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Title: **Contrasting the form and use of reformulation markers**

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Abstract

This paper deals with the form and use of reformulation markers in research papers written in English, Spanish and Catalan. Considering the form and frequency of the markers, English papers tends to prefer simple fixed markers and includes less reformulators than Spanish and Catalan. On the contrary, formal Catalan and Spanish papers include more markers, some of which are complex and allow for some structural variability. As for use, reformulation markers establish dynamic relationships between portions of discourse which can be identified in our corpus with expansion, reduction, and permutation. The analysis of the corpus shows that English authors usually reformulate to add more information to the concept (expansion), whereas Catalan and Spanish authors reduce the contents or the implicatures of the previous formulation more frequently than English.

Key words: reformulation, equivalence, reformulation markers, paraphrase, specialized discourse, contrastive linguistics

1. Introduction*

1.1 Reformulation and discourse

Reformulation can be defined as a process of textual reinterpretation: the speaker or writer re-elaborates a previous fragment of discourse presenting its contents in a different way. Reformulation is a complex discourse function by which the speaker re-expresses an idea in order to be more specific, and "facilitate the hearer's understanding of the original" (Blakemore, 1993: 107). Consequently, this discourse operation implies an autoreflexion about language and it is a clear sign of the metacommunicative function of language.

On the other hand, reformulation ensures textual cohesion and at the same time facilitates discursive progression because it helps reducing the possible communicative defects of a text, and it also makes it possible to re-elaborate the conceptual content of some statements previously presented in order to accomplish different functions.

In fact, reformulation has been related to facilitation of communication (Gülich and Kotschi, 1983, 1987, 1995; Charolles and Coltier, 1986), text progression, and the presentation of new information (Charolles and Coltier, 1986; Fløttum, 1993, 1995; Thoiron and Béjoint, 1991), polyphony and dialogue (Kotschi, 1990; Jacobi, 1984), and argumentation (Fløttum, 1993).¹

According to the scope of the reformulation and the semantic relation that is conveyed, Gülich and Kotschi (1995) propose to consider that paraphrastic reformulators express expansion (through specification or explanation), reduction (through summary or denomination) or variation whereas non-paraphrastic reformulators indicate dissociation (through recapitulation, reconsideration or separation) or correction (through content, formulation or form).

Following Gülich and Kotschi's (1995) classification (see section 4), in this paper we analyze paraphrastic reformulation markers according to the semantic relation that they convey.

1.2. Reformulation and specialized discourse

Reformulation has also been studied in relation with specialized discourse. Specialized discourse is generally analyzed from a lexical point of view, that is, by focusing on terminology. Nevertheless, there are other important aspects to be taken

into account dealing with the construction of specialized discourse or rather with the types of texts and genres prototypically associated with specialization.

Specialized discourse is usually implemented by expository texts, in which the use of discourse markers is very significant. The speaker or writer often highlights the relationship between ideas by means of discourse markers, and constructs coherent discourse by making these links explicit.

The explanation of terms and ideas constitutes a basic discourse operation in expository prose. There are several papers that insist on the importance of reformulation in scientific texts (Candel, 1984; Thoiron and Béjoint, 1991), and also in popular-science texts (Ciapuscio, 1997, 2003; Fløttum, 1993, 1995; Bach, 2001b, 2001c). As Blakemore indicates, authors reformulate their discourse in order to facilitate communication, and specifically to contribute to the understanding and the diffusion of specialized knowledge: “The fact that the reformulation contains semantically equivalent but more frequently encountered vocabulary means that it may achieve the same contextual effects of the original but for less processing effort” (Blakemore, 1996: 339).

On the other hand, the identification of reformulation becomes a way to recognize terms in specialized discourse (Candel, 1984; Person, 1998; Thoiron and Béjoint, 1991; Suárez, 2004).² Reformulation is also related to the problem of synonymy between two terminological units. Chukwu and Thoiron (1989) and Mortureux (1993), among others, define reformulation as a relation between a terminological unit and a different denomination which is treated as its reformulation. Alternatively, Suárez (2004) proposes a dynamic approach by which reformulation is considered as a way of introducing denominative variation in specialized discourse so that both formulations can often be considered

terminological. Similarly, Bach et al. (2003) analyze the relationship of equivalence between denominative variants linked by reformulation markers and conclude that, although the discourse relationship is always equivalence, out of context the equivalence between variants can vary from minimal to maximal.

Focusing on popular science texts, Mortureux (1982: 50) states that paraphrastic reformulation is a key element in order to avoid the problems that terminology may cause a non-expert receiver.

However, reformulation has a discourse dimension that has not been sufficiently explored yet. From translation and discourse studies, reformulators and other discourse markers have been analyzed in French and Italian (Rossari, 1994), and in parallel specialized texts in Spanish and English (Fernández Polo, 1999; Bach & Suarez, 2002). Reformulation markers have also been treated by comparing Catalan, Spanish, and English academic texts in Cuenca (2001, 2003).

The present paper is an extension of the latter, since it explores the form and use of reformulation markers in research papers. The study is based on a corpus of academic writing in English, Spanish, and Catalan from the field of linguistics. The contrastive study of reformulation markers contributes to the explanation of the communicative and dynamic aspect of specialized discourse, and shows interesting differences in the form and use of these markers cross-linguistically.

1.3. Methodology

The data for the present analysis have been taken from research papers in Linguistics published in the collective works edited by Casad (1995), for English; Briz et al. (1997), for Spanish; and Payrató (1998) and Lorente et al. (2001), for Catalan (see the list of

references at the end of the paper). The papers are written versions of oral presentations in conferences or symposia. The context of oral presentations seems to favour reformulation markers both in frequency and in variety. The fact that there are several authors in each language reduces the impact of individual differences.

The texts were chosen to be parallel in several respects: as for type of text (expository prose), genre (research paper), topic (linguistics), and level of expertise (expert writer).

The corpus consists of a selection of papers, containing approximately 40,000 words for each language. The texts have been read manually in order to identify any kind of paraphrastic markers. Once identified, an automatic search has been made so that all occurrences have been collected.

The identification has been conducted by means of substitution so that any utterance containing a marker which could be commuted by a prototypical paraphrastic reformulator (in English, *that is* or *in other words*) has been selected and analyzed in a data base. The examples have been classified according to the form of the marker and the specific meaning of the structure in order to compare the results cross-linguistically.

Our corpus consists of 395 utterances including paraphrastic reformulators. Spanish papers include the bigger amount of examples (178 cases, 45.06%), followed by Catalan (136 cases, 34.43%) and finally English, including only 81 examples (20.50%).

