful teaching interventions.

⁹These dimensions of organization emerge gradually in ontogenesis (Matthiessen et al., 2010).

FINAL CONSIDERATIONS



Writing is a complex task and even more so when it is tied to the construction of disciplinary knowledge. This competence is developed within the framework of formal education, so if students fail to produce appropriate written texts, the institution cannot but take responsibility for the situation. This agreed upon, the following debatable issue is naturally whether there is an educational level that should be particularly in charge of literacy development. Is it primary or secondary school? Or is it both? Should university be involved in literacy teaching? The answers will depend on our understanding and conceptualization of literacy. If we understand reading and writing as socially situated practices that influence and are influenced by their context and change accordingly, then the answer is that all actors of the formal educational process should be involved in literacy development, independently of the level and the discipline. The extent and degree of that involvement might open up further debate, which, though of extreme relevance, will not be pursued here.

Writing is about language. Written knowledge is constructed in and through language, so talking about writing –more precisely about disciplinary writing in this case- without talking about the linguistic system itself appears to be hardly conducive to accurate, thorough diagnosis and effective intervention. Thus relying on a model of language seems to be essential for those interested in literacy issues. The theoretical framework developed by SFL proves to be rich, useful and productive for the development of linguistic education as it establishes systematic and consistent links between language and context, accounting for the functional dimension of the system. However, the ability to appropriately and successfully construe written knowledge presupposes the mental processes through which an individual gradually comes to possess that knowledge, making it his/her own and thus being able to use it purposefully in new contexts. It seems profitable then to complement this socio-semiotic approach to language with an understanding of how knowledge develops in human minds, an insight provided by the cognitive theory of RR introduced in the previous chapter. Such articulation should enrich our comprehension of the aspects involved in written knowledge acquisition and production and inform successful pedagogical procedures. These two dimensions should be taken into account to scaffold the process that goes from knowledge acquisition to knowledge demonstration.

Writing about the concepts and content of a subject is part of a learning process that starts with students' access to the texts in which those meanings are constructed. Disciplines organize their knowledge through typical genres that are instrumental for their conceptualization. Thus an explicit analysis of the schematic structures those genres generate and the configurations of systematic language choices that realize them is essential to enable students to access those meanings. Systematic reflections on the disciplinary purpose of the texts and on how that purpose is linguistically realized constitutes a key resource for academic literacy, as it fosters

the development of schemata for these conventionalized forms of language use (e.g. Hyland, 2004). The methodological approach designed by the genre pedagogy constitutes a key resource for literacy development. Interestingly, the 'reading to learn' pedagogy (Rose & Martin, 2012) revolves around learning tasks that are carefully designed and guided so that learners develop language awareness, making the links between context and text visible. These tasks are aimed at empowering students for reading (and then writing) effectively on curriculum topics as they are assumed to promote different levels of comprehension that increase in the degree of complexity: literal, inferential and interpretive.

Literal comprehension is concerned with the recognition of patterns of meaning at clause level, inferential comprehension with the identification of patterns of meanings across the text, and interpretive comprehension with the connections between meanings in the text and the context it refers to – its social purpose, the subject matter and the relations it enacts between people. But writing effectively also involves the ability to redescribe the construed representations so that they become flexible, manipulable and available to be appropriately used in new contexts. For example, learning how an explanation of a linguistic phenomenon is construed does not necessarily mean being able to immediately do the same with a different linguistic phenomenon. Or, as we have seen in some texts in the corpus, learning about how a linguistic phenomenon is conceptualized does not directly imply the ability to do different things with that information, to 'package' it into different structural formats. It is for this reason that I suggest that this methodological approach could be articulated with the model of cognitive development proposed by Karmiloff-Smith. With its explanations of the mental processes that lie behind knowledge development, such perspective can illuminate the ways in which the semiotic representations that students build as they access texts get stored in their minds, and how the expansion of meaning potential takes place. This theoretical framework could inform task design and provide insights for the development of activities that foster representational redescription, or in Karmiloff-Smith's (1992) words, the transformation of information *in* the mind into knowledge *to* the mind. A proposal for the articulation of these two perspectives is out of the scope of the present study but might open up new lines of inquiry.

As already stated, writing to demonstrate learning in a discipline does not occur freely but in the context of an assessment task designed by teachers. This brings about a new contextual dimension that also needs to be made explicit. What is the purpose of this new situation? What type of interaction is it? What are the restrictions imposed? What are the constraints that the written mode imposes? The answers to these questions cannot be presupposed. Making them visible, discussing them, working out the relationships between these contextual factors and linguistic dimensions is also an essential aspect of disciplinary writing in undergraduate education. The task itself should become the object of analysis as its wording encodes both field restrictions and the type of doings required, with expected stages and phases. If this is not understood, the response on the part of the students is likely to be no more than a guessing game. It is important to remember, though, that even if these conditions are grasped, there will be no appropriate response unless the required knowledge has become manipulable and flexible enough so that it can be adjusted to this new context and reorganized according to the new requirements. A further functional

complexity that creates great difficulty for students and should thus be worked upon is related to the specificities of the written mode of meaning. The linguistic choices typical of the written mode and their relationship to the contextual aspects of context independency and delayed feedback should be uncovered as they constitute a major obstacle in the production of cohesive texts.

Disciplinary writing is a social activity which presupposes cognitive processes of knowledge development. Thus a thorough understanding of this activity and the ways in which its development can be fostered should help address both its functional and cognitive complexities. The functional approach enlightens the ways in which language construes knowledge as a socially situated activity. The cognitive perspective, on the other hand, looks into the mental processes involved in knowledge development, accounting for the relevance of repeatedly entering 'the same room through different doorways' so that ultimately knowledge becomes usable across different settings (Gardner, 1991). It is to be hoped that the results of these explorations will be found useful in other disciplines, in other languages –including L1-, and at other educational levels.

APPENDICES



APPENDIX A

Table 1 – Texts with the expected stages/phase (27)

Text N°	Expected schematic structure						Others
	stages	(Classification)	Description				
	phases		similarities	differences	examples	elaboration	
3		✓	✓	✓	✓	✓	
4			✓	✓	✓	✓	
5			✓	✓	✓	✓	
6		✓	✓	✓	✓	✓	
7		✓	✓	✓	✓	✓	expansion
8		✓	✓	✓	✓	✓	
9			✓	✓	✓	✓	
10			✓	✓	✓	✓	
11			✓	✓	✓	✓	
14			✓	✓	✓	✓	
15		✓	✓	✓	✓	✓	
17		✓	✓	✓	✓	✓	
18			✓	✓	✓	✓	
26			✓	✓	✓	✓	
27		✓	✓	✓	✓	✓	
28			✓	✓	✓	✓	
29		✓	✓	✓	✓	✓	
32		✓	✓	✓	✓	✓	
33			✓	✓	✓	✓	
35			✓	✓	✓	✓	
36		✓	✓	✓	✓	✓	
42			✓	✓	✓	✓	
44		✓	✓	✓	✓	✓	
46		✓	✓	✓	✓	✓	
48			✓	✓	✓	✓	types of endophoric r.
49			✓	✓	✓	✓	
50			✓	✓	✓	✓	

Table 2 - Texts without the expected stages/phases (24)

Text N°	Expected schematic structure						Others
	stages	(Classific.)	Description				
	phases		similarities	differences	examples	elabor.	
1							endophoric+exophoric ref.
2					✓	✓	endophoric+exophoric ref.
12		✓	✓	✓			
13		✓			✓	✓	endophoric+exophoric ref.
16		✓			✓	✓	endophoric+exophoric ref.
19			✓	✓			
20		✓		✓	✓	✓	endophoric+exophoric ref.
21					✓	✓	endophoric+exophoric ref.
22		✓	✓	✓	✓		
23			✓	✓	✓		
24					✓	✓	endophoric+exophoric ref.
25		✓			✓	✓	endophoric+exophoric ref.
30					✓	✓	endophoric+exophoric ref.
31			✓	✓			
34			✓	✓			
37			✓	✓			
38					✓	✓	endophoric+exophoric ref.
39			✓	✓			
40			✓	✓			
41		✓	✓	✓	✓	✓	endophoric+exophoric ref.
43		✓	✓	✓	✓	✓	endophoric+exophoric ref.
45				✓	✓	✓	
47			✓		✓		
51		✓					endophoric+exophoric ref.

