Metadiscourse signals and "hedging" in academic writing

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RESUMEN: El asunto que nos ocupa en este trabajo es en primer lugar desvelar las razones por las que ciertas formas lingüísticas a las que doy el nombre genérico de 'signos metadiscursivos' aparecen con relativa frecuencia en los artículos de investigación, y en segundo lugar cuál es el significado que dichos signos aportan al discurso. Para ilustrar la argumentación sobrela función que éstos desempeñan, utilizamos ejemplos de metalenguaje extraidos de diez artículos de carácter académico. Exponemos, asímismo, los rasgos principales de tales signos, al tiempo que intentamos hacer una clasificación provisional. Finalmente afrontamos el problema de establecer el valor pragmático que tienen a la hora de su interpretación .

ABSTRACT: The main questions I will examine in this paper is first the reasons why certain linguistic forms which I gather under the label 'metadiscourse cues' happen to come up with relatively frequency in academic reseach articles, and secondly the overall meaning they convey in discourse. A short corpus of ten research articles supply us with enough number of occurrences of such 'metadiscourse cues' to undertake a discussion of the role they play in academic writing. Further, I draw distinctive features of the phenomena involved while attempting a rough classification of them. Lastly, I tackle the problem of assessing the pragmatic value they seem to bear for the reader's interpretation.

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1. Introduction

The main job of the linguists has been often assumed to be that of searching for arbitrary regularities of language which are carried out independently of communicative intent. However, it is far from clear that communicative considerations do not play an essential role in explaining certain facts well accommodated into the structure of linguistic phenoma. It all crucially depends, of course, on the orientation in tackling the vast issue of natural language.

The purpose of this paper is to discuss how the comunicative intention of expositive written discourse produced by academic reseachers is brought to bear on the frequent use of certain language resources which have been variously labelled by analysts as 'metalinguistic comment', 'modulation' and 'hedging' among other terms, with fuzzy bounderies between those phenomena. I have chosen, however, to bring them together under the common denomination of 'metadiscourse cues' while trying to trace the distinctive features of each phenomenon involved. To this end, I will attempt to make a provisional classification of the various linguistic phenomena generically known as "metalinguistic signals" which have been often described as belonging to apparently different grammatical categories. As I will argue below, it seems highly relevant to gather all those indeterminate categories under a common body of analysis. Moreover, I feel that the description of all those facts which find no easy accomodation within discourse analysis is an urgent task to be undertaken by discourse analysts. This should hopefully lead to new way of looking at linguistic facts as they occur in connected discourse.

The examples I will use throughout this paper are taken from a short Corpus of ten 'academic research articles' in English1, which variously deal with the general topic of Linguistics, and are written by ten different authors. The procedural method of analysis I pursue here sidesteps the quantitative analysis carried out by a long established methodology in discourse studies and Applied Linguistics, one non trivial aim of which is to measure up the relative distributional frequency of language facts in the Corpus described. The present approach, then, by concentrating on chosen examples, aims at an approach which favours the vantage point of current Pragmatics. As a consequence, this paper is organized as follows:

- a) I will look, first, at the various phenomena embraced under the overall term "metadiscourse cue", in order to find some underlying relations among them.
- b) I will then discuss some attempts made at tackling the problem of determining the meaning and the pragmatic effects which those signals seem to convey in the analysis of written discourse, and more specifically, in the academic article as a genre. Now, since these 'cues' happen to come up interspersed here

^{1.} The articles chosen for the purpose belong to well known authors in Linguistics whose mother tongue is English and who have published their papers in well known periodical reviews of the discipline.

and there in academic research articles, their meaning is best described with the methodological working tools provided by discourse analysis. The assumptions made by analysts of this well established discipline are of invaluable help in sorting the researcher's choice of expressions.

c) Finally, I will be concerned with the discussion of the pragmatic effects brought about by the most frequently used 'metalinguistic signals', notably intensifiers, hedging and modality. I will lastly focus on the specific role they play in discourse interpretation with meanings ranging from fuzziness and flexibility to hesitation, vagueness, and last but not least, politeness.

2. ACADEMIC WRITING AND GENRE

Academic articles represent a well known genre related to the author's intentions, i.e. socially established cognitive frames which appear to share certain features such as: subject-matter, rhetorical structure, purpose and style.2

At the outset, I will proceed from the *a priori* assumption that verbal interaction is by its very nature a management of mental standpoints, be they social, ideological, emotional etc. Basically, the facts which concern us here can be simply stated as follows: an academic researcher when putting forward her intended 'thought' can make two major, alternative style choices: either she may simply choose the perspective of objective exposition, leaving aside all marks of subjectivity, which implies hiding away her personal views behind the protective 'fence' of objectively written propositions, or else, she may choose a more committed and therefore complex perspective which involves the use of what linguists have labelled "metalinguistic signals". Look, for instance, at the following two propositions:

- (1a) Man is an animal
- (1b) Scientificallyspeaking, man is an animal

It seems quite evident then that the former position entails that the cognitive representation of the speaker/writer's thought is presented as deprived of

^{2.} See different approaches to the topic in Swales J., *Genre Theory*, Cambridge: Cambridge U. Press, 1990, where the 'academic genres' have pride of place. According to Swales, "A genre comprises a class of communicative events, the members of which share some set of communicative purposes" (p. 58). Also see functional approaches in Vázquez I. and Hornero A. (eds), *Current Issues in Genre Theory*, Zaragoza: Mira Ed., 1996.