2. Reformulation as an equivalence operation

As pointed out in the introduction, reformulation is based on an equivalence operation so that two utterances (or groups of utterances) are shown as different ways to express a

single idea (paraphrase).³ It can be thus defined as a metalinguistic discourse function based on disjunction, i.e. alternative formulation.⁴

When reformulating, the speaker or writer formulates an idea (A) and elaborates it, so that a more complete or specific formulation is reached (A'). However, the idea is not only re-worded in a *different way*, but it is elaborated in a *better, more relevant way*, at least from the speaker's perspective. As Rossari points out: “La reformulation n’apportant pas seulement une modification quant à la forme, mais quant à la manière dont le locuteur appréhende la réalité évoquée dans un point de vue, suivant la perspective énonciative choisie” (Rossari, 1994: 9).

From this characterization, it follows that reformulation is prototypically paraphrastic, as can be seen in (1).

(1) I briefly describe below some of the evidence that is thought to favor the autonomy of language, **or** modularity, view because its existence is seen by some linguists as removing the need for any subfield of linguistics called cognitive linguistics. (COG, 31)



Figure 1. Paraphrastic reformulation as an equivalence operation

As example (1) shows, whenever a speaker presents two contents as alternative formulations, they are meant to be somehow equivalent. Still, they are also presented as

different in form: "every treating expression [formulation A'] contains something new, an element of change, of communicative 'progression'. As a rule, some kind of 'variation' is at least *suggested*" (Gülich and Kotschi, 1995: 42).

In fact, strict equivalence is hardly ever the case.⁵ There is a gradient from strong paraphrase to weak paraphrase including discourse values such as explanation, specification, generalization, implication, gloss or summary. In example (2), the second utterance is an implication arising from the first one, rather than a paraphrase:

- (2) The example of water rated the best example was actually drinking water, with tap water, rain water, and water fountain coming next in line. **In other words**, the liquids that people think of as the best examples of water are not necessarily those they believe to have the greatest amount of H₂O. (COG, 158)

In (2) the connective 'creates' the reformulating meaning rather than expressing it (Gülich and Kotschi, 1995: 43), since the relationship between the two sentences is that of implication or argumentation. In examples like (2), which are in fact far more frequent in our corpus than 'pure paraphrastic' ones, equivalence holds from a pragmatic point of view, but not necessarily from a propositional one.

To sum up, by using a reformulation marker, the speaker presents two contents as pragmatically equivalent, though propositionally the paraphrastic meaning can be prominent or not, and other meanings can arise.⁶ In all cases of weak paraphrase, some degree of equivalence between contents exists but it is combined with other prominent meanings not prototypically related to reformulation.

3. Reformulation markers: forms

The forms of the reformulation markers found in our corpus are shown in Table

1.⁷ The forms are organized as follows:

- (i) vertically, according to their category and structure (from more grammaticalized and simple in structure to non-grammaticalized and complex in structure),
- (ii) horizontally, according to their interlinguistic correspondence in a word-to-word translation.

The forms and frequency of the markers identified in our corpus highlight interesting facts. Catalan has 16 main forms, plus 4 variants and 6 combinations of *o* plus a prepositional or an adverbial phrase which are not grammaticalized as reformulation connectives.⁸ Our Spanish corpus includes 15 main forms, plus 4 variants and 3 compound markers (*esto es, en otros términos; esto es y formulado en otros términos, quiero decir -por decirlo más sencillamente*). In contrast, English includes just 8 markers and 1 combination (*or more generally*). Spanish and Catalan exhibit thus a greater variety of markers which indicate reformulation than English.

Spanish		Catalan		English	
o	89	o o, en sentit estricte o, en un sentit també més tècnic i precís o, amb més precisió o més exactament o simplement o bé més sintèticament	72 1 1 1 1 1	or or more generally	34 1
es decir es decir que	36 2	és a dir és a dir que	22 7	that is	7
o sea o sea que	4 2	o sigui	2		
esto es esto es, en otros términos esto es y formulado en otros términos	26 1 1	això és	7	i.e.	25
				namely	2
a saber	1				
en otras palabras (o) en otros términos	1 3	en altres paraules en uns altres mots	1 1	in other words	9
o, dicho en otras palabras o, dicho en otros términos	1 1	dit en unes altres paraules dit amb altres paraules	1 1		
dicho de otro modo	1	dit d'una altra manera altrament dit dit altrament	3 1 1		
o, si se quiere o, si se prefirere o, si se prefieren otras palabras	2 1 1	o, si es vol o, si es vol acceptar així o si es prefereixen d'altres paraules o si es desitja distingir...	2 1 1 1		
o, lo que es lo mismo	2	o, el que és el mateix	1		
		per dir-ho clar i ras per dir-ho en paraules de...	1 1	to be more precise or to say the same thing in a different way	1 1
quiero decir quiero decir con ello quiero decir -por decirlo más sencillamente- quiere ello decir que	1 1 1 1	això vol dir que	3	this means that	1
total forms: 22	178	total forms: 26	136	total forms: 9	81

Table 1. Reformulation markers: forms and frequency

Although the basic markers in the three languages are direct counterparts or very similar to each other (E. *or*, *that is (to say)*, *i.e.* (Lat. *id est*)); Sp. *o*, *es decir/esto es*;

Cat. *o, és a dir/això és*), Catalan and Spanish writers use more markers which are structurally complex and variable. The use of connectives including different nouns, the variation in verbal forms, and the optionality of certain elements are widespread in these Romance languages (see also Cuenca, 2001, 2003). This conclusion is consistent with a similar analysis performed by Fernández Polo (1999), who identifies in his corpus of parallel and translated popular-science texts 4 different reformulation connectives in English whereas 10 markers are found in Spanish.

Fernández Polo also notes that the English markers tend to be maintained in translations into Spanish, but modified by synonymy in order to avoid the strict repetition of forms.

“[...] Parece vislumbrarse un intento por parte de los traductores de huir de las expresiones mecánicas a las que recurren los autores anglosajones, del tipo de *es decir* o *esto es*. En ello coinciden con los autores de los originales en castellano, quienes además de *es decir*, introducen sus aclaraciones por medio de expresiones tales como *o lo que es lo mismo, para entenderlo mejor* o *dicho de otro modo*.”
(Fernández Polo, 1999: 150)

In fact, *variatio* is a major stylistic strategy in Spanish and Catalan academic prose in which it is common to avoid strict lexical repetition. In our corpus, the features identified by Fernández Polo can easily be observed. Catalan and Spanish texts include a number of forms which are more complex and precise in their meaning than the ones used in English texts. Spanish and Catalan writers often reformulate by using the conjunction *or* followed by other reformulation markers or by prepositional or adverbial phrases (Sp. *o en otros términos, o dicho en otras palabras/términos, o si se quiere, o si se prefiere, o lo que es lo mismo*; Cat. *o en sentit estricte, o en un sentit*

*també més tècnic i precís, o amb més precisió, o més exactament, o simplement, o més sintèticament).*⁹

As for frequency, in our corpus Catalan (136) and specially Spanish (178) use more reformulation markers than English (81). The most frequent marker in all languages is the general conjunction *o/or*, followed in Catalan by *és a dir* (29), in Spanish by *es decir* (38) and *esto es* (29), and in English by *i.e.* (25).¹⁰ The rest of the markers occur less than 10 times each (*in other words*: 9; *that is* and *això és*: 7; *o sea*: 6).