PHASES OF ENDOPHORIC AND EXOPHORIC REFERENCE

I. WITH CLASSIFICATION (7)

Text 13

Classification	<p>Reference can be endophoric and exophoric. The former type of reference can be a cohesive device that is used to refer to an element explicitly mentioned in a discourse. Endophoric reference can be anaphoric –when it points at an element that was mentioned earlier in discourse- or cataphoric- when it points at an element that will be mentioned later. For example, in ‘I met a girl. Her name is Jane’, ‘her’ makes anaphoric reference to ‘a girl’, whereas in ‘He told me who she is. She’s his girlfriend’, ‘she’ makes cataphoric reference to ‘his girlfriend’. On the other hand, exophoric reference points at an element that is part of the communicative context of the discourse’s occurrence, and so it can never be a cohesive device. For example: ‘I don’t know where I left my wallet’; in this case, ‘I’ and ‘my’ makes reference to the speaker.</p>	} type 1: endoph. reference
Types		} example elaboration
		} type 2: exoph. reference
		} example elaboration

Text 16

Classification	<p>References create texture in texts, which is the relation between coherence and cohesion. There are two main references that can be made in a text, endophoric and exophoric reference. The first one, creates relations between items within the text, that is to say, an special word is used (a subordinator, a pronoun, etc) to refer to another item in the same text anaphorically or cataphorically. For instance, John is my friend. <u>He</u> is a nice guy. The pronoun ‘he’ refers back to ‘John’. On the other hand, exophoric reference creates relations between the situational context of a text; for example, if you are in a conversation and your friend says ‘I’d like to go to the cinema this weekend, would you come with me?’, the words ‘I’, ‘you’, and ‘me’ refer to entities which are outside the text.</p>	} type 1: endoph. reference
Types		} example elaboration
		} type 2: exoph. ref.
		} example-elaboration

Text 20

Classification	<p>Reference is the grammatical cohesive device that gives unity to a text by resourcing to an item that has already been given in the text or from the external context. The former type of reference is called the endophoric reference, which can refer to an item that has given in the text, anaphoric reference; an element which is referred to subsequently within a text, which is cataphoric reference; and esphoric reference in which the presupposing item comes immediately after the presupposed. Reference items can be resourced from the context, which is the situation in which the text is situated and its name is exophoric reference. The elements used to refer to the context of the text in which the referent item is immerse differ from those of the endophoric reference. For example, an item used to denote an endophoric reference can be an adverb like 'here' or 'there', which make reference to a particular place from the situation from outside the text. In contrast, the elements that are used to refer to elements within the text could be 'it' or 'she', referring to participants already mentioned in the text.</p>	type 1: endoph. reference
Types		type 2: exoph. reference
Expansion		difference
		example-elaboration

Text 25

Classification	<p>Reference can be endophoric or exophoric. Endophoric reference is the relationship between two items, which one of them must be presupposed by the other. For instance, in 'Sheila is not at school. On the contrary, she is at home', the personal pronoun 'she' refers back to 'Sheila'. Endophoric reference takes place within the text, whereas exophoric reference has to do with the social and cultural context in which a text is produced. For example, in 'I arrived at home yesterday', it is not possible to infer 'yesterday'. If it is not in the text, we will have to find out when the text has been written.</p>	type 1: endoph. ref.
Types		ex.-elabor.
		type 1& type 2
		ex.-elabor.

Text 41

Classification?	<p>Reference is a device to achieve cohesion in a text. On the one hand, we can find endophoric reference which refers to information contained inside the text. It is divided in anaphoric reference, when the referent has already been mentioned (The boy shouted and then <u>he</u> started crying), or cataphoric reference, when the referent lies ahead (<u>It</u> is said that women are sensible). On the other hand, we have exophoric reference, which is realized by the reader in the immediate context of the text. For example: 'The government is placing the economy in a difficult position'. The reader should know which government through the context of the text. So both endophoric and exophoric reference help to avoid repetition and to give cohesion to a text, but they differ in where the referent is founded.</p>	type 1: endoph. reference examples
Types		type 2: exoph. reference - ex. elabor.
Expansion		simil. & diff.

APPENDIX B

Text 43

Classification	<p>We can find two kind of reference in a text: the exophoric reference and the endophoric reference. The former is expressed in clauses that reference must be present in the outside world. In other words, the exophoric reference refers to the context in which the meaning of the clause is immersed. For example: 'Look at it!' is a clause that without context it would be difficult to know what is being looked at. That is exophoric reference. Regarding the latter, the endophoric reference, we can say that it is another type of cohesive device that refers back to something that has been said in the same text, which means that occurs between clauses. For example: 'I bought two books. They are interesting and colourful'. The pronoun 'they' refers back to books. In conclusion, we can say that both endophoric and exophoric references are lexical cohesive devices but they differ in the type of reference they represent in texts.</p>	type 1: exoph. ref.
Types		ex. – elabor.
Expansion		<p>type 2: endoph. ref.</p> <p>ex. - elabor.</p> <p>simil. & diff.</p>

Text 51 (no examples-elaboration)

Classification	<p>In texts, there are some cohesive resources and one of them is reference. When we talk about text reference we are referring to endophoric reference, that means we use certain kinds of references in order to talk about things that are inside the text. These things (names, objects, etc) can be mentioned before the referent (anaphoric), after it (cataphoric), in different clauses, or they can be insert in the same clause (esphoric reference). On the other hand, there is an external reference that is called exophoric and it refers to a shared context (homophoric). Exophoric reference points out things that are outside the text and that the referents could be in the external world (the reader, the general public, etc.)</p>	type 1: endophoric reference
Types		type 2: exophoric reference

II. WITHOUT CLASSIFICATION (6)

Text 1 (no example-elaboration)

Types	<p>Endophoric reference has to do with the relation between items that are inside the text, but in different clauses. These items cannot be fully decoded except for referring to another item mentioned in the same text. It makes the text cohesive.</p>	type 1: endoph. reference
	<p>As regards exophoric reference, it has to do with coherence since the reference is in the context and not within the text. It helps establish a relation between the text and the situational context (what is being said, the people involved in the situation, and the role language plays in the interaction).</p>	type 2: exoph. reference

Text 2

Types

Endophoric reference is realized through the interpretation of a lexical item within the text by recouring to another term, which may precede or follow the content word (referent) it is referring to, for example in 'these effects generally decline by the third year, if not sooner', the adverb sooner is an instance of endophoric reference since it points back to 'by the third year', which is information that is found in the text itself. On the other hand, exophoric reference is realized through the context in which a text is produced, that is to say, part of the information we as readers/listeners need, has to be found outside the text, such as in the sentence 'Look at that!', the reader/listener has to turn to the context in which the interaction is taking place so as to retrieve the meaning of the demonstrative pronoun that.

type 1: endoph. reference

example elaboration

type 2: exoph. reference

example elaboration

Text 21

Types

Endophoric reference: reference that we can find inside the text. Exophoric reference are reference outside the text.

types 1&2

In endophoric reference we use a word to refer to something that has been mentioned or is going to be. For example, 'Billy made a good work. He is very efficient'. In this case 'he' refers to Billy. On the other hand, exophoric reference does not need to have been mentioned. For example, 'he is very efficient' ? and 'he' can be part of the exterior.

type 1: endoph. ref

ex-elabor.

type 2: exoph. ref.

ex. elabor.