subjecthood, i.e with impersonal, universal validity. To illustrate this further, consider the example:

(2a) While P300 is the brain's standard response to any kind of surprise, its reaction to semantic surprise is N400. (RG)

However, this rule for 'objective expositive writing', which no doubt accounts for the highest percentage of the statements in academic research articles, is not adhered to when we are frequently met with linguistic material of all sorts which variously expresses modality, attitude, point of view etc. on occasions when the writer apparently adopts a more committed, complex position. Of this last type the most outstanding are, according to some analysts, the so called "higher order" proposition3, the "disjunct adverbial" and the "metalinguistic comments"4. See an example from the data:

(2b) It is, likewise, understandable that he should place it (item) where attention is at the highest, namely, at the beginning. (ECG)

Starting then from this linguistic material, I will go a step further into these language devices and more specifically in relation to the pragmatic meaning intented by the writers of academic topics. Also, I will argue that these are far from being the whole range of 'cues' which are used to single out the 'metalinguistic' phenomenon in the utterance. In particular, the so called 'hedges' have been widely recognized as an important device in communication strategies.

So far, a general statement can be made in relation to a writer as academic researcher, namely that all those metalinguistic expressions have the chief function of drawing the reader's attention to the writer herself as writer, i.e. the sender of the information in the very process of doing her research job. Indeed, the author of academic articles is often the reformulator of ages old topics which do not

^{3.} As it is discussed in Sperber D. and Wilson D., Relevance: communication and cognition, Oxford: Blackwell, 1986. According to these pragmaticians, the propositional form of an utterance is an interpretation of a thought of the speaker which can be either an interpretation of an attributed or a desirable thought or else a description of an actual state of affairs or a desirable state of affairs (see diagram on p. 232)

^{4.} Quirk R. et al.: A Comprehensive Grammar of the English Language. London: Longman, 1985. They focus mainly on "disjuncts" (which they split into 'style and 'content' ones) and leave the "metalinguistic comments" roughly undetermined and unaccounted for.

easily lend themselves to innovative views and this can well be the reason for frequent sceptical positions among the researchers. Little wonder then that the academic writer should try hard to focus the reader's attention on herself qua researcher.

3. METALINGUISTIC CUES

By using the first type of the categories just quoted the writer projects her cognitive representation as 'embedded' within another representation.

This can be illustrated by the example:

(3a) Funniness was shown to result where expectations were violated (RG)

Here the 'higher order' clause embedded in the syntactic construction is 'was shown' which can be paraphrased in the active as:

(3b) They show that funniness results where expectations were violated

The effect of the proposition is that the author, far from relying on her own personal thought, she displaces the responsibility of the purported meaning of the proposition to other not explicitly cited authors. The added effect of the passive is that of partial impersonality, therefore universal acceptance and validity commonly admitted or, at least, not called to questioning. Readers have then immediate access to the truth conditions of the statement while not actually questioning it *prima facie*. It is in fact the reader's reliance on the author's background assumptions a necessary ingredient that guarantees the normal unfolding of the topic of discourse. In fact, the attribution of 'funniness' here to the breaking of expectations is an undisputed point which is due to previous convincing demonstration (act of 'showing').

Moreover, the 'higher level' projecting sentence has often a more direct appeal to the reader while lending a distinctive dialogic ring to it, as can be seen in the following batch of examples drawn from our data among plentiful other.

- (4a) It should not surprise us in the least, then, that N should precede X (ECG)
- (4b) It follows from the preceding that conflicts might arise...(ECG)
- (4c) One wonders how appropriate it is to refer to them as 'translation' at all (EAG)
- (4d) One consequence of this is that whatever a given stimulus is interpreted...(EAG)

As for the second kind of category of 'cues' mentioned above, an illustration can be made with the following couple of variables:

- (5a) It is, unfortunately, far from clear what the position of DS is at this point (EG)
- (5b) Clearly, there are constraints on bridge-building in the case of wh-clefts (EFP)

Here again the reader is reminded of some 'metalinguistic' notions. In particular, the reader, necessarily involved in the speech situation, should cooperatively assume that the actual writer may choose to voice her own personal attitude, emotional or otherwise, about the proposition expressed. The commas placed just after the 'disjunts' are clearly apt visible marks of this shift in the two levels of the speech context. As happens in the examples, the 'disjunt' will most likely appear either in initial position or embedded in the middle of the verb phrase, just after the main verb. In any case, it is intonationally marked by a shift in the intonation contour of the utterance in which it is embedded. The effect is precisely that of an autonomous ellipted sentence within a sentence.

As in the previous example both (5a) and (5b) can be paraphased with a 'higher order' clause where the speaker's personal pronoun 'l' is the subject of the 'higher' proposition best expressed by a 'private', mental verb of cognition like thinking, believing etc. as in:

- (6a) I think it unfortunate that is is far from clear what....
- (6b) I believe it is clear that there are constraints....

Quite naturally, in most languages there is an 'elliptic' resource that accounts for the shortening of this type of disjuncts: *strictly, bluntly, broadly, roughly*, etc.