The fact that Spanish and Catalan use more reformulation markers than English is worth noticing. After his analysis of different text connectives, Fernández Polo (1999) concludes that English tends to use more connectives than Spanish both in parallel and translated popular science texts:

“...el empleo excesivo de conectores textuales, en tanto que manifestación de una retórica explícita tendente a facilitar la labor del lector, lejos de ser interpretado por los lectores españoles como un gesto de cortesía, tendería más bien a ser visto como un menosprecio de su inteligencia por parte del autor. La validez de esta idea parece verse respaldada por la opinión ya citada de los científicos españoles entrevistados por Saint-John (1987: 119), para quienes ‘Americans and British write for *bobos*’.”(1999: 131)

This generalization may hold true for most types of connectives, but not for reformulation connectives. Reformulation connectives are more frequent in Catalan and Spanish in our corpus, and also in the Spanish corpus of popular science texts analyzed by Fernández Polo (1999: 150): they account for 20.1% of the connectives in Spanish in contrast with 15.9% in the English corpus. This difference can be associated with the

fact that reformulation, being a mechanism of content repetition, might suggest digressiveness and indirectness, which are avoided in English.

The cross-linguistic differences in the markers can be easily related to the fact that Spanish and Catalan expository prose, apart from the constraints due to the grammar of these languages, is less concise (more ‘wordy’) than English expository prose (Cuenca, 2001, 2003). As for English, some authors put forward the existence of a preference for synthetic expression and linear texts, which does not coincide with the classical model found in other languages, such as German or Spanish.¹¹ Synthesis in expression and linearity are achieved by using several strategies:

- (i) Preference of relatively short sentences (Richadeau, 1992). This tendency reduces the use of subordination (Clyne, 1994: 163, 173; López Guix and Minett, 1997: 73-75, 89), and increases the presence of text deictics and lexical referential devices (lexical cohesion) as means towards maintaining the links between sentences and clauses (López Guix and Minett, 1997: 78-79, 87).
- (ii) Importance of symmetry in both grammatical and text structure (Clyne, 1994: 163).
- (iii) Avoidance of repetition and digressive material (Clyne 1994: 161-163, 173, 190-191).
- (iv) Limited use of sentential, which leads to inferred linkage (juxtaposition) in contexts where other languages use connectives (Leech and Short, 1981: 249-251; López Guix & Minett, 1997: 74-75, 89).

In conclusion, Spanish and Catalan authors in our corpus use a wider variety of forms to indicate the same discursive function, and many of them are complex in structure. Conversely, English exhibits a shorter list of markers most of which are structurally fixed (just compare *in other words* with some of its Catalan formal

counterparts: *en altres paraules* ‘in other words’, *en altres mots* ‘in other words’, *dit en altres paraules* ‘said in other words’, *dit amb altres paraules* ‘said with other words’, etc.), and avoids any kind of ‘superfluous’ information in order to preserve discourse economy. As Fernández Polo points out:

“[...] traductores y autores de los originales en castellano demuestran un cierto empeño en la búsqueda de expresiones relativamente complejas y rebuscadas para determinados valores, frente a los autores anglosajones en quienes se percibe una voluntad de elegir expresiones comunes de la relación en cuestión, sin más ambición que la claridad y la transmisión efectiva del sentido de dicha relación.”

(Fernández Polo 1999: 175)

In contrast with the English style, Spanish writers use more complex markers, which introduce a certain amount of redundancy in the expression of reformulation. Example (3) is a clear instance of this difference in style. The redundancy of two reformulations markers, one of which is structurally variable and complex, would surely be odd in English.

- (3) Ahora bien, además de constituir un mecanismo de corrección por parte del hablante, estas cláusulas con *si* pospuestas y entonativamente independientes son usadas con fines comunicativos durante el proceso de negociación conversacional; **esto es, y formulado en otros términos**, podemos sistematizar unos contextos comunicativos en los que los hablantes tienden a utilizar dichas construcciones; en concreto, cuando un hablante intenta obtener algún tipo de respuesta de su interlocutor y está teniendo problemas para conseguirlo. (PRAG, 339)

However, in addition to being a mechanism of correction used by the speaker, these if-clauses in final position and independent with regard to intonation, are used for communicative

purposes during the process of negotiation in conversation; esto es, y formulado en otros términos (lit.: 'this is, and formulated in other terms'), *we can systematize some communicative contexts in which speakers tend to use these constructions; specifically, when a speaker is trying to achieve some kind of response from his/her addressee and finds this difficult to achieve.*

Summarizing, the data of our corpus point to the hypothesis that English academic prose includes less reformulation markers than Spanish and Catalan, and tends to prefer simple fixed markers, whereas formal Catalan and Spanish academic prose use more markers, some of which are complex and allow for some structural variability.

4. Types of paraphrastic reformulation

As stated in section 1.1, reformulation can imply different discourse meanings accomplishing a number of functions in the progression of the contents in the text. These meanings and functions have been classified in different ways. Fuchs (1982: 102-103) differentiates three metalinguistic operations which indicate identity relations between sign and referent: designation (from sign to thing), denomination (from thing to sign), and exemplification (class predication or inclusive predication).

Similarly, Fløttum (1993), in her analysis of the uses of *c'est-à-dire*, distinguishes two types of reformulation: horizontal and vertical. The horizontal relation ("même niveau sémantique" = equivalence) can imply definition, denomination or substitution (to precise or to correct something previously said). The vertical relation ("different niveau sémantique" = inclusion) can mean either generalization (summary) or specification (example).

Gülich and Kotschi (1987, 1995) distinguish two basic meanings in paraphrastic reformulation connectives according to the conceptual relationship between the two

utterances: expansion and reduction. Expansion occurs when the treating expression (A') has a "larger formative extension than the reference expression [A], so that a sememe (or several sememes) of the reference expression is more or less arbitrarily broken down into individual features, which are represented by independent linguistic units in the treating expression" (Gülich and Kotschi, 1995: 47). Expansion is subdivided into specification ("to introduce new aspects") and explanation ("to define an abstract concept").

Reduction implies that "semantic features of a formatively larger semantic unit are 'gathered up' and 'condensed' into the sememe (or the sememes) of the treating expression" (Gülich and Kotschi, 1995: 47). Reduction is subdivided into summary ("to make a summary") and denomination ("to find a conceptualizing expression for some complex matter").