Text 24

Types

Exophoric reference is the means by which elements that belongs to the external situation of the text are mentioned within the text. The situational elements, such as participants or circumstances inferred by the context. For example, the use of the pronouns I, we (inclusive we) and you in the text refers to the sender and the readers or hearers that receive the message. Another type of reference is endophoric reference, which refers forth and back to the different elements presented in the text to create unity and cohesion. The reader or hearer can retrieve the meaning of this elements by turning to another element in the same text (referent or replaced word). When we refer back to an element in the text, we call it anaphoric reference but when we refer forward, we call it cataphoric reference. An example of this type of reference is repetition, synonymy, among other devices and methods.

type 1: exoph. reference

ex.-elabor.

type 2: endoph. reference

example

APPENDIX B

Text 30

Types

Exophoric reference may be retrievable from the immediate context of situation. It makes reference to the shared immediate context. It is non-cohesive. For example, if somebody says to you 'Put it there' and we are in the same place at the same time, you will be able to decode 'it' as referring to whatever object that person is pointing at.

} type 1: exoph. ref.
ex.-elabor.

Endophoric reference, on the other hand, may be retrievable from elsewhere within the text. Frequently, the identity of the participants have been given at an earlier point within the text. It is endophoric reference which creates cohesion. For example: 'Although Jhon and Susan fight all the time, they still want to go on with their relationship'. The personal pronoun 'they' refers to 'Jhon and Susan', and it can be inferred from within the text.

} type 2: endoph. ref.
ex. – elabor.

Text 38

Types

Endophoric reference is a cohesive device that allows to create unity in a text. It is cohesive because we can retrieve the meaning of the item by going back or forwards in the text and finding its referent. In the following clause complex 'John Stuart was a magnificent businessman because he thought everything carefully' we can retrieve the meaning by going back and finding the referent: 'John Stuart'. Endophoric reference can also happen between different sentences as in 'John Stuart was a magnificent businessman. He used to think everything carefully'. The referent is still the same: 'John Stuart'.

} type 1: endoph. reference
example elaboration

Exophoric reference is not a cohesive device since it does not contribute to the unity of the text. The meaning of the item can be retrieved from the context, not from the text itself. In the clause complex 'We should take care of the environment, otherwise it will take revenge on us'. In order to retrieve the meaning of 'we' we must resort to the context outside the text.

} type 2: exoph. reference
ex.-elabor.

APPENDIX C

I. ABSENCE OF EXEMPLIFICATION AND ELABORATION OF EXAMPLES IN TEXTS WITH PHASES OF SIMILARITIES AND DIFFERENCES ¹ (7 -1 with classification-)

Text 12

Classification { There are some similarities and differences between endophoric and exophoric references. Both endophoric and exophoric do not have a meaning on their own right, so the reader will have to retrieve the referent in the surrounding text in the case of endophoric reference and in the case of exophoric reference, the reader may have to retrieve the referent from the situational context. } similarities
Description } differences

Text 19

Description { As regards the similarities of endophoric and exophoric reference, both are grammatical devices that help a text be a unified semantic whole. Another similarity is that exophoric reference (not always) can be identify inside the text (for example, if the text have the time or place explicit) and endophoric is always inside the text (it may be anaphoric or cataphoric depending on if the referent is before or after the reference). However, the main difference between those types of reference is that endophoric reference is always inside the text but exophoric reference refers to the situation (time, place). Besides, endophoric (and exophoric) reference gives the text cohesion but exophoric also gives coherence, that is, the relation to the extra context of the discourse. } similarities
} differences

Text 31

Description { Reference words are used in a text in order to keep track of the referent without repeating the same entity. We can retrieve the referent within the text (endophoric reference) or it can be outside of it (exophoric reference). Endophoric reference, among other classifications, can be anaphoric, when the referent is mentioned before or it can be cataphoric, when the word that refers to has not been mentioned yet. Endophoric reference can be cohesive if the referent and the reference appear in different clauses. In contrast, exophoric reference is always a non-cohesive device because the entity to refer to must be retrieved from outside the text. } similarity
} difference

¹ See Appendix B- Texts 51 & 1- Texts with phases of endophoric and exophoric reference without examples-elaboration.

APPENDIX C

Text 34

Description	Endophoric reference is one of the linguistic resources that contributes to build up the cohesion of a text whereas exophoric reference consist of pronouns, determiners and adverbs such as we, I, this, that, here, there that point out to elements that are part of the situation. Both endophoric reference and exophoric reference are linguistic resources that belong to grammatical cohesion along with cases of substitution and ellipsis. However, endophoric reference is subdivided into anaphoric and cataphoric reference. Exophoric reference does not have subdivisions.	} difference
		} similarity
		} difference

Text 37

Description	Endophoric and exophoric reference are similar in the sense that they are both devices to make a text cohesive. However, the former refers to cohesion, that is, all the information is found within the text, while the latter refers to situational cohesion, which implies that we should go outside the text to make sense of the text.	} similarities
		} differences

Text 39

Description	Both endophoric and exophoric reference help the writer to make a text coherent; that is, to provide semantic ties which result in a unified whole. However, they vary greatly in terms of the referents they stand for. In the case of endophoric reference, it points to elements that are mentioned in the text, either anaphorically or cataphorically. Furthermore, endophoric reference not only provides coherence to the text but also cohesion, since it helps create a semantic unity, and at the same time it provides linguistic ties between the different participants that appear in a text. On the other hand, exophoric reference points to elements outside the text, that is, elements that are part of the situational context. Consequently, it cannot be considered as a cohesive resource, because it doesn't create linguistic unity between the elements along the text.	} similarities
		} differences

Text 40

Description	Both endophoric and exophoric reference have a referent form. While endophoric reference refers/points to an identity in the text, exophoric reference points to an identity that is outside the text. Endophoric reference is formed by two further references: 1) anaphoric (whether it pints back to an identity) or 2) cataphoric (whether it points to a forward identity).	} similarities
		} differences
Expansion		} endoph. reference

II. ABSENCE OF ELABORATION OF EXAMPLES IN TEXTS WITH PHASES OF SIMILARITIES AND DIFFERENCES (2 –1 with classification-)

Text 22

Classification	{	Reference is one of the cohesive devices used by grammatical cohesion to create unity and uniformity in a text. Reference can be either endophoric or exophoric. Both share a relation of identity, that is to say, the grammatical item that performs these functions refers to another item, and the reader must retrieve the latter to find out the identity of the former. It is 'where' the reader needs to go to find out this identity that makes the difference. While in endophoric reference, the referent is within the text, in exophoric reference the referent is outside or in the surroundings of the text. To illustrate these ideas we can take into account the following examples: 'Paul bought a house. <u>It</u> is beautiful'. 'Things are difficult at home <u>now</u> '.	}	similarity
Description			}	difference
			}	example

Text 23

Description	{	The difference between endophoric and exophoric reference are that in the former the reference is intralinguistic, is in the text, and in the latter the reference is extralinguistic which means that is not the text.	}	differences
		The similarity is that inside endophoric and exophoric can be non-cohesive reference. In endophoric reference there is the esphoric reference. It is non-cohesive and it is in the text but in the same clause.	}	similarities
		In exophoric reference is the homophoric reference which is non cohesive and makes reference to the culture.	}	
		Illustration of the differences:	}	
		I saw the girl <u>there</u> , in the shop. (endophoric reference)	}	examples
		I saw the girl there, while we were talking (exophoric reference)	}	
	Illustration of the similiarities:			
	<u>The</u> girl <u>was</u> to the shop and bough tomatos (esphoric) non-cohesive			
	The sun has suddenly appeared (homophoric reference) non-cohesive			

APPENDIX D

ABSENCE OF SIMILARITY PHASE (1)

Text 45

Description

The difference between endophoric and exophoric reference is that endophoric reference is the one found inside the text. For instance, in the text when it says: 'It seems to get at the causes', it refers back mindfulness might be really important. Also, in the text when it refers to the decline of cognitive control. 'This happens among healthy adults'. This refers back to the decline noticeably in the 70s and 80s. On the other hand, exophoric reference is the reference that cannot be tracked in the text but outside of text. For example, in the text in the first paragraph the author writes: 'the X-box'. This is an element that has no referents present in the text but that can be inferred from everyday life or the general knowledge of the technological world.