Finally, the third type of 'cue' referred to above as 'metalinguistic comments' would include a whole range of expressions making overt reference to the linguistic medium, such as the choice of expression or the manner in which they should be used. Quirk et al.5 provide several examples of metalinguistic

^{5.} In op. cit., 1985. On pages 616-618 Quirk et al. cite several examples of what they called "style disjuncts" to refer to cases where "the speaker wishes to emphasize that he or she alone is the authority". Rather than a question of 'emphasis', what we are facing, at all events, is an actual phenomenon of a shift in the speech presentation. No doubt this may sometimes involve cases of real emphasis as in: (Speaking for) myself, I find the work here quite pleasant, personally, where the first person is 'obstrusively egitistical', as the authors cited put it.

comments, especially those of the type they call 'reformulatory' which accounts for explicit, intentional shifts in the verbal expression used by the author. Note the two illustrative examples from our data:

- (7a) We are totally unprepared, caught off-guard, so to speak. (RG)
- (7b) Put in general terms, such instances are characteristized by the fact...(EAG)

In (7a) the author 'reformulates' through the use of a synonym in apposition a way of putting things in more felicitous terms. What she seeks, in fact, is a forceful term that should put accross the message with a maximum of expressive impact. In this particular case, she clearly uses the metalinguistic comment 'so to speak' so as to be allowed a metaphorical term, namely 'caught off-guard', instead of the run-of-the-mill 'unprepared'. Likewise, in (7b) the researcher feels the need to capture a generalization derived from the argumentative thread of assumptions he is putting accross to the readers.

In the remainder I will briefly discuss the role performed by some of the above grammatical and lexical expressions, particularly *intensifiers, modality expressions*, and *hedges*. The reason for this is that they are, perhaps, the most outstanding and the most widely discussed by discourse analysts.

4. "HEDGES" AS METADISCOURSE SIGNALS

Under the umbrella term 'metadiscourse signal' lies then a varied range of linguistic phenomena that have been examined by a number of linguists, though in a partial, fragmentary way6. Some of those studies are concerned with the use of 'hedges' in general language texts, other in specific genres, notably in scientific academic writing7. For the time being, before I turn to tackle the problem of

^{6.} Outstanding among other are Lakoff G.: "Hedges: a study in meaning criteria and the logic of fuzzy concepts" *Papers of the Chicago Linguistic Society*, 8, 183-228. Also Brown P. and Levinson S. "Universals in language usage: politeness phenomena" in Goody E.N (ed) *Questions of Politeness*. Cambridge: Cambridge U. Press, 1978. The former can be considered a pioneer study of 'hedges', but we have forerunning ideas in D. Bolinger's early articles.

^{7.} Also modality in "academic English" has been the target of several apt analysis by linguists such as Stubbs M., "A matter of prolongued fieldwork: notes towards a model grammar of English", Applied Linguistes, 7 (1), 1-25, 1986. Also Simpson P., "Modality in liteary-critical discourse", in Nash W. (ed.), The Writing Scholar: studies in Academic Discourse. Newbury Park: Sage, 1990. Also, Salager-Meyer F., "I think that perhaps you should: a study of hedges in written scientific discourse" The Journal of TESOL France, 2 (2), 127-143, 1995. Further still, Myers G., "Strategic vagueness in academic writing" in Ventola E. and Mauranen A., Academic Writing. Intercultural and Textual Issues. Amsterdam: John Benjamins, 1996.

'hedges', let me just remark that they are an essential component of academic writing, while the lack of them can be considered 'bad' style, according to genre's tacit, agreed upon rules.

Indeed, scientists are well aware that their actual contribution to the development of human knowledge is but a mere glimmer of light shed into the vast domains of dark zones awaiting to be researched. Of course they are also conscious that their contribution cannot be but a small step ahead, and only too rarely will it become a major breakthough. This is why, as Salager-Meyer suggests, "argumental arrogance and exuberance are not well regarded by the scientific community; whereas in contrast, humility, coyness and cautiousness are"8.

This last view can be helpful for setting the scene. We can make a broad summary of the assumptions presented so far and argue that some of the 'meta-discourse cues' -perhaps the most outstanding ones- are those signals whereby an author makes her personal voice heard so that her utterances would not sound too assertive while putting across her own personal believes and positions.

G. Lakoff was one of the first to explore the expresive values of the phenomenon, as he stressed that natural language sentences are context dependent so they are often treated as "neither true nor false and nor nonsensical". He further suggested that by using hedges a writer expresses her intention of being unprecise and inaccurate. Hedges then, according to Lakoff, are "words or phrases whose job is to make things more or less fuzzy"9.

According to Carter and McCarthy10, 'hedging' is a general term used to describe "the strategy when the speaker or writer wishes to avoid coming straight to the point or to avoid speaking directly". Though true to some extent, such restrictive meaning is, however, not shared by some other linguists who are prepared to allow in other expressions which do not exactly imply "avoidance of directness". Therefore, the above definition applies to cases like (7a), but it is far from being the true in (7b):

(7a) Intensifiers and verbal degree adverbials give us much an impression of two subclasses of a single class (DJA)

^{8.} Salager-Meyer F., "Hedges and contextual communicative function in Medical English written discourse" English for Specific Purposes, 13 (2), 149-170.

^{9.} Lakoff G., op. cit., p. 462

^{10.} Carter R. A. and McCarthy M., Exploring Spoken English, Cambridge: Cambridge U. Press, 1997, p. 16.

(7b) Strictly speaking, implicatures are assumptions the hearer makes.

Therefore, we should approach 'hedging' as broader pragmatic signal which has various linguistic realizations as well as various relevant functions to fulfil in discourse, even if the *litotes* or understatement is indeed a chief one. Likewise, the idea of vagueness and fuzziness has been repeatedly suggested by other linguists since Lakoff, no matter what is the orientation they pursue. Some, like the sistemic functional linguists M.A.K. Halliday and J.R. Martin, quite coherently include this phenomenon within a wider metaphenomenon, which they called 'interpersonal metafunction' of language set in contrast to the 'ideational function'11. For them the personal attitude is best expressed by 'epistemic modality' verbs and 'modal adjuncts'. I will turn to this below in the present paper.

