

The Pragmatic Rhetorical Strategy of Hedging in Academic Writing

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Abstract

In academic discourse, hedging is a crucial rhetorical strategy mainly used by writers to mitigate the argumentative force of knowledge claims in order to reduce the potential threat that new claims make on other researchers, and thus minimise possible criticism from peers (Myers, 1989). In the social interactions between writers and readers, hedges also represent a useful linguistic device used by writers to gain community acceptance for a contribution to disciplinary knowledge (Hyland, 1996, 1998). In this paper, I review the concept of hedge since its origins, and attempt to explore its main pragmatic functions in academic discourse. I finally provide a taxonomy of the most frequent linguistic strategies which writers use in English research articles with the function of hedging, namely indetermination, camouflage, subjectivisation and depersonalisation.

1. Introduction

In the social interaction which implies a negotiation between writers and readers, in order to gain community acceptance for a contribution to disciplinary knowledge, hedges become an important rhetorical strategy used by researchers in academic writing, as they allow writers to demonstrate that they are familiarised with the discourse conventions of particular academic disciplines (Hyland, 1994; 1998). Hedges also allow writers to reduce the force of scientific claims and present themselves as 'humble servants of the discipline', as stated by Myers (1989: 4). Indeed, the making of a claim threatens the general scientific audience, because it is a demand for communally granted credit. The claim also threatens the negative face of other researchers, because it implies a restriction on what they can do from that moment onwards (Myers, 1989). In this socio-pragmatic dimension hedging is primarily viewed as the process whereby authors mitigate their statements in order to reduce the risk of opposition and minimise the face-threatening acts that exist behind every act of communication.

The word hedge is an ordinary language term used technically rather than a fully technical term (Skelton, 1997). The Longman Dictionary of Contemporary

English (1987: 488), for example, defines this term as “something that gives protection”, and the verb to hedge is described as “to refuse to answer directly”. The Collins COBUILD English Language Dictionary (1987: 677) defines the function of hedging as “If you hedge or if you hedge a problem or a question, you avoid answering the question or committing yourself to a particular action or decision”. Thus, the ordinary language meaning of hedge has to do mainly with such matters as mitigation of certainty, which is associated with defensiveness, evasiveness, and the avoidance to personal commitment. Dictionaries of linguistics do not normally mention either the concept or the term hedge, with the exception of the Dictionary of Stylistics (Wales, 1989: 215) which refers to the semantic origin of the concept and classifies it as belonging to the field of discourse analysis and speech act theory. This dictionary defines hedging as “qualification and toning-down of utterances and statements in order to reduce the riskiness of what one says”. The motivation for its use is given as “mitigation of what may otherwise seem too forceful” and the desire to show “politeness or respect to strangers and superiors”.

Hedging has been generally taken to mean those expressions in language which make messages indeterminate, that is, they convey inexactitude, or in one way or another mitigate or reduce the strength of the assertions that speakers or writers make. In academic discourse, rather than associating hedging with the function of evasiveness, it is primarily considered as an interpersonal rhetorical strategy used by writers to indicate either a lack of complete commitment to the truth value of a proposition, or a desire not to express that commitment categorically.

Most recent studies on this relatively new area of research support the inclusion of the explicit teaching of hedging in academic writing programmes (e.g. Salager-Meyer, 1994; Hyland, 1998). However, probably because hedging is a socio-pragmatic phenomenon there is little agreement among linguists about what linguistic devices should be and should not be considered as hedges (cf. Clemen, 1997). Whereas some adopt a broad classification (see, for example, Salager-Meyer, 1994, 1998; Hyland, 1994, 1996, 1998; Lewin, 1998), some of them insist on a narrower classification (see, for example, Crompton, 1997, 1998).

In this paper, I explore the issue of hedging in academic discourse. I start with a review of how the concept of hedge has been viewed in the literature since the term was initially introduced in linguistics by Lakoff (1972) and then developed further in the area of pragmatics over the last two decades. With a main underlying pedagogical purpose, I finally provide a taxonomy of the major lexicogrammatical forms and strategies that writers may use to hedge in scientific texts.