Similarly, we consider that reformulation markers establish dynamic relationships between portions of discourse which are made equivalent in a basic sense. Bach (2001a), in a revised version of Gülich and Kotschi's proposal, classifies these relationships into four types: expansion, reduction, permutation, and switch. An utterance A' expands a previous utterance A when it adds some features to its meaning or specifies information that is implicit in A and the hearer cannot be aware of. Conversely, an utterance A' reduces a previous utterance A when A' is a more synthetic way of expressing A or eliminates the possible ambiguity or contextual inferences that the latter had.

Expansion and reduction imply a high degree of equivalence at both a propositional and a pragmatic level. However, permutation and switch tend to non-paraphrastic reformulation either because the second utterance introduces some kind of

counterargument or because it introduces new argumentative elements. In both cases, propositional equivalence becomes weak.

Finally, these specific meanings or moves¹² combine with second level instructions (Luscher, 1994), namely, denomination, designation, exemplification, correction, conclusion, argumentation, level change and degree of specialization change. For instance, the marker *i.e.* in (4) expands the meaning of “to have a natural *salience*” through designation, that is, defining the concept as in a dictionary.

- (4) Relationships of full schematicity are claimed to have a natural "salience" (**i.e.** they will, *ceteris paribus*, occur more energetically in the mind), but if a categorizing structure such as SUITCASE is highly salient itself. (COG, 716)

In (5), reduction implies a second level instruction of exemplification.

- (5) Al considerarlos como cosas diferentes, la primera consecuencia es que se «contabilizan» aparte, haciendo sospechosos los porcentajes (con independencia de que ya lo sean por sí mismos) y sin hacerse jamás las tres preguntas científicas obligatorias que proceden; **es decir**, *a*) ¿son dos cosas distintas?; *b*) ¿en qué consiste su diferencia semántica, si la hay?; *c*) ¿cuáles pueden ser las causas de la mayor abundancia del uso de “probabilidad”? (PRAG, 252)

When considering them as different things, the first consequence is that they are “counted” separately, making percentages suspicious and without ever asking the three compulsory scientific questions; **es decir** (lit.: '(it) is to say') *a*) are they different?; *b*) what kind of semantic difference do they have, if any?; *c*) what can the causes of the higher frequency of the use of ‘probability’ be?

The author in (5) reformulates the “three scientific questions” by means of three questions which specify the previous concept. The operation is clearly an inclusive one.

For the purposes of this paper, our analysis is restricted to the three basic moves expressed by the paraphrastic reformulation markers identified in our corpus, namely, expansion, reduction, and permutation.

5. Reformulation markers: uses

Our corpus of academic papers in linguistics includes 395 markers, whose distribution in languages and moves is represented in Table 2.

	Expansion	Reduction	Permutation	Total
Spanish	75 (42.1%)	88 (49.4 %)	15 (8.4%)	178 (100%)
Catalan	61 (44.5%)	69 (50.3%)	6 (4.3%)	136 (100%)
English	54 (66.6%)	19 (23.4%)	8 (9.8%)	81 (100%)
Total	190	176	29	395

Table 2. Markers according to the three moves

Table 2 shows significant differences regarding the number of markers (Sp. 178; Cat 136; E. 81) and their distribution in the three moves, both considering the total figures (expansion: 190; reduction: 176; permutation: 29) and comparing the three languages, as we will comment in section 6.¹³

In the following sections, each move is defined and exemplified with the most frequent markers.

5.1. Expansion

A marker indicates expansion when the second utterance (A') introduces new elements to the first one (A). Example (6) illustrates expansion.¹⁴

(6) Breument, assumirem una visió clara i sintètica de la relació entre els dos tipus de dimensions crucials que es poden discernir en una situació de parla o esdeveniment comunicatiu: la lingüística i l'extralingüística. **En altres paraules**, partim del concepte bàsic de context de situació (...) com a representació de l'entorn en forma de categories generals que són rellevants per al text (...). (ORAL, 41)

Briefly, we will assume a clear and synthetic vision of the relationship between the two kinds of crucial dimensions that can be differentiated in a speech situation or communicative event: the linguistic one and the extralinguistic one. **En altres paraules** (lit.: 'in other words'), we will start from the basic concept of context of situation as a representation of the environment through general categories which are relevant for the text.

The second sentence in (6) specifies in a different and more precise way the relationship between the two dimensions of a speech situation.

The quantitative analysis of the examples in our corpus is shown in Table 3.

Language	Markers	Cases
SPANISH		
Total Sp.: 178 Partial Exp.: 75 (42.1%)	es decir	27
	o	20
	esto es	17
	quiero decir	2
	quiere ello decir	2
	o en otros términos	2
	a saber	1
	dicho de otro modo	1
	o lo que es lo mismo	1
	o sea	1
	o si se quiere	1
TOTAL	14	75
CATALAN		
Total Cat.: 136 Partial Exp.: 61 (44.9%)	és a dir	23
	o	19
	això és	5
	dit altrament/ altrament dit	2
	dit d'una altra manera	3
	dit amb/en unes altres paraules	2
	en altres paraules	1
	o sigui	2
	o si es vol	2
	això vol dir que	1
	per dir-ho clar i ras	1
TOTAL	11	61
ENGLISH		
Total E.: 81 Partial Exp.: 54 (66.6%)	i.e.	25
	or	12
	in other words	9
	that is	7
	this means that	1
TOTAL	5	54
TOTAL		190

Table 3. Markers indicating expansion

The previous table indicates that in our corpus the most frequent markers expressing expansion are Cat. *és a dir* (29), Sp. *es decir* (27), E. *i.e.* (25), and the general conjunction *o/or* (Cat 19; Sp. 20; E. 21).

- (7) Totes aquestes peces de significat que s'expressen canònicament, s'ubiquen a la matriu oracional, **és a dir**, al sintagma oracional més intern, que inclou el verb i els seus arguments i els complements circumstancials, però exclou elements adjunts a l'oració. (CLUB, 123)

All these chunks of meaning expressed canonically, are located in the matrix sentence, **és a dir** (lit.: '(it) is to say'), in the most internal sentence phrase, which includes the verb and its arguments and adverbials but excludes sentence adjuncts.

- (8) Las variables representan, pues, la clave de la diversidad semántica de una lengua y esa diversidad semántica se manifiesta como diversidad cognitiva, **es decir**, como la capacidad de representación subjetiva de las expresiones idiomáticas bajo la forma de experiencias; bajo la forma de la aprehensión de lo real. (PRAG, 245)

Consequently, the variables represent the key element of the semantic diversity of a language and this semantic diversity is manifested as cognitive diversity, **es decir** (lit.: '(it) is to say'), as the capability of subjectively representing idiomatic expressions expressed as experiences; as forms of apprehension of reality.