It goes without saying that 'metadiscursive cues' are most commonly used in spoken discourse, as some analysts note12, rather than in written genres, since the close distance intercourse and the casualness of speech undoubtedly influence the expressions of personal attitude and views. When bringing together the two modes of discourse, the writers seem to value their own personal 'speaking voice' while engaging in a close, interpersonal relationship with the reader. An example will be illustrative:

(8) Conceivably, the attitude of desire might parallel the attitude of belief (S & W)

The sentence adverbial here, otherwise referred to as "disjunct", -in Quirk et al.'s terms- has a complementary meaning to the tentative meaning of the modal verb, which is a mark of a deliberately doubtful and modest statement. Both belong to the writer's attitude towards the proposition endowed with 'truth value' and a complete 'logical form' (a state of affairs) of its own. The two italisized words are then additional 'metadiscursive cues' which convey a hesitating, tentative personal point of view, which should be interpreted by the reader as

^{11.} See Halliday M.A.K., Introduction to Functional Grammar, London: Arnold, 1985. As the father of this approach, he is responsible for the setting of the three-layer vision of language well before the present publication. In fact this model harks back to his early publications in the 60's. See, for instance his article "Language structure and language function" in Lyons J. (ed), New Horizons in Linguistics, Harmondsworth: Penguin, 1970. There three simultaneous functions seem to be constantly operative on language use. Also see a later development of systemic ideas in the comprehensive account of Martin J.R., English Text: structure and system, Amsterdam: John Benjamins, 1992.

^{12.} Biber D., Variation across speech and writing, Cambridge: Cambridge U. Press, 1988.

conveying extra weak implicatures to be added to the propositional meaning.

Brown and Levinson13 attempt a definition which has some bearings on the case; 'hedge', in their view, should be dealt with as either a 'minimizer' or 'emphasizer' of the propositional content of the utterance:

"a particle word or phrase that modifies the degree of membership of a predicate or noun phrase in a set; it says of that membership that it is partial or true only in certain respects, or that it is more true and complete than perhaps might be expected"

This rather abstract definition can, quite interestingly, be substantiated in human interactive terms. The authors, in fact, take up a pragmatic standpoint that focuses on face-to-face interaction, and, briefly, they argue that 'hedges' are basically strategies for minimizing the 'threat to face'. This last term should be understood in Brown & Levinson's 14 sense, i.e. a social linguistic fact that lurks behind every act of communication. Consider the examples:

- (9a) It is *certainly quite* wrong to interpret innovations *simply* as changes in subject matter (RH)
- (9b) One might perhaps argue that argumentation is a very strong type of discourse (TV)

The statement in (9a) comes close to an 'understatement' by virtue of the italisized words, which have originated in the author's purpose of putting forward a proposition somehow tinged by a softening shade which has the undeniable effect of 'toning down' the statement, as it were. In (9b), by using the modal verb 'might' together with the epistemic adjunct 'perhaps', the academic researcher shrinks back, as it were, from claiming that such type of discourse is strong, presumably in order not to 'threaten the face' of her readers by making her statement sound too assertive and impositive.

All in all, the academic writers cited in my corpus do not wish to appear too assertive, or inmodest or too convinced of their own persuations and orientations. Otherwise they would be threatening the 'negative face' of the reader by looking too authoritative. The fast moving, dynamic world of scientific ideas is undoubtedly the best councellor in these matters.

^{13.} Brown P. and Levinson S., *Politeness. Some Universals in Language Usage*, Cambridge: Cambridge U. Press, 1987.

^{14.} Ibidem.

5. INTENSIFIERS AS IMPLICATURES

The wide class of 'intensifiers' is an interesting case 15. Syntactically, the 'intensifier', Allerton argues, "can be split off from the general class of adverbs because of its especial characteristic of modifying adjectives" 16, but it is quite evident that in the rag bag class of adverbials one finds a substantial amount of overlap with adjectives. In particular, the adverbials of degree bear striking similarities to intensifying adjectives. Now, compare the following two examples:

- (10a) We will slightly touch upon those questions
- (10b) We will tackle this in a slightly different manner

Semantically too, there are more similarities than differences between the two classes of modifier. From that point of view, then, 'slightly' is a 'degree' adverbial, although there are minor types of intensifiers which refer to 'manner' and 'aspect'. The three semantic types constitute the main subclasses of modifiers of lexical verbs, as Allerton suggests. 'Aspect' intensifiers can be exemplified by adverbs that typically occur with adjectives which denote an assessment in some specific field of study. Which means that they are quite similar to sentence adverbials approached by Quirk et al.17 as 'viewpoint subjuncts', only that they may function as adjective modifiers too.

Within the scope of pragmatics, however, they are not so relevant as 'manner' intensifiers, which describe the manner in which the adjectival or verbal quality is displayed, and moreover, they are to be taken as adding a further shade or connotation to the nuclear meaning. This, put in pragmatic terms, means adding some extra effects to be relevantly recovered by the reader.