2. *Various approaches to the concept of hedge*

The use of hedge as a linguistic term goes back at least to the early 1970s when Lakoff (1972) published his article "Hedges: A Study in Meaning Criteria and the Logic of Fuzzy Concepts". As Markkanen & Schröder (1997) point out, Lakoff was not interested in the communicative value of the use of hedges but was concerned with the logical properties of words and phrases like *rather*, *largely*, *sort of*, *very*, in their ability "to make things fuzzier or less fuzzy" (Lakoff, 1972: 195). According to Lakoff, hedges such as *sort of* typically modify predicates with regard to their being assigned to a category. This primary interest is not the qualitative aspect according to truth but grading. It is via vagueness and fuzziness that Lakoff arrived at the concept of hedges. Lewin (1998), however, argues that there are some problems with Lakoff's approach, as his definition of hedges "presupposes a set of factive or true utterances and a set of discrete, lexico-grammatical devices which can dilute the truth value of those utterances, or make them fuzzy" (p. 90). But, as Lewin continues arguing, "natural language concepts have vague boundaries and fuzzy edges and consequently, natural language sentences will very often be neither true nor false, but rather true to a certain extent and false to a certain extent" (Lewin, 1998: 90).

Since the early 1970's the concept of hedge has moved a long way from its origins, particularly since pragmatists and discourse analysts have adopted it. Although Lakoff's original use of the term was only for expressions that modify the category membership of a predicate or noun phrase, the idea of hedged performatives became then one way of widening the concept of hedges (Markkanen & Schröder, 1997)

In addition to the idea of hedged performatives, the concept of hedge was also widened in another way when hedges were taken to be modifiers of the speaker's commitment to the truth-value of a whole proposition, not just the category membership of a part of it. In other words, hedges (e.g. *perhaps*, *seem*, *might*, to a certain extent) were seen as modifying the truth-value of the whole proposition, not as making individual elements inside it more imprecise.

This widening of the concept of hedge to contain the modification of commitment to the truth of propositions has led some researchers to think it necessary to distinguish between two types of hedges. Prince et al. (1982), in their work on hedging in Physics discourse, start from Lakoff's definition of hedges as devices that make things fuzzy, but add that there are at least two kinds of fuzziness. One is fuzziness within the propositional content, the other fuzziness "in the relationship between the propositional content and the speaker, that is

the speaker's commitment to the truth of the proposition conveyed" (Prince et al., 1982: 85). Accordingly, they propose two types of hedges: Those that affect the truth-conditions of propositions, which the authors call approximators (e.g. His feet were sort of blue), and shields, which do not affect the truth-conditions but reflect the degree of the speaker's commitment to the truth value of the whole proposition (e.g. I think his feet were blue).

A similar distinction is drawn by Hübler (1983), who distinguishes between what he calls understatements and hedges, although both are devices used for expressing 'indetermination'. For example, a sentence like *It's a bit cold in here* is indeterminate. However, according to Hübler, there are two kinds of indetermination: phrastic and neustic. Phrastic indetermination concerns the propositional content of a sentence, whereas the neustic type is connected to the claim to validity of the proposition a speaker makes. Thus, Hübler distinguishes between understatements, i.e. expressions of phrastic indetermination, and hedges, i.e. expressions of neustic indetermination. Therefore, a sentence like *It's a bit cold in here* contains an understatement, while *It's cold in Alaska, I suppose* contains a hedge. In this way, Hübler's division greatly resembles that by Prince et al., whose approximators correspond to Hübler's understatements and shields to his hedges.

Since the hedging phenomena have been examined as a pragmatic aspect of communication, divergent views can be found in the literature as to which lexical and/or syntactic hedging devices should be assigned to individual pragmatic strategies (politeness, indirectness, mitigation, vagueness, understatement) which focus mainly on social interaction.

Interesting research activities have emerged from work in the field of politeness strategies. The model proposed by Brown & Levinson (1987) considers politeness as an important motivating factor for the use of hedges in spoken discourse. In their view, hedges are mainly used as a strategy or expression of negative politeness with the function of avoiding disagreement. These authors argue that there are a series of lexical and syntactic devices which modify the illocutionary force of utterances that may otherwise seem too forceful and which, in most cases, indicate politeness such as adverbial-clause hedges (e.g. *in fact*, *in a sense*), 'If' clauses (e.g. *if you can*, *if you want*), quality hedges which may suggest that the speaker is not taking full responsibility for the truth of his/her utterance (e.g. *I think/ believe /assume*), modal auxiliaries (e.g. *may*, *could*, *can*), quality-emphasising adverbs (e.g. *truthfully*, *honestly*) or quantity hedges (e.g. *roughly*, *approximately*). These linguistic devices have a hedging function as they are used to mitigate the strength of claims, statements and utterances while tending to face-save to achieve broader acceptance from the listener/reader.