} difference
example
elaboration

} difference
example
elaboration

ABSENCE OF DIFFERENCE PHASE (1)

Text 47

Description

Reference, either endophoric or exophoric, is a device that consists of making reference with one lexical item (reference) to other lexical items (referent) that has been mentioned beforehand or that will be mentioned later on. In other words, in order to understand the meaning of the reference, it is necessary to retrieve the meaning from other parts of the text or outside it. Furthermore, if the referent is within the text and before the reference, it is called anaphoric reference. For example, 'when you are in a foreign country, you can other cultures' (exophoric reference)/ 'I passed the exam. It was easy'. (endophoric personal anaphoric reference). If the referent is within the text, it is called endophoric reference. If the referent is outside the text, it is called exophoric reference.

} similarity

} examples

} labels

APPENDIX E

TEXTS WITH ALL EXPECTED PHASES

I. WITH CLASSIFICATION (12)

Text 3

Classification

Both endophoric and exophoric reference have some similarities and one difference. As regards similarities, they give texture to texts. They both use the same types of words to show reference and they help us, as readers or listeners, to retrieve information. The only difference they have is that endophoric reference refers to the elements within a text and exophoric reference refers to the elements outside the text, its context. These two types of reference can be seen in the sentence 'We all need to protect the world as to live peacefully in it' where the personal pronoun 'we' stands for an element outside the text (we as human beings), and the personal pronoun 'it' points back to 'the world'.

Description

similarities

differences

example
elaboration

Text 6

Classification

There are certain differences and similarities between endophoric and exophoric reference. To begin with, in both cases we have to find some referent to understand what we are reading. Therefore, it is essential to have a context. As regards the differences, endophoric reference makes reference to a word or clause within the text, that is to say, it establishes a textual reference. On the other hand, the referent of the exophoric reference is outside the text so it establishes a situational reference. For example: 'Global warming is affecting the whole humanity. It will be a huge problem for the next generations'. 'It' is an endophoric anaphoric reference, and if we say: 'Global warming is affecting us', the 'us' is an exophoric reference because it cannot be understood within the text.

Description

similarities

differences

example
elaboration
example
elaboration

APPENDIX E

Text 7

Classification	<p>Exophoric and endophoric reference are two similar, yet different ways in which we refer to other items. As regards their similarities, endophoric and exophoric reference have the same purpose. In other words, they are both ways in which we can refer or make mention to another entity or item. They are also similar because they use the same kind of word: reference words, words that are devoid of meaning and cannot be fully understood unless they are replacing another. However, endophoric and exophoric reference are also different. While exophoric reference is used to point to an entity outside the text, endophoric reference is used to point to another item inside the text. The first case would thus be a non-cohesive use of reference as can be seen in the following example: 'He broke the vase'. In this case, we would need to know the external context to know who 'he' is. Endophoric reference, on the other hand, is a cohesive use of reference, as can be seen in 'I love my dog. He is the best.' 'He' refers to the item 'my dog'. Thus, endophoric and exophoric reference have the same root function but differ as regards what they refer to.</p>	similarities
Description		differences
		example elaboration example elaboration
		expansion

Text 8

Classification	<p>Endophoric and exophoric reference have differences and similarities. As regards differences, endophoric references relates one item of a text to another that can be previously mention, or it will be mentioned sooner. For example, Mary lives in Barcelona[...] . She loves it'. In this case 'she' is referring to Mary, who was previously mention. We call this type of reference 'anaphoric'. In the case of 'the effects of this illness [...] nausea and headaches', the item 'the effects' is referring to 'nausea and headaches' that is mentioned afterwards in the text. As regards exophoric reference, one item in the text is referring to one item outside the text, such as in the case of 'You are the killer!', because 'you' refers to one item outside the text, more probably the reader. Another difference is that endophoric reference can be cohesive or non-cohesive. However, exophoric ones are always non-cohesive. As regards similarities, both endophoric and exophoric references contributes to the cohesion of the text, because items bind it together as a unified whole.</p>	difference
Description		ex. – elabor.
		ex.-elabor.
		ex.- elabor.
	difference	
	similarity	

Text 15

Classification	<p>Endophoric (or textual) reference and exophoric (or situational) reference share both similarities and differences. On the one hand, both endophoric and exophoric reference contribute to the property of texture and they can both be classified as pronominal, comparative or demonstrative. On the other hand, endophoric reference is the cohesive device while exophoric reference is not. Texture is what differentiates a text from a non-text, and, to achieve it, a text must present unity among its internal components (one instance of this unity is endophoric reference) and with its situational context (exophoric reference). Both can be pronominal (in endophoric references, we can use a word such as 'she' to talk about a female participant previously introduced in the text while in exophoric reference we talk about a female nearby), demonstrative ('this chair' can refer to a previously mentioned chair in endophoric reference or a chair both the speaker and hearer can see in exophoric reference), and comparative (I can say 'you are taller' and the hearer would assume the rest from the context, or in a text one could read 'you are taller than Mr. Johnson' in written dialogue and 'taller' would refer back to a previously mentioned Mr. Johnson). Exophoric reference is a non-cohesive device because it does not contribute to internal unity, instead it refers to the situational context.</p>	similarities
		difference
Description		similarities
		examples and elaboration of similarities
		expansion of difference

Text 17

Classification	<p>Endophoric reference and exophoric reference are similar and different in many ways. The former is used to make reference to a lexical item, phrase or clause that is inside the text. For example, 'He is <u>the</u> love of my life', the personal reference <u>the</u> is pointing to love, which is inside the text. On the other hand, exophoric reference points to a referent that is outside the text. In the previous example, the pronoun 'he' makes reference to a person who wasn't mentioned in the text, but it is implied in the context. As regards similarities, both of them can have non-cohesive reference.</p>	difference ex.-elab.
Description		difference elab.
		similarity

Text 27

Classification	<p>In order to know how the referent of a word is found in a text, we need to learn not only the similarities but also the differences between endophoric and exophoric reference. Both endophoric and exophoric reference are cohesive devices that are used to make the text more comprehensive. They belong to the grammatical cohesion that a writer uses in a text. However, endophoric reference occurs within the text, and it can have anaphoric reference, when the referent precedes the referring word, for example, 'John has bought a house. <u>It</u> is beautiful'. This 'it' refers to house; or cataphoric reference, when the referent follows the referring word, for instance 'John wrote these sentences. I get up at 6...'. That 'these' refers to the sentences that were written by John. On the contrary, exophoric reference can occur outside the text, which means that we have to decode the extralinguistic meanings. That is the case of 'the sun', where the article 'the' refers to an only member of the group.</p>	similarities
Description		difference example elaboration
		difference ex.-elabor.

APPENDIX E

Text 29

Classification?	<p>In the production of texts, for the reader to follow the line of thought the writer uses procedures to make a cohesive and coherent piece of writing so the use of reference will make the text less repetitive. As regards the similarities between endophoric and exophoric reference, it is necessary the participants in the production, there will be a referent either inside the text or outside. Concerning the differences, while endophoric reference takes place within the text, exophoric reference will occur outside the text and therefore there is a context of production, so sometimes there are some features outside the text which the reader has to work out in order to understand what the writer has developed.</p> <p>For example, in a piece of news we find an adverb such as 'today' and there isn't any reference of the date in the news, the reader has to resort to a feature which is outside the text to work out what date the piece of news was written.</p>	}	similarities
Description		}	differences
		}	ex.-elabor.