Yet, Salager-Meyer includes within a quite unaccountable for taxonomy of "hedges" of her own a category she labels "emotionally charged intensifiers" which are supposed to project the author's reactions and among which she mentions: "extremely", "dishearteningly", "particularly", "unexpectedly" and

^{15.} While downtoners "have a general lowering effect on the force of the verb", Chafe and Danielewicz treat those forms as actual 'academic hedges' due to their frequent use in academic writing. See further the article: Chafe W. & Danielewicz J. in "properties of speaking and writing" in Horowitz R. & Samuels S.J. (ed.), Comprehending Oral and Written language, New York: Academic Press, 1986.

^{16.} Allerton D. J., "English intensifiers and their ideosyncracies" in Steele J. And Threadgold T. (eds.), Language Topics II. Amsterdam: John Benjamin, 1989, 15-31, p. 16.

^{17.} Quirk R., et al. op.cit., 1985, p. 566.

"surprisingly"18. Now, it is hard to agree with some of them as belonging to a context that bears effects with 'emotionally charged' meanings related to adjective qualities. They can display, by contrast, metalinguistic traits:

(11a) That the addressee is ignorant has an extremely important consequence (ECG)

Furthermore, some adjectives would also qualify as semantically loaded 'intensifiers', if we are really interested in the contextual effects they lend to the utterance. In the data we found more than one of the kind:

(11b) (It) should not be seen as a startling coincidence (EFP)

An obvious remark about these is that they can occur in propositions that are already authorial 'comments', which means that the whole utterance is taken as metalinguistic, and not just the intensifier concerned. When this is not the case, it is difficult to judge -context will tell, however, in a more or less ambiguous way- whether they are 'emotionally' charged or just intensifiers used with conventional value. The reader may tilt the balance of interpretation in favour of one or the other.

However, it is obvious that they do not bear comparison with the adverbial of the 'subjunct' type:

- (12a) Interestingly, this utterance has a double meaning.
- (12b) Prosodically, the utterance has a double meaning.

Although, formally the sentences (12a) and (12b) resemble each other, most pragmatic analysts would agree that the propositional meaning expressed by the two utterances are far from being similar. The former is a 'meta-discourse cue', whereas the latter is a 'taxonomic' disjunct which allows embedding and whole integration in the main clause. Note, however, the difference with a similar example:

(13) The information is then easily accessible

^{18.} Salager-Meyer M., op. cit. 1994, p. 154.

Here the explicit meaning could be interpreted in a double way, as much "accessible and also easy" as "accessible in an easy way". Still the inference that most interpreters would draw from here is that "it is accessible". So, again, the adverbial "easily" cannot be read as realising the function of a meta-discouse 'disjunct' or, as some would prefer to call it, a 'sentence adverbial'. In spite of the obvious differences, the semantic borderlines between so called 'manner' and 'degree' intensifiers are often uncertain.

In sum, this last point should be an apt reminder that most classifications are just mere, unreliable and provisional taxonomies which may be useful for one particular purpose and yet be also nonsensical for other purposes. In fact, the clear 'metadiscursive' quality in these cases lies not in the class of word itself but rather in the quality of the assessment it purports, no matter the degree of independence or embeddedness those categories show in the structure of the sentence. Indeed, this is also the case with modal verbs, to which I will turn below.

One can hardly deny that there is a line of connection between the 'intensifiers' and the 'hedges', if only because they carry the implication of being used as assessment signals. Chafe remarks that downtoners are among the 'evidentials' used to indicate reliability19. Some pragmaticians assume that what is in fact lurking behind all those assessment cues is Grice's maxims -especially those of quantity, quality and manner. Now, look at the example:

(14) This makes a contribution to this conference by no means easy (ECG)

This utterance is a 'metalinguistic comment' inserted in an article. The adverbial 'by no means' is an 'intensifier' -of the downtoning type- which seems to stress the negative assessment made by the author. Furthermore, for some linguists this would point to a conversational implicature that would account for the breakage of a rule of quantity and, perhaps, of manner too. However, this point is hard to maintain, if we bear in mind that "the calculation of implicatures is a matter of non-demonstrative inferences" 20.

I cannot agree more with the position held by Sperber and Wilson, when they argue the point more convincingly thus:

^{19.} Chafe W. L., "Linguistic differences produced by differences between speaking and writing", In Olson D.R. et al. (eds.), *Literature*, *language and learning*, Cambridge: Cambridge U. Press, 1985, pp. 105-123.

^{20.} Sperber D. and Wilson D., op. cit., 1986, p. 201.

"Most Griceans pragmatists assume without question that any pragmatically determined aspect of utterance interpretation apart form disambiguation and reference assignment is necessarily an implicature"21.

As it happens, implicatures are assumptions that can be recovered by *inference*, i.e. the automatic application of deductive rules so as to draw a conclusion from some given premises. This does not mean that many utterances communicate 'weak implicatures' rather than fully determinate ones, which are more costly to recover. Now, intensifiers belong to the kind of words which do not set very tight constraints on the utterances and therefore they tend to be processed by the reader with costly effort22.

Clearly, many of the "hedges" mentioned above have effects that would be too hard to recover, unless our inferencial work is fed by the reader's background knowledge of the local context of academic article genre writing. That is probably the way, for instance, we have access to the meaning of the emphatic negative in (14) above or the informal disjunct in (12a).

6. EPISTEMIC MODALITY

The expositive type of texts and more specifically 'academic writing' make a profuse use of "modality" as several analysts have shown lately.

In Halliday's23 modality framework he distinguishes between 'modalization' and 'modulation', the former having to do with the intermediate degrees between the two poles of positive and negative propositions and the latter with the two poles related to proposals. Now, the intermediate points express various degrees of certainty. In his view then: "It is these scales of probability and usuality to which the term 'modality' strictly belongs"24.