Although Brown & Levinson (1987) claim that it is possible to distinguish between acts that primarily threaten the hearer's face and those that threaten the speaker's own face, they admit that the latter acts are also potential threats to the hearer. Thus, in their discussion of politeness and the ways to express it, it is the hearer's face-wants that get emphasised.

However, Markkanen & Schröder (1997) have pointed out the possibility of emphasising the importance of hedges for the speaker's own face. They note that the use of hedges may be motivated, for example, by the fear of being proved wrong later on. Being imprecise or mitigating one's commitment to the truth value of a proposition or a claim makes it possible to say, if proved wrong, that the claim was only tentative or an approximation. This explanation is supported by Hübler (1983), as he views that the reason for using hedges is to make sentences more acceptable to the hearer and therefore increase their chances of ratification. According to Hübler, the function of hedges is to reduce the risk of negation. He claims that, in all communication, while showing deference to the addressee, the speaker or writer also tries to protect himself/herself from potential anger, contempt or other humiliation on the part of the addressee. In this way, in some situations, the desire to protect oneself from the potential denial of one's claims may be greater than the desire to show deference to the addressee.

There have also been many contributions to the research on modality. Although the hedging capacity of modal particles as illocutionary modifiers has been recognised, there has been controversy about considering these lexical items as examples of hedges (see, for example, Clemen, 1997). The demarcation of modal particles has proved difficult because the area they cover is vast. Furthermore, they have different functions and vary according to context. According to Palmer (1986), the notion of modality is vague and leaves open a number of possible definitions. Most linguistic approaches to modality differentiate two major subtypes: deontic modality and epistemic modality; the latter is the subtype of modality which is associated with hedging. Epistemic modality, as defined by Lyons (1977: 797), refers to "any utterance in which the speaker explicitly qualifies his commitment to the truth of the proposition expressed by the sentence he utters". As Stubbs (1986) remarks, we can see a certain degree of affinity in Lyon's definition to many of the conceptions of hedge, but it is not possible to include in Lyon's conception of epistemic modality hedges as defined by Lakoff and others who see them as modifying parts of the proposition. However, even these hedges can be included within the realm of epistemic modality if we consider that it is possible to indicate degrees of commitment not only to propositions but also to illocutionary forces and to

individual lexical items. The concepts of modality and hedge thus overlap to a lesser or greater extent depending on their respective definitions. It seems possible to see the relationship between epistemic modality and hedges in two ways: either modality is the wider concept and includes hedges or it is the other way around; hedging is the wider term and epistemic modality a part of it.

Another concept that cuts across the territory of hedges — and epistemic modality — is evidentiality, again depending on how broadly hedge is understood. Chafe (1986: 271) defines evidentiality as “any linguistic expression of attitudes toward knowledge”. According to Chafe, knowledge has various modes: belief, induction, hearsay and deduction, each of which is based on a different source. Most of the examples that Chafe gives as realizations of these different modes are expressions that have also been included in hedges by other linguists (e.g. adjectives of modality, verbs of cognition, modal auxiliaries, modal adverbs). Chafe himself uses the term hedge to refer to “markers of low codability” and for expressions that denote that “the match between a piece of knowledge and a category may be less than perfect” (Chafe, 1986: 270), such as *sort of* and *kind of*, i.e. expressions that indicate vagueness, therefore agreeing with Lakoff’s original idea of hedges.