- (9) All these FF 1–B's often exhibit phonological intonation patterns that indicate the atypical constituent structure [[Subject be] X] rather than the expected [Subject [be X]]. This is a natural result of the fact that they are formulas, **i.e.** established units which speakers are used to pronouncing and construing together. (COG, 724-725)

In the previous examples, three concepts are explained in a more precise way: “being located in the matrix sentence” in (7), “cognitive diversity” in (8), and “formulas” in (9). Expansion is thus a way to define terms and concepts.

The relatively high frequency of Cat. *és a dir*, Sp. *es decir*, E. *i.e.* shows a clear preference for specific unambiguous markers in all languages and especially in English, where the marker *i.e.* is selected in more than 50% of the expansion contexts.¹⁵

As indicated in Table 3, the general conjunction *o/or* is the second most frequent expansion marker.

(10) Molt sovint s'ha solventat recorrent a una gradació triple, corresponent a un ús col·loquial (o familiar, o informal), un d'estàndard (neutre o corrent) i un altre d'elevat o solemne (molt formal). (ORAL, 22)

Very often it has been solved by a three-type gradation corresponding to colloquial use (or familiar, or informal), standard use (neutral or ordinary) and another which is high or solemn (very formal).

In (10), the terms *colloquial* and *standard* are doubly reformulated by using synonyms. In the case of *standard*, the use of the non-terminological unit *ordinary* indicates that the author is attempting to make the sense clear to a non-specialist.

(11) Mantengo la necesidad de distinguir entre unidades y variantes a) porque, por definición, sólo conocemos variantes, y b) porque esas variantes o usos que conocemos no se entienden como representantes de cosas o de situaciones «reales», sino como ejemplares de unidades constantes que sólo poseemos bajo la forma de intuiciones puras e independientes. (PRAG, 254)

I maintain the need to distinguish between units and variants a) because, as a principle, we only know of variants and b) because these variants **or** uses that we know of cannot be understood as representing 'real' things or situations but tokens of constant units that we only possess under the form of pure and independent intuitions.

The use of *o* introduces a simpler (non-terminological) explanation of the term *variant*, so that a change of level of specialization takes place. Similarly, the term *schemas* in (12) is reformulated as "frames, in the sense of Fillmore" so that the term becomes clearer to a linguist who may be more familiar with Fillmore's theory.

(12) Filip links the Incremental Theme to the domain of an entire sentence and places it within an Incremental Schema, which is one of the interpretive schemas (**or** frames, in the sense of Fillmore) that is associated with sentences. (COG, 13)

We can further illustrate the use of the other frequent reformulation markers indicating expansion.

(13) En totes dues construccions, el canvi es produeix en construccions de moviment final (Vallduví 1988), **això és**, en construccions en què el subjecte agent es desplaça d'un lloc a un altre amb la intenció de realitzar una determinada acció. (CLUB, 309)

In both constructions, the change takes place in telic movement constructions (Vallduví 1988), **això és** (lit.: 'this is'), in constructions in which the subject agent moves from one place to another in order to carry out a specific action.

(14) Unas veces tienen naturaleza ilocutiva, otras perlocutiva. El enunciado verbal no depende sólo de la intención del sujeto hablante, sino también de lo que "el otro"

dice o manifiesta por procedimientos no verbales. En el primer caso, **esto es** cuando el diálogo conversacional depende solo del enunciado, los contenidos pragmáticos son de naturaleza lingüística. (PRAG, 41)

Sometimes they have an illocutionary nature; others, perlocutionary. The verbal utterance not only depends on the intention of the speaker, but also on what the "other" says or manifests by means of non-verbal devices. In the first case, **esto es** (lit.: 'this is') when the conversation dialogue only depends on the utterance, the pragmatic contents are linguistic in nature.

(15) This mapping is termed "metaphorical" because it establishes relationships based on abstractly perceived equivalence. **In other words**, metaphorical mapping entails the identification of an unmarked member of category A with an unmarked member of category B, and the identification of a marked member of category A with a marked member of category B. (COG, 218)

(16) One possibility is that the categories described are represented *in toto* (**that is**, all the individual examples are represented) in the mind of a language user. (COG, 170)

In the previous examples, expansion is used either to define complex concepts ("construccions de moviment final" in (13); "represented in toto", in (16)) or to make clear contents that may be ambiguous ("el primer caso", which refers to "enunciado verbal" in (14)) or contents that needs further explanation ("metaphorical mapping" in (15)).

In conclusion, reformulation through expansion introduces new elements in discourse in order to precise the meaning of the first utterance. As a matter of fact, expansion can be considered the reformulation move that more clearly contributes to

reduce the addressee's effort in interpreting. In the examples of our corpus, three types of specification are made:

- a) definition of specialized terms,
- b) decrease of the level of specialization,
- c) specification of some part of meaning that the speaker thinks that can be necessary to interpret the message.

5.2. Reduction

Reduction takes place whenever some features of the first utterance are deleted or simplified. It does not only refer to formal shortening but rather to the reduction of its contents, its implications, its argumentative conclusions or other features.

(17) En aquests exemples, *perxò* no té un valor causal sinó un valor de caràcter adversativoconcessiu i és, per tant, fàcilment substituïble per altres marcadors discursius amb el mateix valor, ***això és***, per *tanmateix*, *malgrat tot*, *tot i amb això*, etc.

In these examples, *perxò* does not have a causal meaning but an adversative-concessive-like meaning and it is, thus, easily commutable by other discourse markers with the same meaning, ***això és*** (lit.: 'this is'), by *tanmateix*, *malgrat tot*, *tot i amb això*, etc.

Reformulation in (17) implies reduction because a general concept ('other discourse markers with the same meaning') is illustrated by means of a list of specific markers that can manifest it. This context shows the fuzzy limits between reformulation and exemplification.¹⁶

The quantitative analysis of the examples in our corpus is shown in Table 4.

Language	Markers	Cases
SPANISH		
Total Sp.: 178	o	61
Partial Red.: 88 (49.4%)	es decir	11
	esto es	10
	o sea (que)	3
	o si se prefirere/prefieren otras palabras	2
	o lo que es lo mismo	1
TOTAL	8	88
CATALAN		
Total Cat: 136	o	56
Partial Red.: 69 (50.7%)	és a dir (que)	6
	en uns altres mots	1
	dit en unes altres paraules	1
	per dir-ho en paraules de	1
	això és	2
	si es desitja distingir	1
	si es prefereixen altres paraules	1
TOTAL	9	69
ENGLISH		
Total E.: 81	or	16
Partial Red.: 19 (23.4%)	namely	2
	to be more precise	1
TOTAL	3	19
TOTAL		176

Table 4. Markers indicating reduction

The most frequent marker indicating reduction is the disjunctive conjunction *o/or*.