^{21.} Sperber D. and Wilson D., op. cit., 1986, p. 183.

^{22.} Blakemore D., *Understanding Utterances*, Blackwell, 1992. She recalls that undertanding utterances involves "the construction of mental (propositional) representations which undergo inferential computations" (p. 150). However, she also suggests, against Grice, that some expressions (room for some metalinguistic cues is indeed possible here) have *procedural* meaning, rather than representational one.

^{23.} Halliday M.A.K., An Introduction to Functional Grammar, London: Arnold, 1985 (2nd ed.1994). This is perhaps the best functional grammar available so far which is oriented towards the analysis of discourse. Text, in fact, is a fundamental semantic unit for this linguist whose influence has been remarkably extensive, especially in the field of Stylistic studies.

^{24.} Halliday M.A.K. op. cit., p. 89.

As J. Lyons has also argued, non-factive utterances that contain a modal verb (which include verbs, adjectives and adverbs) express epistemic modality25. In fact, modality applies cross-categorically through forms like *perhaps*, (be) likely, probable, surely, possibly, maybe etc. are clear signals of epistemic value.

Furthermore, 'epistemic modality' can be broken down into subjective and objective. The difference is that objective modality is accountable in terms of a more committed position of the speaker towards the factuality of the proposition, whereas subjective modality conveys the meaning that the speaker is bound to appear less confident and hesitant. For Lyons, as for Palmer26, epistemic modality is concerned with the semantic space between the positive and the negative values of assertive knowledge. The speech acts performed are then assertions of non-factuality:

(15a) It may seem perverse to have compared two concepts of logical form...(RMK) (15b) It will be noted that in our study we have explained a fact of sentence grammar (ECG)

The first instance (15a) shows that the background proposition expressed in the main sentence is qualified and challenged with an indirect form meaning a personal perspective in an otherwise impersonal construction and verbal agency. The effect is then that the comparison in question is tentative and provisional, and subject to criticism therefore. The second in (15b), on the other hand, shows a more self-confident subject (expressed by the cooperative "we") due to the epistemic modal used in the assertive utterance. Following Palmer, 'epistemic' applies not only to modal systems which "basically involves the notions of possibility and necessity, but also to any modal system that indicates the degree of commitment by the speaker to what he says"27. This implication seems quite interesting in our context, since it is the judgment of the academic writer when producing her utterances that concerns us here.

^{25.} Lyons J., Semantics. 2 vols., Cambridge: Cambridge U. Press, 1977. He explicitly paraphrases the meaning of subjective 'epistemic' modality: "statements of opinions, or hearsay, or tentative inference, rather than statements of fact", p. 799.

^{26.} Palmer F.R., *Mood and Modality*, London: Cambridge U. Press, 1986. He opposes 'epistemic' to 'deontie' which is concerned with influencing actions, states or events. But he further includes 'dynamic' modality which is concerned with ability and volition, which many authors do not treat under the concept of modality at all.

^{27.} Palmer F. R., op. cit., p. 51.

Now, Frank Palmer, in the line both of Jennifer Coates28 and Kiparsky, draws a distinction between factive and non-factive assertions, which in turn presents a cline that ranges from weak to strong non-factives, set in contrast to clearly non- assertive epistemic modality. Consider the instance from the data:

(16) It would a be a mistake to think of literary dialogue as a direct transcription (MT)

Rather than asserting the proposition complement, the writer chooses an indirect modalized form out of both modesty and respectful behaviour towards his readers. According to Brown and Levinson in their study of politeness, questions beginning with 'would' and 'could' (primitive past tenses) are more hypothetical than those formulated with 'will' and 'can'29. Although these indirect forms are highly conventional, we can see here, however, the principle of politeness at work, even if the writer-reader realationship is far from being close and interactive as in face-to-face communication.

'Epistemic' modality is then an essential ingredient of the article writing style30. In addition, its use coincides in the 'metalanguage' sections which are uttered by the researcher while expressing her viewpoints: commenting on the content, assessing others' opinions, giving indirect indications to the reader, etc. the relevant interpretation then would be making use of the knowledge of the genre:

- (17a) It might be thought that in other circumstances the intended interpretation would be harder to pin down (S & W)
- (17b) It is, of course, *possible that* this intuition will turn out to be elusive, but *it seems* worth examining (EAG)
- (17c) One would expect this same principle to be applied to translated works (EAG)

^{28.} Coates, J., *The Semantics of modal auxiliaries*, London: Croom Helm, 1983. She dwels on the distinction between factive/no-factive which raises some paradoxical spin-offs which she examines in detail.

^{29.} Brown P. & Levinson S., *Politeness: Some universals in language usage*, London: Cambridge U. Press, 1987, p. 173. The authors consider negative politeness in all speech acts involving the torcing of the addressee to act. By means of polite usage of modals, the balance is redressed and the face of the addressee is saved. See also the fundamental Leech G.N., *Principles of Pragmatics*, London: Longman, 1983, where he makes an (too) extensive study of politeness rules of various types.

^{30.} In a paper I have also examined the frequency of modality in scientific articles in López Folgado V., "Modalization in English scientific texts" in Barrueco S. et. al. (eds.), *Lenguas para Fines Especificos (III)*, Alcalá: Serv. Pub. Univ. de Alcalá, 1994, pp. 177-188.