Text 32

Classification	<p>What makes text a text is the textual unity (texture) by making some linguistic choices according to situational context. The whole world is represented by the use of the making meaning resource (language) and , consequently, we have to resort to the reference presented in and out of the text. There are some similarities and differences between endophoric and exophoric reference. Both references help a text to be a textual unity by referring to an element that preceeds another, and therefore, they conveys the meaning of the text. However, both references point out to differents meaning relationships among clauses. While exophoric reference resorts to a situational contexts, endophoric reference resorts to a textual meaning relationship. An instance of exophoric reference is illustrated in: 'I don't know what to do now'. That adverb has an exophoric reference related to the situational context of the speaker. Unlikely exophoric, this is an example of endophoric reference, 'Yesterday, I lost my job. I'm unemployed now', that adverb refers to yesterday and the speaker makes a contrast between yesterday and now.</p>	}	similarities
Description		}	differences
		}	examples - elaboration

Text 36

Classification	Endophoric and exophoric reference have similarities and differences which relate them. On one hand, they are both cases of grammatical cohesion. Since they belong to the system of reference which is divided into demonstrative, pronominal or comparative. On the other hand, endophoric reference differs from exophoric reference since it points at some part inside the text , which could be presented previously or after (anaphoric or cataphoric reference), whereas exophoric reference refers to an item outside the text. For instance, the sentence 'I love apples. We bought one kilo of them in the market yesterday' represents a case of endophoric reference since the pronoun 'them' refers back to 'apples' and the pronoun 'we' points outside the text not clearly stating which is the referent.	similarities
Description		differences
		ex.+elabor.

Text 44

classification	Endophoric and exophoric reference share similarities and differences. Endophoric reference always points back or points forward to an element in a text. For example, 'Lily is very sad since she broke up with her boyfriend'. 'She' points back to 'Lily'. Whereas exophoric reference makes reference to an immediate element in the situation which could not possibly be understood by a person who only reads the dialogue between two people. For example, 'Lili, don't go there'. 'There' cannot be understood unless you witness what someone is pointing while saying 'there'. Endophoric and exophoric reference are similar in the sense that both can be expressed with pronominal, demonstrative and comparative references. For example, 'I have two siblings, those kids always make my day', and 'I love those paintings!'. Endophoric and exophoric reference are similar in the sense that both can be expressed with pronominal, demonstrative and comparative references. For example, 'I have two siblings, those kids always make my day', and 'I love those paintings!'.	differences- ex. elaboration difference
Description		example elaboration
		similarity - example

Text 46

Classification	Endophoric reference occurs when we can retrieve the referent from the text and in the case of exophoric reference it occurs when the referent is not in the text but in the context of the text. There are differences and similarities between these two types of reference. As regards the differences we can say that endophoric reference can be cohesive and non cohesive; for example, 'I bought a shirt for tonight party. It is red' (cohesive) and 'The car of my neighbor is brand new' (non-cohesive) while exophoric reference is always non-cohesive; for example, 'The storm has passed and the airports are now open' we can retrieve the referent of 'now' from the context which makes it non-cohesive. As regards the similarities, we can say that the two of them are used as cohesive devices to create unity among the text.	difference example difference ex. - elabor.
Description		similarities

II. *WITHOUT CLASSIFICATION* (15)

Text 4

Description	<p>There is one main similarity between endophoric and exophoric reference, both are ways of referring to things or to objects or subjects. On the other hand, there is one main difference between these two references. As regards endophoric reference, it is a device that creates cohesion since it refers to something within the text. For instance, 'Cognitive control may be defined as emotional self-regulation and the suppression of irrelevant thoughts. It begins to decline noticeably in the 70s or 80s'. In this case the subjective personal pronoun 'it' functions as a endophoric anaphoric pronominal reference since it points back to 'cognitive control', the referent of 'it' can be found within the text. As regards exophoric reference, it does not create cohesion since it does not point something within the text but outside the text. For example, 'This happens because adults have distractions that the mind once would have suppressed'. The meaning of 'this' cannot be decoded since the referent is not in the text, but in the extra textual context, outside the text.</p>	<p>} similarity</p> <p>} difference</p> <p>} example</p> <p>} elaboration</p> <p>} difference</p> <p>} example</p> <p>} elaboration</p>
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Text 5

Description	<p>Endophoric and exophoric reference are similar in the sense that both kinds of reference stands for information that has to be retrieved in order to the text make sense. Endophoric reference is cohesive as the information we need to recover is within the text. In contrast, exophoric reference is an extralinguistic device. Therefore, it is placed outside the text and we can only retrieve the information missing by resourcing to our world knowledge. Endophoric reference refers back (anaphoric ref.) or forward (cataphoric reference) to information given in the text. For example in the sentence 'The book I bought was old. It belonged to the seller's grandfather'. The personal pronoun 'it' makes reference to 'the book' in the previous clause complex.</p>	<p>} similarity</p> <p>} difference</p> <p>} example</p> <p>} elaboration</p>
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Text 9

Description	<p>Endophoric and exophoric reference can be compare in that both types of reference need to retrieve their meaning from something else. For example, Laura was playing in the park with some friends yesterday. <u>We</u> saw a big smile in <u>her</u> face. In this case the <i>pronoun her needs to go back up to Laura to work out its meaning. In the same way, the pronoun we</i> has no meaning by its own, we can infer that it refer to the writer and someone else who saw Laura playing in the park. However, these two types of references differ in that endophoric reference retrieve the meaning of the reference word in the text, from what has been written, while to retrieve the meaning of an exophoric reference we have to go outside the text because the meaning of the reference word is not explicit.</p>	<p>} similarity</p> <p>} example</p> <p>} elaboration</p> <p>} difference</p>
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Text 10

Description	Endophoric and exophoric reference are two types of grammatical cohesion, but they are said to be non-cohesive since they do not create a link between clauses in a text but they just give meaning to the context in which a text is produced. In the case of endophoric reference we can find that the referent is in the same clause of the reference word and not across clauses. To illustrate this point we can mention: 'The book of that famous author is available now'. If we want to know what is the referent for 'the' we can find it in the same noun group 'of that famous author'. When we talk about exophoric reference the referent is not explicit in the text but it is part of the context that the interlocutors share, for example: 'You can wash and steam the apples'. In this case 'you' is referring to the reader or the people targeted in the text.	}	similarity
			difference
		}	example
			elaboration
		}	difference
			example
}	elaboration		

Text 11

Description	The similarities between endophoric references and exophoric reference are that both represent cases of grammatical cohesion and both are used in order to keep track of the participants within a text for facilitating the reader/listener's understanding. However, they differ from their functions and features. While exophoric reference points out participants from the situational context (outside the text), endophoric reference refers to participants into the text (identifiable ones). What is more, endophoric reference may divide into three categories, such as anaphoric, cataphoric and esphoric reference. Example of exophoric reference: 'We are living under a culture of fear' (In this case 'we' refers to us, human beings as part of the society). Example of endophoric reference: Sheila likes reading. <u>Her</u> books are the most valuable items. ('her points out to Sheila').	}	similarities
			differences
		}	ex. - elab.
			ex. - elab.

Text 14

Description	Endophoric and exophoric reference are both instances of grammatical cohesion. They consist on an element which refers back to another element in order to make sense. In the following example 'Lucia is my sister. She owns this cat', the personal pronoun 'she' refers back to 'Lucia'; in other words, without the referent (Lucia) we'd not know who the cat belongs to. The difference between endophoric and exophoric reference is that there is endophoric reference when the elements are within the text (I bought a car. It is green) while the exophoric reference refers back to an element outside the text (I 'm going to read a good book). Another difference is that while the endophoric reference may be cohesive (the related elements are in different clause complexes) or non-cohesive (the related elements are in the same clause complex), the exophoric reference is always non-cohesive.	}	similarity
			example
		}	elaboration
			difference
		}	examples
			difference

APPENDIX E

Text 18

Description

The difference between endophoric and exophoric reference is that endophoric reference refers to words inside the text, for instance 'The cat is mine. It is beautiful' where 'it' refers to 'cat' that is mentioned before. And exophoric ref. refers to concepts that are not mentioned in the text, for example 'You have to go to the supermarket' where we can assume that 'you' is one participant in the conversation. While the similarity is that they both refer to something that is known or shared. In the case of endophoric reference, it is known because it is written in the text, for instance 'the man with white hair'. And with exophoric reference is shared information, as with homophoric reference, because there could be only one thing to refer to, for example 'the sun'; because it is known by the context, for instance, if there is only one baby in the room we say/write 'the baby'; and because we could be talking in general as in 'The child usually grows up to be intelligent'.