(18) Els tipus de text, en canvi, que figuren en la columna central, poden entendre's com a abstraccions o categoritzacions que tenen en compte exclusivament factors lingüístics, verbals (...) (ORAL, 27)

However, the types of text indicated in the central column can be seen as abstractions or categorizations that only take into account linguistic, verbal factors.

In (18), the more general term *abstracció* ('abstraction') is followed by a more specialized term, *categorització* ('categorization').

(19) La extensión del concepto de deíxis ha venido de la mano de una evidencia: la que el egocentrismo o la "egocentricidad" no es una propiedad exclusiva del lenguaje, sino que se proyecta en prácticamente todas las experiencias humanas,. (PRAG, 257)

The extension of the concept of deixis has come up from an evidence: that egocentrism or 'egocentricity' is not an exclusive property of language, but it is projected almost on every human experience.

In (19), reformulation is used to facilitate the change in denomination, that is, to avoid any kind of discourse aspect which is implicit in the first formulation. What is important is the denomination itself, not the meaning features that can be related to the term *egocentrism*. This operation seems to be frequent in specialized texts whose basic aim is pedagogical since reformulation provides the reader with several denominative variants of the same concept in order to make it more understandable.¹⁷

(20) According to Putnam (1975), natural kind terms such as "water" function to pick out sets of things that share a common nature **or** "essence", such a particular chemical composition. (PRAG, 258)

The example in (20) shows reduction in form and contents, since the second term (*essence*) is more specific and shorter than the first one (*common nature*).

The specific markers Cat. *és a dir*, Sp. *es decir*, *esto es* are quite frequent in reformulations which indicate reduction.

(21) Cal no perdre tampoc de vista que la immensa majoria d'aquestes marques correspon a mots adaptats morfològicament -fins i tot fonèticament- i d'aparició repetida, **és a dir**, a manlleus establerts en la parla quotidiana. (ORAL, 271)

It is worth bearing in mind also that most of these marks correspond to words which have been adapted morphologically -even phonetically- and which occur repeatedly, **és a dir** (lit.: '(it) is to say'), borrowings introduced in ordinary conversation.

(22) Analicemos a continuación el segundo tipo de postposición de la subordinada, esto es, cuando la misma aparece tras el fin de una unidad tonal, **es decir**, tras pausa. (PRAG, 338)

Let us analyze now the second type of post-position of the embedded sentence, that is, when it occurs after the tonal unit end, **es decir** (lit.: '(it) is to say'), after a pause.

The examples in (21) and (22) include a more specific and shorter formulation of the contents introduced by the first conjunct. The reformulation in (23) is a conclusive reduction as the two elements introduced in A (position and functional value) are obviated, and only the positional value of apology is selected as a conclusion of what is being said.¹⁸

(23) En el marco de una estructura conversacional concreta es fácil encontrar también situaciones en las que un acto de disculpa ocupa la misma posición y el mismo valor funcional que un saludo. **Esto es**, la disculpa sirve como elemento de apertura conversacional. (PRAG, 320)

In the frame of a specific conversational structure it is also easy to find situations in which an apology act occurs in the same position and with the same functional value as a greeting. **Esto es** (lit.: 'this is'), an apology can be used as an opening item in a conversation.

The rest of the markers, including several complex and variable ones such as *Cat. en uns altres mots, si es prefereixen altres paraules*, *Sp. o si se prefiere*, *E. to be more precise*, exhibit a very low frequency (less than 3 cases).

In brief, reduction leads to a simplification of the first utterance in complementary ways:

- a) the re-denomination of the first concept through an alternative term or word,
- b) the increase of the degree of specialization,
- c) the reduction of the polysemy or the semantic and pragmatic implications of the first utterance.

5.3. Permutation

Permutation is a kind of reformulation that implies a change in the conclusions that can be derived from the first utterance. In other words, in the dynamic process of reformulation, permutation takes place when elements of A are substituted by others in A', so that the speaker or writer can be more precise or introduce different aspects of a single concept that do not necessarily lead to the same conclusion.

(24) Ara bé, com que els registres constitueixen conjunts de trets **o** tries lingüístiques (i paralingüístiques, de fet) determinades socioculturalment, no totes les possibilitats de la graella de conjunt es fan efectives en els usos típics d'una comunitat comunicativa (o comunitat de parla). (ORAL, 24)

Nevertheless, since registers are sets of features **or** linguistic choices (and paralinguistic, in fact) socioculturally determined, not all the possibilities in the global grid take place in the typical uses of a communicative community (or speech community).

The reformulation introduced by *o* indicates a change in the author's perspective: registers are first presented as a set of features and then presented as a set of choices made by speakers. Since features and choices cannot be interpreted as synonyms, a change in the conclusions is triggered.

Reformulation by permutation ranges from the prototypical paraphrastic meaning to a non-paraphrastic nuance that highlights the transition from the inclusive to the exclusive interpretation of disjunction (cf. Cuenca 2001).

The quantitative analysis of the examples in our corpus is shown in Table 5.

Language	Markers	Cases
SPANISH		
Total Sp.: 180	<i>o</i>	8
Partial Perm.: 15 (8.4%)	<i>o sea que</i>	2
	<i>esto es</i>	1
	<i>en otras palabras</i>	1
	<i>en otros términos</i>	1
	<i>o dicho en otras palabras</i>	1
	<i>o dicho en otros términos</i>	1
TOTAL	7	15
CATALAN		
Total Cat.: 136	<i>o</i>	3
Partial Perm.: 6 (4.4%)	<i>això vol dir que</i>	2
	<i>o el que és el mateix</i>	1
TOTAL	3	6
ENGLISH		
Total E.: 81	<i>or</i>	7
Partial Perm.: 8 (9.8%)	<i>or to say the same thing in a different way</i>	1
TOTAL	2	8
TOTAL		29

Table 5. Markers indicating permutation

The conjunction *or* is again the most frequent reformulator used to express permutation, which, as a matter of fact, is a scarcely used move.

(25) Conviene dejar claro, sin embargo, que aquí nos vamos a ocupar sólo de la deixis situacional **o** egocéntrica y de su comportamiento en el registro coloquial en una de sus tres vertientes. (PRAG, 258)

It must be clearly stated, however, that we will only deal with situation **or** egocentric deixis here and its behaviour in informal register in one of its three aspects.

In (25) the author reformulates the concept *situation deixis* considering the way in which it is established, i.e., directly through the speaker's situation in discourse. Only from this perspective *situation deixis* and *egocentric deixis* can be made equivalent.

Similarly, in (26) *organ* and *module*, which are not synonyms, are made equivalent considering that both terms name the same reality from a different perspective: a general (or cognitive linguistics) perspective and a mentalist, generativist perspective.