In the examples the personal first person expression gives way to impersonal subjecthood. Nonetheless, this strategy of hiding behind non-personal syntactic constructions carry the implicature that it is the writer who is voicing her views on the topic. To sum up, it can be suggested that in academic writing the expected modesty of the writer is constantly present in the reader's mind.

7. CLASSIFICATORY PERSPECTIVE

Many analysts have attempted to classify the metalinguistic signals in a network of related categories. But, as is often the case, linguistic facts are not amenable to clear cut categorial sorting, in spite of the efforts of formalist grammarians to pin down and set into neat pigeon-holes all linguistically coded material they come across. In effect, there are a whole range of non-discrete elements in language which resist being taxonomized in one single categorial classification, either in terms of grammatical form or communicative function31. Today's pragmatic analyses bear witness to the weaknesses that beset context-free classification.

Formal categories are often carriers of multifunctional meanings since, as is well known, there seems to be no one-to-one simple correspondence between form and function. However some authors have suggested a list of linguistic facts which aim at covering all the phenomena available as expressive resources of hedging. Quirk and al.32, for instance, elaborate on the category of 'disjunct' and they split it up into two:

- a) "Style disjuncts", which they convey the speaker's comments firstly as to the modality or manner (eg put bluntly, briefly, quite simply, if I may say so) and secondly as to respect (in broad terms, personally, literally).
- b) "Content disjuncts", on the other hand, are used in order to make a remark firstly as to the degree of or conditions for truth of content (undeniably, apparently, very likely, certainly) and secondly as to value judgement of content (oddly enough, rightly, unjustly, remarkaby, to my regret, of course, even more important).

^{31.} Some modern grammarians are perhaps exceptions to this rule. A special mention deserve T. Givón and some Western Coast linguists, like P. Hopper and S. Thompson among others, who have managed to make room for pragmatic and cognitive facts in their functional approaches.

^{32.} Quirk R., Greenbaum S. and Svartvik J., A Comprehensive Grammar of the English Language, London: Longman, 1985, pp. 615 ff.

The interest of this classification lies in the fact that it introduces some order in the traditional rag bag category of adverbs and adverbial expression. The concept of "disjuncts" is itself a relevant finding for grammarians who are concerned with meaningful functions. In this connection, I would also like to mention Downing and Locke's work which makes a rather limited use of the term "hedge" where modality and negation are clearly involved:

"Some negated modal verbs are used by speakers to avoid committing themselves to an opinion. The responses I wouldn't know, I wouldn't like to say, I can't think and I can't say have this pragmatic function"33.

This notwithstanding, our main interest lies in academic writing rather than in ordinary conversation, where there can be little doubt of the common use of metalinguistic expressions with the purpose of saving the 'negative face' of interlocutors.

Brown and Levinson34 also propose a highly elaborate taxonomy of "hedges" based on Grice's pragmatic *maxims*. It is as follows:

- 1. Hedges encoded in particles: tag questions, etc.
- 2. Adverbial clause hedges: In fact, no way, etc.
- 3. Quality hedges: absolutely, really, etc
- 4. Quantity hedges: I mean, just, too, etc
- 5. Relevance hedges: by the way, oh I know, by the way, etc
- 6. Manner hedges: to be clear, you see what I mean, etc

It is apparent that both formal and functional criteria have been adopted here. This is another way of looking at things in an effort to bring some order into the otherwise chaotic material. But the above taxonomy cannot resist the critical eye of pragmaticians, especially of those who adhere to post-Gricean persuations and are led by the critique levelled at Grice's maxims by Sperber & Wilson35. In

^{33.} Downing A. And Locke Ph., A University Course in English Grammar, New York and London: Prentice-Hall International, 1992, p. 184

^{34.} Brown P. And Levinson S., op.cit, 1987.

^{35.} In several places of their work, *Relevance: cognition and communication*, Oxford: Blackwell, 1986, they depart from Grice's pragmatic 'implicatures' based on several maxims, while they hammer their point home when they assume that just one single maxim, namely *relevance*, is enough to account for the interpretation of human communication.

this particular case, Grice would be willing to accept that when academic writers use one of the above expressions they explicitly comply with the conversational maxims.

If this assumption is correct, then they are 'conversational implicatures', according to Grice, since they serve the purpose of maintaining the cooperative behaviour between interlocutors. The Q-principle goes: "....make your exchange as informative as is required, and not more informative than is required, for the current purposes of the exchange"36 This principle is taken to be biased in favour of the hearer's interest and is complemented by the R-maxim (of relation) which is biased in favour of the speaker's interest (roughly, "come to the case in point and do not make more cognitive effort than is needed..."37. But, a more plausible way of looking at them would suggest that the above cited hedges are, in fact, inferences derived from explicitly communicated code that only need to be 'enriched'. Put in pragmatic terms, they are kinds of explicatures38.

I will discuss this point briefly. Now consider the example:

(18a) Predictably, these solutions have succeeded only in part (E-A.G)

The content of the utterance is, of course, the sum of the proposition plus the metadiscursive cue "predictably" which is again another (projecting) proposition. The inference based on the explicit coding of the "disjunct" facilitates our relevant understanding of the intended meaning, i.e. that "it can be predicted" by experts that the success of the solution in general was the case. The shift from the meaning of the adverb to the 'higher order' projecting verb only needs a small step in the semantic decoding. So far so good. For Paul Grice39, nonetheless, this interpretation would amount to being decoded and 'enriched' through strong

^{36.} Grice H. P., "Logic and conversation", William James Lectures, 1967. Printed in Grice H.P. Studies in the way of words, Cambridge (Mass.): Harvard U. Press, 1989, pp. 1-143.