} difference
ex.-elab.

} difference
ex. – elab.

} similarity

} difference
ex.
difference
ex.
elab.

Text 26

Description

One similarity between endophoric and exophoric reference is that they refer to elements in a text to construct it. Other similarity is that the personal reference can be used for endophoric and exophoric reference. For example, the personal pronoun 'he' can replace to another word within the clause: My boss is younger than me; he is immature. On the other hand, the personal pronoun 'we' can make reference to the writer as an exophoric reference. One difference is that endophoric are inside the text but exophoric outside the text. Also, endophoric reference can be cohesive or non-cohesive, but exophoric reference are always non-cohesive.

} similarities

} ex.-elabor.

} differences

Text 28

Description

Endophoric reference and exophoric reference are two resources that contribute to the unity of the text. What they do is to link one element in the text (either spoken or written) with another element; for example, in the case of 'John is working now', the word 'now' makes reference to the situational context in which the speakers are having a communicative activity whereas in the example 'The house is new. It is beautiful' the pronoun 'it' is linked with the previous sentence since 'it' makes reference to 'house'. Another similarity is that they serve of junctives in order to link the ideas in a text. In the first case, 'now' is a comparative reference to refer to the situational context; similarly, in the second sentence 'it' is a pronominal anaphoric reference to refer to house. However, endophoric and exophoric reference have some differences. The first one takes place within the text whereas the second one makes the reader/speaker retrieve the information from the immediate context. In the sentence 'Laura is my sister; she is 13', the pronominal anaphoric reference 'she' goes back to Laura; the referent is in the text. However, in the sentence 'Laura is there', the receiver of the information knows that 'there' is in the situational immediate context.

- similarity
- ex.-elabor.
- similarity
- elaboration
- differences
- ex.-elabor.

Text 33

Description

Both exophoric and endophoric references are grammatical cohesive devices which are used to refer to a presupposed referent by the use of pronouns. However, they differ in where the referent is recourse to. On the one hand, endophoric reference is used to replace items within the text. Take for example, 'Maria loves John. She is in love with him'. In this last case 'she' refers back to 'Maria' and 'him' to 'John'. Moreover, the definite article 'the' can be use to refer to an item coming right after it (esphoric reference). On the other hand, exophoric reference is used to refer to an item from the context in which the text was produced. For instance, 'He told me I shouldn't go'. In this case, taken from a conversation, 'he' refers to a presupposed male entity, and 'I' and 'me' refers to the speaker.

- similarities
- difference
- ex. – elabor.
- difference
- ex. – elabor.

Text 35

Description

Even though endophoric and exophoric reference are included among the different grammatical cohesive devices, they differ in some aspects. On one hand, endophoric reference points to an item within the text, as in 'Maria told her sister to go away', where the referent that the pronoun is making reference to is previously stated in the text. On the other hand, exophoric reference points to an item outside the text, an item which needs to be retrieved from the context. As we can observe in 'Please, give me that', the referent is not stated previously or later on, the demonstrative pronoun is pointing to something which is not within the text but outside of it. What the speaker was pointing to needs to be retrieved from the context in which he or she said it.

- similarities
- difference
- ex.-elabor.
- difference
- ex. elaboration

APPENDIX E

Text 42

Description

Endophoric as well as exophoric reference are resources that have the function of adding unity to the text. In both cases we need to resort to something else rather than the reference item to fully understand the meaning of it. In the case of endophoric reference, the referent is in the text as in the case 'Paul is a very good friend. He always listens to me'. (Reference: he, referent: Paul). In contrast, exophoric reference is the kind of reference in which we have to resort to something which is outside the text in order to get the complete meaning of the reference word. In the following example 'I love cooking' the pronoun 'I' makes reference to the writer of the message and in order to make sense of it we need to resort to the outside of the text.

similarities

differences
ex.- elabor.
difference

ex.- elabor.

Text 48

Description

Endophoric and exophoric reference can both be pronominal, demonstrative or comparative. However, exophoric reference points towards an element that is outside the text while endophoric reference only points towards elements inside the text. Endophoric reference can be further classified into anaphoric reference (when it points back in the text) and cataphoric (when it points forward in the text). To illustrate, in the text 'you should not worry because he is coming. My brother is a doctor. He will understand', the word 'you' is pointing outside the text (exophoric reference) while the word 'he' in the first sentence refers to 'my brother' which is an element in the text (cataphoric reference). The word 'he' in the third sentence is a case of endophoric anaphoric reference referring back to 'my brother'.

similarities

differences

subtypes 1&2:
types of end. ref.

examples
elaboration

Text 49

Description

Both endophoric and exophoric reference do refer to something else: a person, an action, a place, etcetera. However, they differ in the location of their referent. Endophoric reference has its referent in the text (Before: anaphoric, or after: cataphoric), whereas exophoric reference points to something out of the text; a person, an action that exists in the context, in the communicative situation, and which has not been mentioned in the same text before. For example: 'That's my sister!' refers to a girl who has not been mentioned before. And 'That's my sister. She lives abroad and has come on holiday' is endophoric ('she') because she's been mentioned in the previous sentence.

similarities

differences

examples
elaboration

Text 50

Description

Both endophoric and exophoric references can be identified within texts. They can be realized by the use of pronouns, demonstrative determiners, adverbials of time and place and so forth. The difference between them is that their referent may be located or identified within the text (in the case of endophoric reference) or outside the text (in the case of exophoric reference). Endophoric reference can be anaphoric when its referent is found before the reference (as in 'these conditions', which refers back to the definitions of A.D.H.D. and A.D.D. in the previous paragraph) or cataphoric when its referent is found after the reference. Exophoric reference, on the other hand, refers to a referent which cannot be recovered from the text (by recognizing textual marks as in endophoric reference) and its identification depends on the context and the situation in which the text is interpreted. In the sentence 'Now a growing stream of research...', 'now' cannot be identified with a specific time frame and can adopt different representations/interpretations if no additional information is provided (such as the date of article publication, etc.)

- } similarities
- } difference
- } example
elaboration
- } difference
- } example
elaboration

APPENDIX F²

Texts with appropriate thematic selections (13)

Text N°3	Textual Theme	Topical Theme		Special theme
		Marked	Unmarked	Absolute theme
			Both endophoric and exophoric reference	
				As regards similarities
			They both (endo. and exo. ref)	
	and		they (endo. and exo. ref)	
			The only difference they have (endo. and exo. ref.)	
			These two types of reference	

Text N°7	Textual Theme	Topical Theme		Special Theme
		Marked	Unmarked	Absolute Theme
			Endophoric and exophoric reference	
				As regards their similarities
	In other words		they (endo. and exo. ref.)	
			They (end. and exo. ref.)	
	However		endophoric and exophoric reference	
		While exophoric reference is used to point to an entity outside the text,		
			The first case (exo. ref.)	
		In this case (an example of exo. ref.)		
			Endophoric reference	
			He (reference form mentioned in an example)	
	thus		Endophoric and exophoric reference	
	but		Ellipsed theme (endo. and exo. ref.)	

² 11 out of the 13 texts in this category contain all expected phases. Only 2 texts (n° 19 and 37) lack exemplification and elaboration of the examples but even so they display thematic selections that contribute to textual continuity.