(26) Advocates of the modularity position tend to adhere to the philosophical belief that linguistic structures are autonomous from more general conceptual structures with the language faculty being its own special mental organ **or** module. (COG, 31)

The rest of the markers, either simple (Sp. *o sea que, esto es*, E. *to be more precise*) or complex (Cat. *o el que és el mateix, això vol dir que*, Sp. *en otras palabras/términos, o dicho en otras palabras/términos*, E. *or to say the same thing in a different way*) occur only 1 or 2 times.

(27) Aquesta constatació ens mena a la segona hipòtesi plantejada. Segons els nostres resultats, la formació lingüística superior en català es revela com una variable independent vinculada poderosament a l'aparició de les MTL. **O, el que és el mateix**, els participants amb aquesta formació, que es repartien per força àmbits, produïen menys MTL en parlar català que els participants que no disposaven d'aquesta formació. (ORAL, 270)

This fact leads to the second hypothesis made. According to our results, advanced linguistic formation in Catalan proves to be an independent variable intimately tied to the presence of the MTL. **O, el que és es mateix** (lit.: 'or, what is the same'), the participants in this training, who represented different environments, produced fewer MTL when speaking Catalan than the participants who lacked this training.

In (27) the author reformulates the topic ("the advanced formation as an independent variable" in A) by changing the focus of the subject ("the participants in the formation" in A'). It can be, thus, observed that the same reality can be conceived and verbalized from different perspectives.

In summary, permutation allows the writer to put an idea under a different point of view so that a change in perspective or focus is triggered. This kind of reformulation highlights the graduality of paraphrase, since it points to weak paraphrastic meanings.

6. Contrastive analysis

The general results comparing the three languages in relation to the meanings and forms are summarized in Table 6.

Reformulation markers generally introduce expansion (190 instances) or reduction (176 instances) of the contents of a previous utterance, permutation being scarcely

represented in the three languages (29 instances) since it is associated to other non-paraphrastic markers.¹⁹ Reduction is slightly more frequent in Catalan (50.3%) and Spanish (49.4%) than expansion, whereas expansion is much more frequent in English (66.6%) than reduction (23.4%).

	Expansion		Reduction		Permutation		Total	
	# instances	# markers	# instances	# markers	# instances	# markers	# instances	# markers
Spanish	75 (42.1%)	14	88 (49.4 %)	8	15 (8.3%)	7	178 (100%)	22
Catalan	61 (44.9%)	11	69 (50.7%)	9	6 (4.4%)	3	136 (100%)	26
English	54 (66.6%)	5	19 (23.4%)	3	8 (9.8%)	2	81 (100%)	9
Total	190	24	176	14	29	8	395	58

Table 6. Reformulation markers: forms and meanings

Regarding the markers, the three languages, despite the difference in the number of forms, exhibit a gradient from meanings which are implemented by a higher variety of forms (expansion) to meanings implemented by a shorter list of forms (permutation). Expansion is generally marked by specific reformulators (Cat. *és a dir*, Sp. *es decir*, *esto es*, E. *i.e.*). In contrast, reduction and permutation are ordinarily introduced by the general conjunction *or/o*. It can be concluded that reduction and permutation are more specific meanings, and do not need a specific marker to be interpreted properly, while expansion often needs to be identified linguistically as such in order to make the message easily comprehensible for the reader.

Let us consider the most frequent markers expressing the two main moves from a contrastive perspective.

- a) As for expansion, Cat. *és a dir* occurs 23 times out of 61 (37.7%), while in Spanish the most outstanding markers are *es decir* and *esto es* (27 and 17 instances

out of 75 occurrences, 36% and 22.6% respectively). The most frequent marker in English is the abbreviation *i.e.* (25 instances out of 54, 46.3%).

b) As for reduction, the conjunction of *or* is predominant. Cat. *és a dir* occurs 6 times out of 69 (8.7 %) and *això és* appears only 2 times (2.9%); in Spanish *es decir* and *esto es* have been identified in 11 and 10 instances out of 88 occurrences, respectively (11.5%, 11.4%); in English only *namely* appears as a specific reduction marker (2 instances out of 19, 10.5%).

These results show that, despite the correspondence between *és a dir/això és, es decir/esto es* and *that is (to say)* in a literal translation, they are not functionally equivalent. When indicating expansion, *i.e.* is the functional equivalent to these Catalan and Spanish markers. As a consequence, translating systematically Cat. *és a dir*, Sp. *es decir* into E. *that is* could imply an error of frequency.²⁰

Similarly, Cat. *és a dir* and Sp. *es decir* are not interchangeable, according to our data, since Sp. *es decir* and *esto es* often share the same context of use, so that both reformulators can be equated to Cat. *és a dir* in most of the cases. The same can be said for Sp. *esto es* and Cat. *això és*, which, although they are verbatim correspondences (lit. ‘this is’), cannot be considered equivalent: the former (27 instances, 15.2%) is more frequent than the latter (7 instances, 5.1%).²¹

Another interesting point is the cross-linguistic difference in the polysemy of the markers. Excluding the general reformulator *or*, the rest of the markers in the English corpus exhibit only one semantic value:

- a) Expansion: *i.e., in other words, that is, this means that.*
- b) Reduction: *namely, to be more precise.*
- c) Permutation: *or to say the same thing in a different way.*

In contrast, several reformulators in Catalan (*és a dir, això és, dit en altres paraules, si es prefereixen altres paraules*) and Spanish (*es decir, esto es, o lo que es lo mismo*) can express either expansion or reduction, and Sp. *en otros términos* conveys expansion and permutation in our corpus. This difference in behaviour is consistent with Fernandez-Polo's conclusion that English authors usually select precise and unambiguous connectives, while Spanish (and Catalan) authors and translators do not avoid polysemous connectives.²²

7. Conclusion

The results of our analysis are based on a relatively reduced number of texts. However, it sheds light on tendencies which can be further studied in a larger corpus of analysis. Specifically, the contrastive analysis of the form and functions of the reformulation markers in our corpus gives evidence in favor of the following conclusions:

- (i) There is a remarkable difference in relation to the most frequent type of reformulation used in our corpus: reduction in Catalan and Spanish, and expansion in English. This suggests that English authors in the corpus usually reformulate to add more information to the concept. Catalan and Spanish authors reduce the contents or the implicatures of the previous formulation more frequently than English academics.
- (ii) Spanish and Catalan papers exhibit a greater variety of markers than English, and use more complex and variable reformulators.

- (iii) The disjunctive conjunction *o/or* is the general reformulator. More specific reformulators in each language are used mainly to express expansion.
- (iv) Some of specific and typical reformulators in Spanish and Catalan tend to be more ambiguous (or polysemous) since they can express two or in Spanish even three moves. On the contrary, English reformulators are generally specialized in expressing one move.
- (v) Equivalence in word-to-word translation does not mean that two markers are translation equivalents, since differences in meaning and especially in frequency must be taken into account.