^{37.} See a more coherent reformulation of Grice's pragmatic principles in Horn L."A new taxonomy for pragmatic inference: Q-based and R-based implicature" in Schiffrin D. (ed.), Meaning, form and use in context (GURT '84), Washington: Georgetown U. Press, 1984, pp. 11-42.

^{38.} According to Sperber & Wilson in op. cit., p. 182, an explicature is an assumption explicitly communicated, i.e. "if it is a development of a logical form encoded by the utterance", whereas an implicature is an assumption is implicit but it is more or less made manifest by the speaker and has therefore to be inferred in order to get the relevant interpretation. See further Blakemore D., Understanding Utterances, Oxford: Blackwell, 1992, pp. 91-120.

^{39.} Grice H.P., "Presupposition and conversational implicature" in Cole P. (ed.), *Radical Pragmatics*, New York: Academic Press, 1981, pp. 183-98.

'conversational implicature' based on his cooperative maxims, as was also also further suggested by Brown and Levinson. It seems then that the pragmatic status of such metalinguistic phenomena is a disputed fact.

Take, for instance, the maxim of *quantity*, which somehow suggests the ideal moderate use of 'intensifiers'. The writer is supposed to have this maxim in mind unless he deliberately wishes to 'flout' it for some especial reason. It seems a trifle idle, however, to have a maxim in mind and then make frequent breakings of it whenever the occasion arises. It is, rather, by looking at the cognitive effects as well as the processing effort they require to get recovered, how we should have access to their intented meaning. Thus, 'only' in (10) constraints the way in which the positive form of the utterance is intended to be interpreted. The explicature here would be something like the following:

(18b) Experts predict that these solutions have succeeded as a whole *but* in some cases they have not succeeded.

Now the obvious contrastive but which is implicit in the decoding of the meaning does not carry an implicature itself, but surely it would be more correct to say that it is the contextual effects produced by the first segment which have an influence on the interpretation of the next. Now, the 'mitigating' or 'downtoning' effects of hedges seem to act in a similar manner.

8. A REVISION OF METADISCOURSE CUES

Metalinguistic forms are likely then, as I stated above, to be integrated by more numerous categories than the ones hitherto described. The underlying assumption that provides unity to all this vast region of language is no other than the context of utterance interpretation, i.e the on-line processed pragmatic interpretation of the grammaticalized material in context. Therefore, I will make an attempt here to give a further classification of the material found in the data of the ten articles under examination, with no intention either to provide an exhaustive description of the categories involved or to claim total accountability of the material shown. They are basically but mere examples set in context. Hence, all the examples shown are to be discussed not as off-line systemic paradigms but rather as linguistic items that should be interpretable in the on-line use of actual utterances.

The groups involved are the following:

- a) "full verbs" (many of them performatives) projecting the discourse utterance, which serve as I-personal verbal introductions to the proposition: I am referring to, I agree that, I will argue that, I report in this paper, I surmise that, may I suggest that...
- b) "epistemic modal verbs" and like forms which modulate the degree of certainty of the meaning of the verb concerned: may I say that, It could be like that, It must be true, one should stress, etc
- c) adverbial "disjuncts" which express the author's attitude towards the proposition he's about to make, and who chooses to seek the support of other sources of information: broadly speaking, admittedly, arguably, generally...
- d) phases used as "reformulators" of the linguistic form of the utterance: to put it briefly, bluntly, needless to say, to state it clearly, to come straight to the point, to say the truth, if I may say so, etc.
- e) vague expressions, or properly "hedges", which evoke a not too accurate, or (not necessarily) polite vagueness: well, sort of, I mean, how could I put it, see my point, etc. Also intensifiers of the type of 'downtoners' and 'amplifiers' which have non-propositional functions and signal interaction with the reader in various ways.
- f) "Intensifiers" which are embedded in the clause structure but bear some judgment of the author that can be felt to belong to his own personal voice. Unexpectedly true, irredimibly innocent, of staggering vituosity, surprisingly feigned emotions.
- g) Lastly, "text organizers", which are means employed so as to put order in the actual content or rhetorical parts of the text. They are sometimes the only material where the communicative behaviour of the researcher is fully shown: now look at next example, now note this point, hence, it follows that.

Needless to say, all the above mentioned groups of subcategories are relevant metadiscourse "cues" which convey similar meanings to those of "epistemic modality" (some functionalist even treat some of the above cited expressions as interpersonal metaphors) because they show the cognitive attitude and position of the speaker in relation to the utterance they produce.

CONCLUDING REMARKS

It can be argued that 'meta-discourse' signals do come up rather frequently in all types of communication (even in literary genres) and they are realised mainly through higher order propositions, modality and hedges. It can show how communication becomes interactive as it makes us feel the presence of the other end of the communication line, the reader as interlocutor. In a highly interactive communication, like conversation or a personal letter, those 'cues' are even more frequent, as some analysts have found.

The presence of this type of cues means that discourse is a continuous interface of linguistic phenomena, crucially split up by the watershed of that type of discourse which is "objectively informational" (the listener is absent or remote) and that which accounts for "personal interaction" showing many of the features of face-to-face exchanges. Both of them are often so tightly interwoven that it is not sometimes easy to trace the boundery line running in between. This, in sum, accounts for the difficulties discourse analysts do encounter, especially when approaching the type of utterance which has come to be known in recent years as 'metadiscourse cues'.