Text N°9	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric and exophoric reference
	For example		Laura was playing in the park with some friends yesterday. We saw a big smile in her face.*
		In this case (the example)	
	In the same way		The pronoun <i>we</i> (in the example)
			We
	However		these two types of references

Text N°14	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric and exophoric reference
			They (endo. and exo. ref.)
		In the following example 'Lucia is my sister. She knows this cat'	
	In other words	without the referent (Lucia)	
			The difference between endophoric and exophoric reference
			Another difference

Text N°19	Textual Theme	Topical Theme		Special Theme
		Marked	Unmarked	Absolute theme
				As regards the similarities of endophoric and exophoric reference
			Another similarity	
	However		the main difference between those types of reference	
	Besides		endophoric (and exophoric) reference	
	but		exophoric	

APPENDIX F

Text N°26	Textual Theme	Topical Theme	
		Marked	Unmarked
			One similarity between endophoric and exophoric reference
			Other similarity
	For example		the pronoun 'he'
	On the other hand		the personal pronoun 'we'
			One difference
	Also		endophoric reference
	but		exophoric reference

Text N°28	Textual Theme	Topical Theme		Special Theme
		Marked	Unmarked	Thematic equative
			Endophoric and exophoric reference	
				What they do
	For example	in the case of 'John is working now'		
	whereas	in the example 'The house is new. It is beautiful'.		
			Another similarity	
		In the first case (first examples)		
	similarly	in the second sentence		
	However		endophoric and exophoric reference	
			The first one (endo.ref.)	
	whereas		the second one (exo.ref.)	
		In the sentence 'Laura is my sister; she is 13'.		
			The referent (in the example)	
	However	in the sentence 'Laura is there'		

Text N°36	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric and exophoric reference
	On the one hand		They
	On the other hand		endophoric reference
	whereas		exophoric reference
	For instance		the sentence 'I love apples. We bought one kilo of them in the market yesterday'

Text N°37	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric and exophoric reference
	however		the former (endo.ref)
	that is		all the information
	while		the latter (exo.ref.)

Text N°39	Textual Theme	Topical Theme	
		Marked	Unmarked
			Both endophoric and exophoric reference
	However		they (endo. and exo. ref.)
		In the case of endophoric reference	
	Furthermore		endophoric reference
	On the other hand		exophoric reference
	Consequently		it (exophoric ref)

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Text N°42	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric as well as exophoric reference
		In both cases	
		In the case of endophoric reference	
	In contrast		exophoric reference
		In the following example, I love cooking	
	and	in order to make sense of it (the ref. form I)	

Text N°49	Textual Theme	Topical Theme	
		Marked	Unmarked
			Both endophoric and exophoric reference
	However		they (endo.and exo.ref.)
			Endophoric reference
	whereas		exophoric reference
	For example		'That's my sister'
	But		'That's my sister. She lives abroad and has come on holiday'. (example)

Text N°50	Textual Theme	Topical Theme	
		Marked	Unmarked
			Both endophoric and exophoric references
			They (endo. and exo. ref.)
			The difference between them (endo. and exo. ref.)
			Endophoric reference
			Exophoric reference
	and		its identification (exo.ref.)
		In the sentence 'Now a growing stream of research...'	

APPENDIX G³

Texts with some problematic Themes (33)

1. Themes that construe unexpected phases of endophoric and exophoric reference (9)

Text N°1	Textual Theme	Topical Theme		Special Theme
		Marked	Unmarked	Picked up Theme
			Endophoric reference	
			These items (reference forms)	
			It (endo. ref.)	
				As regards exophoric reference
			It (exo. ref.)	

Text N°2	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric reference
	for example	in 'these effects generally decline by the third year, if not sooner',	
	On the other hand		exophoric reference
	that is to say		part of the information we as readers/listeners need
	such as	in the sentence 'look at that!'	

³ The Themes identified with (*) are part of sentence fragments.

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Text N°13	Textual Theme	Topical Theme	
		Marked	Unmarked
			Reference
			The former type of reference (endo.)
			Endophoric reference
	For example	in 'I met a girl. Her name is Jane'	
	whereas	in 'He told me who she is. She is his girlfriend'	
	On the other hand		exophoric reference
	and so		it (exo. ref)
	For example		'I don't know where I left my wallet'*
		In this case	

Text N°16	Textual Theme	Topical Theme	
		Marked	Unmarked
			References
			There
			The first one (endo. ref)
	that is to say		an special word
	For instance		'John is my friend. He is a nice guy'.*
			The pronoun 'he' (in the example)
	On the other hand		Exophoric reference
	For example	if you are in a conversation and your friend says 'I'd like to go to the cinema this weekend, would you come with me?'	

Text N°21	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric reference
			Exophoric reference
		In endophoric reference	
	For example		'Billy made a good work. He is very efficient'.*
		In this case	
	On the other hand		Exophoric reference
	For example		'He is very efficient'
	and		'he' (reference form in the example)

(also unexpected/unnecessary Theme: *and he*)

Text N°24	Textual Theme	Topical Theme	
		Marked	Unmarked
			Exophoric reference
			The situational elements, such as participants or circumstances
	For example		the use of the pronouns I, we and you in the text
			Another type of reference
			The reader or hearer
		When we refer back to an element in the text	
	but	when we refer forward	
			An example of this type of reference

Text N°25	Textual Theme	Topical Theme	
		Marked	Unmarked
			Reference
			Endophoric reference
	For instance	in 'Sheila is not at school. On the contrary, she is at home'	
			Endophoric reference
	whereas		exophoric reference
	For example	In 'I arrived at home yesterday',	
		If it is not in the text	

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Text N°30	Textual Theme	Interp Theme	Topical Theme		Special Theme
			Marked	Unmarked	Predicated Theme
				Exophoric reference	
				It (exo. ref.)	
				It (exo. ref.)	
	For example		if somebody says to you 'Put it there' and we are in the same place at the same time		
				Endophoric reference	
		Frequently		The identity of the participants	
					It is endophoric reference
	For example			'Although John and Susan fight all the time, they still want to go on with their relationship'*	
				The personal pronoun 'they' (in the example)	
	and			it (the referent)	

(also an unnecessarily focused Theme: *It is endophoric reference*)

Text N°38	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric reference
			It (endo.ref.)
		In the following clause complex 'John.....because....carefully'	
			Endophoric reference
			The referent (in the example)
			Exophoric reference
			The meaning of the item
		In the clause complex 'We should....on us' *	
		In order to retrieve the meaning of 'we'	

2. Themes that do not contribute to phase signaling (5)

Text N°4	Textual Theme	Topical Theme		Special Theme
		Marked	Unmarked	
			There	
			both	
	On the other hand		there	
				As regards endophoric reference
	For instance		'Cognitive control may be defined as emotional self-regulation and the suppression of irrelevant thoughts. It begins to decline noticeably in the 70s or 80s'.*	
		In this case (example)		
			The referent of 'it' (reference form in the example)	
				As regards exophoric reference
	For example		'This happens because adults have distractions that the mind once would have suppressed'.*	
			The meaning of 'this' (reference form in the example)	

Text N°10	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric and exophoric reference
	but		They (endo. and exo. ref.)
		In the case of endophoric reference	
		To illustrate this point (about endophoric reference)	
		If we want to know what is the referent for 'the' (in example)	
		When we talk about exophoric reference	
		In this case (exo.ref.)	

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Text N°12	Textual Theme	Topical Theme	
		Marked	Unmarked
			There
			Both endophoric and exophoric
	so		the reader
	and	in the case of exophoric reference	

Text N°35	Textual Theme	Topical Theme		Special Theme
		Marked	Unmarked	Thematic equative
		Even though endophoric and exophoric reference are included among the different grammatical cohesive devices		
	On one hand		endophoric reference	
	On the other hand		exophoric reference	
		As we can observe in 'Please, give me that'		
				What the speaker was pointing to (Thematic Equative)

Text N°47	Textual Theme	Topical Theme	
		Marked	Unmarked
			Reference, either endophoric or exophoric
	In other words	In order to understand the meaning of the reference	
	Furthermore	if the referent is within the text and before the reference	
	For example		'When you are in a foreign country, you can... other cultures'
		If the referent is within the text	
		If the referent is outside the text	

(also unexpected/unnecessary theme: *Furthermore...*)

3. Inappropriate order of Themes (7)

Text N°17	Textual Theme	Topical Theme		Special Theme
		Marked	Unmarked	Absolute Theme
			Endophoric reference and exophoric reference	
			The former (endo.ref.)	
	For example		'He is the love of my life'	
	On the other hand		exophoric reference	
		In the previous example		
				As regards similarities

Text N°18	Textual Theme	Topical Theme	
		Marked	Unmarked
			The difference between endophoric and exophoric reference
	And		exophoric reference
	While		the similarity*
		In the case of endophoric reference	
	and	in exophoric reference	

Text N°34	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric reference
	whereas		exophoric reference
			Both endophoric and exophoric reference
	However		endophoric reference
			Exophoric reference

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Text N°41	Textual Theme	Topical Theme	
		Marked	Unmarked
			Reference
	On the one hand		We
			It (endo. ref)
	On the other hand		We
	For example		'The government is placing the economy in a difficult position'
			The reader
	So		both endophoric and exophoric reference
	but		they (endo. and exo. ref.)