From a contrastive point of view, our description shows the importance of dynamic equivalence between markers, based on the idea that cross-linguistic equivalence must take into account the context of use and the frequency of the marker rather than its form. Consequently, literal translations must be generally avoided.

NOTES:

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¹ Reformulation has not been devoted much research in English, though some markers have been analyzed or referred to in the literature about discourse markers. Schiffrin (1987: 9)

analyzes *I mean* as a discourse marker in the participation framework that has a metalinguistic value and indicates "a speaker's upcoming modification of the meaning of his/her own prior talk" (1987: 296). Blakemore (1996, 2002) has studied markers from a relevance perspective focusing on the procedural vs. conceptual meaning dichotomy. She considers that reformulation markers are conceptual and non-truth conditional. This approach is critically revised in Murillo (2004: 2060), who argues that reformulators can be a procedural indication of the recovery of explicatures of the host utterances" or can "contribute procedurally to the recovery of higher level explicatures".

² Thoiron and Béjoint (1991:101) express this idea in the following way: "[...] on peut voir les reformulations comme des symptômes de la présence de termes et qu'on peut donc les utiliser comme des outils de repérage".

³ Garcés (2005) also points out the function of paraphrastic reformulation markers in the establishment of semantic or discourse equivalence: "en este caso, la equiparación no viene dada por el significado lingüístico, sino que se origina como un hecho de discurso y es el hablante el responsable de establecerla en una situación y en un contexto determinados" (2005: 64).

⁴ Blakemore (1996: 338) uses the term *resemblance* implying "the sharing of logical and contextual implications" between the two utterances. The second utterance is, thus, a representation or rather an interpretation of the first one, so that reformulation is the recovering of a higher level explicature.

⁵ Several scholars consider reformulation as an equivalence operation at the metalinguistic level (cf. Bach, 1996; Cabré, 1995; Fuchs, 1982; Fuentes, 1993; Gülich and Kotschi, 1987, 1995). However, they all insist that equivalence is seldom complete and other meanings arise contextually. See Murillo (2004) for an analysis of different values implemented by English reformulation markers (namely, reference assignment, disambiguation, further enrichment, conclusions and consequences).

⁶ Two general types of reformulation, paraphrastic and non-paraphrastic, can be distinguished

(cf. Rossari, 1994). Paraphrastic reformulation connectives, such as *i.e.*, *namely*, *in other words*, *that is* and others, are related to the meaning of equivalence. Non-paraphrastic reformulation connectives, such as *in fact*, *actually*, *as a matter of fact* and others, foreground the contrastive nuance derived from the fact of presenting two contents as alternative formulations. In this paper, only paraphrastic reformulation is analyzed.

⁷ Other lists of reformulations markers can be found in Bach (2001a), Martín Zorraquino and Portolés (1999) and Ball (1986) for Catalan, Spanish and English, respectively. It is also worth mentioning the works by Casado Velarde (1991), Fuentes Rodríguez (1993) and Portolés (1998) which analyze different aspects of reformulators in Spanish.

⁸ For the purposes of this paper, we only consider variants the forms that include differences in some non-lexical words or in word order.

⁹ Many of the forms identified in Catalan and Spanish also occur in English, but they are not so frequently used maybe because repetition is not considered inadequate in English as it is in the two Romance languages.

¹⁰ Written English often includes some abbreviations from Latin (*i.e.*, *e.g.*, *viz.*), whereas no such abbreviations are generally used in Spanish and Catalan. Moreover, Fernández and Gil Salom (2000: 38) indicate that *i.e.* and *e.g.* are the most frequent reformulation and exemplification connectives respectively in their corpus of popular science articles. Excluding the general conjunction *or*, our results confirm this fact.

¹¹ Authors working on Contrastive Rhetorics have distinguished two styles in formal academic writing, which have been labeled with different dichotomies: *writer-responsible style* vs. *reader-responsible style* (Hinds, 1987), *form-oriented culture* vs. *content-oriented culture* (Clyne, 1994: 6.5), *explicit rhetoric* vs. *implicit rhetoric* (Fernández Polo, 1999). For an update revision of Contrastive Rhetoric in relation to academic discourse, see the special issue on contrastive rhetoric in *Journal of English for Academic Purposes* (Connor, 2004). It is also worth considering the reflections on the two basic academic styles presented by Čmerjrková and Daneš (1997) and the paper on digressiveness in Polish by Duszak (1997).

¹² We use the term *move* to refer to the specific process that reformulation introduce in discourse. From this perspective, reformulation is considered a dynamic process by which discourse can progress in different ways.

¹³ No cases of switch have been identified in this corpus. For examples of this move in Catalan, see Bach (2001a).

¹⁴ This is a clear case of expansion both in form and contents. Expansion in form may not be evident in example (6) because for the sake of brevity and clarity part of the second sentence has not been transcribed.

¹⁵ See Person (1998: 8.3) for an analysis of *i.e.* in specialized texts.

¹⁶ Exemplification is another instantiation of metalinguistic disjunction, that is, in a general sense, it also implies the formulation of an utterance or a content in a different way. When exemplifying, the speaker specifies an idea or a general concept by giving instances to illustrate it. In other words, exemplification is a discourse operation by which a concept is re-elaborated in an indirect way by means of one or several instances which represent the concept (cf. Cuenca, 2001: 2). As a consequence, the main difference between exemplification and reformulation is that the former is an inherent inclusive relationship, while the latter is prototypically an equivalence relationship. As much as inclusion and equivalence can be compatible in a specific context, their difference can be neutralized.

¹⁷ The term *denominative variation* is proposed by Cabré (Cabré, 1999; Cabré and Feliu, 2001) and Freixa (2002) in the framework of the Communicative Theory of Terminology.

¹⁸ Reduction takes places through denomination, an operation which is inverse to designation, a second level instruction typically associated with expansion.

¹⁹ It is worth noticing that in the extensive corpus analyzed in Bach (2001a), permutation was only implemented by non-paraphrastic markers. This fact can further explain the low frequency of paraphrastic markers indicating permutation.

²⁰ A tendency towards the literal translation of E. *in other words* into Sp. *en otras palabras* can be easily observed. This fact can be considered an error of frequency (on errors of frequency, see Rodríguez Medina, 2002).

²¹ In addition to this, *esto es* can express the three moves (expansion, reduction and permutation), while *això és*, its Catalan word-to-word counterpart, has not been identified in permutation. However, the low amount of examples does not allow generalizations at this point. On the polysemy of Sp. *es decir*, see Ciapuscio (2001).

²² Catalan seems to exhibit a hybrid behaviour, though it is more similar to Spanish as shown in Cuenca (2001, 2003). This fact cannot be attributed to the influence of English but is an inherent feature of Catalan prose, more concise and synthetic in expression than Spanish.

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