Text N°43	Textual Theme	Topical Theme		Special Theme
		Marked	Unmarked	Absolute Theme
			We	
			The former (exo. ref)	
	In other words		the exophoric reference	
	For example		Look at it!'	
			That (exo. ref)	
				Regarding the latter, the endophoric reference
	For example		'I bought two books. They are interesting and colourful'.*	
			The pronoun they (in the example)	
	In conclusion		we	

Text N°44	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric and exophoric reference
			Endophoric reference
	For example		'Lily is very sad since she broke up with her boyfriend'. *
			She (reference form in the example)
	Whereas		exophoric reference*
	For example		'Lili don't go there'. *
			'There' (reference form in the example)
			Endophoric and exophoric reference
	For example		'I have two siblings, those kids always make my day', and 'I love those paintings!'. *

Text N°46	Textual Theme	Topical Theme		Special Theme
		Marked	Unmarked	Absolute Theme
			Endophoric reference	
	and	in the case of exophoric reference		
			There	
				As regards the differences
	for example		'I bought a shirt for tonight party. It's red' *	
	and		'The car of my neighbor is brand new' *	
	while		exophoric reference	
	for example		'The storm has passed and the airports are now open'. *	
				As regards the similarities

APPENDIX G

4. Unexpected/unmotivated Themes (12)

Text N°5	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric and exophoric reference
			Endophoric reference
	In contrast		exophoric reference
	Therefore		it (exophoric reference)
	and		we
			Endophoric reference
	For example		in the sentence 'The book I bought was old. It belonged to the seller's grandfather'.*
			The personal pronoun 'it' (in the example)

Text N°6	Textual Theme	Topical Theme		Special Theme
		Marked	Unmarked	Absolute Theme
			There	
	To begin with	in both cases (endo. and exo. ref.)		
	Therefore		it (anticipatory)	
				As regards the differences
	that is to say		it (endo. ref.)	
	On the other hand		the referent of exophoric reference	
	For example		'Global warming is affecting the whole humanity. It will be a huge problem for the next generations'*	
			It (reference form in the example)	
	and	if we say: 'Global warming is affecting us'		

Text N°11	Textual Theme	Topical Theme	
		Marked	Unmarked
			The similarities between endophoric references and exophoric reference
	However		they (endo. and exo. ref.)
		While exophoric reference points out participants from the situational context (outside the text)	
	What is more		endophoric reference

Text N°22	Textual Theme	Topical Theme		Special Theme
		Marked	Unmarked	Predicated Theme
			Reference	
			Reference	
			Both (endo. and exo. ref.)	
	that is to say		the grammatical item that performs these functions	
	and		the reader	
				It is where the reader need to go to find out this identity
		While in endophoric reference the referent is in the text,		
		To illustrate these ideas		

Text N°23	Textual Theme	Topical Theme	
		Marked	Unmarked
			The differences between endophoric and exophoric reference
			The similarity
		In endophoric reference	
			It (esphoric reference)
	and		it (esphoric reference)
		In exophoric reference	
			Example of endophoric reference*
			Example of exophoric reference*

Text N°27	Textual Theme	Topical Theme	
		Marked	Unmarked
		In order to know how the referent is found in a text	
			Both endophoric and exophoric reference
			They (endo. and exo. ref)
	However		endophoric reference
	and		it (endophoric reference)
			This 'it' (reference form in example)
			That 'these' (reference form in example)
	On the contrary		Exophoric reference
			That (reference outside the text)

Text N°31	Textual Theme	Topical Theme	
		Marked	Unmarked
			Reference words
			we
	or		it (referent)
			Endophoric reference
	or		it (endophoric reference)
			Endophoric reference
	In contrast		exophoric reference

Text N°32	Textual Theme	Topical Theme		Special Theme
		Marked	Unmarked	Thematic equative
				What makes a text a text
			The whole world	
	and consequently		we	
			there	
			Both references (endo. and exo.)	
	and therefore		they (endo. and exo. ref.)	
	However		both references (endo. and exo.)	
		While exophoric reference resorts to a situational contexts,		
			An instance of exophoric reference	
			That adverb (mentioned in example)	
		Unlikely exophoric		
			That adverb (mentioned in a different example)	
	and		the speaker	

Text N°33	Textual Theme	Topical Theme	
		Marked	Unmarked
			Both endophoric and exophoric references
	However		they
	On the one hand		endophoric reference
			Take
		In this last case (example)	
	Moreover		the definite article 'the'
	On the other hand		exophoric reference
	For instance		'He told me I shouldn't go'*
		In this case, taken from a conversation (example)	

APPENDIX G

Text N°40	Textual Theme	Topical Theme	
		Marked	Unmarked
			Both endophoric and exophoric reference
		While endophoric reference refers/points to an identity in the text	
			Endophoric reference

Text N°45	Textual Theme	Topical Theme	
		Marked	Unmarked
			The difference between endophoric and exophoric reference
	For instance	in the text	
	also	in the text	
			this
	On the other hand		exophoric reference
	For example	in the text	
			This

Text N°48	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric and exophoric reference
	However		exophoric reference
	while		endophoric reference
			Endophoric reference
		To illustrate	
			The word 'he' in the third sentence (in example)

APPENDIX H⁴

Texts with disruptive Themes (5)

Text N°8	Textual Theme	Topical Theme		Special theme
		Marked	Unmarked	Absolute theme
			Endophoric and exophoric reference	
				As regards differences
	For example		Mary lives in Barcelona...She loves it*	
		In this case		
			We	
		In the case of 'the effects of this illness...nausea and headaches'		
				As regards exophoric reference
			Another difference	
	However		exophoric reference	
				As regards similarities

Text N°15	Textual Theme	Topical Theme	
		Marked	Unmarked
			Endophoric (or textual) reference and exophoric (or situational) reference
	On the one hand		both endophoric and exophoric reference
	and		they (endo. and exo. ref.)
	On the other hand		endophoric reference
	while		exophoric reference
			Texture
	and	to achieve it (texture)	
			Both (endophoric and exophoric reference)
			Exophoric reference
	instead		It (exophoric reference)

⁴ The Themes identified with (*) are part of sentence fragments.

APPENDIX H

Text N°20	Textual Theme	Topical Theme	
		Marked	Unmarked
			Reference
			The former type of reference (endo. ref)
			Reference items
	and		its name
			The elements used to refer to the context of the text in which the referent item is immerse
	For example		an item used to denote an endophoric reference
	In contrast		The elements that are used to refer to elements within the text

Text N°29	Textual Theme	Interpersonal Theme	Topical Theme		Special Theme
			Marked	Unmarked	Absolute Theme
			In the production of texts		
	so			the use of reference	
					As regards the similarities between endophoric and exophoric reference
				There	
					Concerning the differences
	And therefore			there	
	So	sometimes		there	
	For example		in a piece of news		
	and			there	
				the reader	

Text N°51	Textual Theme	Topical Theme	
		Marked	Unmarked
		In texts	
	and		one of them
		When we talk about text reference	
			that (text reference)
			These things (names, objects, etc)
	or		they (things)
	On the other hand		there
	and		it
			Exophoric reference

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