Vagueness is another concept close to hedging as it refers, among other things, to the use of expressions like *about*, *sort of*, i.e. expressions that denote the impreciseness of quantity, quality or identity, which is very much like Lakoff’s fuzziness (see, for example, Channell, 1990). In scientific writing vagueness has been often seen as a motivating factor for the use of hedges. In order to avoid making categorical assertions the writer will make vague statements if, for example, exact data is missing or if precise information is irrelevant in preliminary results. Hedges thus protect writers from making false statements. This role of hedging as an indicator of vagueness and imprecision has been discussed in the framework of LSP texts by, for example, Salager-Meyer (1994), who claims that the association of hedges with evasiveness does not necessarily show confusion or vagueness. In this sense, hedges can be considered as “ways of being more precise in reporting results” (Salager-Meyer, 1994: 151). This author also agrees that academics may choose to remain vague in their claims to show their readers that they do not have the final word on the subject, revealing that typical features of science are “uncertainty, skepticism and doubt”. Taking this into consideration, hedges, because of their mitigating and evasive effect, can increase the credibility of a statement in academic texts.

While early research on hedging has concentrated primarily on the spoken language, from the end of the 1980s onwards, attention has shifted more to the written discourse. Over the last decade, there has been an increasing interest in

cross-cultural studies, which have analysed the phenomenon of hedging mainly in academic texts. For instance, Ventola & Mauranen (1996) found that Finns writing in English had less variation in expressions of epistemic modality than did native speakers of English. Clyne's (1991) interlanguage study of German scholarly writing in English revealed that German writers hedge more both in their native language and in English than do native speakers of English. Following the work by Clyne (1991), Kreutz & Harres (1997) analysed the distribution and function of hedging in English and German academic writing, and found that while hedges serve to downtone and mitigate arguments in English texts, their main function in German writing may be one of "assertion and authority". Vassileva (1997) examined hedging in English and Bulgarian research articles. Her results revealed differences in the distribution of hedges throughout the research articles and in the means of realising hedging in both languages. The results of all these studies point to the fact that the pragmatics of hedging is culturally determined.

In sum, since Lakoff's (1972) first approximation to the study of hedging, due to the growing influence of pragmatic research, the concept of hedge was broadened and varying degrees of understanding the concept emerged from different domains of knowledge, based on the pragmatic aspect of communication (politeness, mitigation, vagueness) which focus mainly on social interaction. These various approaches have pointed to a great variety of motives in applying hedging devices, for instance, face-saving strategies intended to obtain speaker's or writer's acceptance, mitigation and modification of utterances, avoidance of commitment and intentional vagueness.

Through this extension, the concept of hedge has overlapped with several other concepts, but it also shows the various perspectives from which hedges and hedging can be considered. What seems to be clear is that the varying categorizations at the present stage, enriching as they are, present considerable problems when it comes to the analysis of corpora academic texts.

3. Hedging in scientific discourse

The fact that hedges are actually used in scientific/academic discourse, which is supposed to be, above all, rational and neutral, indicates that scientific texts are not only a collection of conventions that can be explained in terms of the norms of scientific culture. Scientific texts have been shown not to be only content-oriented and informative but also as seeking to convince and influence their audience and also move the reader emotionally (cf. Markkanen & Schröder, 1997). An increasing number of research studies on a variety of

disciplines has been able to demonstrate just how academic discourse is both socially-situated and structured to accomplish rhetorical objectives (e.g. Hyland, 1994, 1996, 1998; Salager-Meyer, 1994, 1998; Skelton, 1997; Lewin, 1998).

In academic writing, politeness has been seen as the main motivating factor for hedging, because as Myers (1989: 5) states “scientific discourse consists of interactions among scientists in which the maintenance of face is crucial”. Myers (1989) applied Brown & Levinson’s (1987) model to a corpus of biology research articles and found that some of the politeness strategies that are used in spoken interaction can be extended to scientific texts. He argues that in scientific discourse the making of claims, and even the mere act of presenting one’s findings, threatens the negative face of other researchers, and thus the use of politeness devices (e.g. hedges) is a frequent strategy used by writers to mitigate the Face Threatening Acts (FTAs) which are involved in the social interactions between writers and readers in publishing an article.

The minimization of FTAs in order to avoid potential criticism has been seen as the main pragmatic function of hedges in academic texts. Hedging is also considered an important rhetorical device which helps writers demonstrate that they are familiarised with the discourse conventions of particular academic disciplines, and thus gain reader acceptance of claims (e.g. Hyland, 1996, 1998). Hedges have also been viewed as strategies which allow writers to express propositions with greater precision, thus acknowledging the impossibility of exactly quantifying the world without any exactitude (see Salager-Meyer, 1994, 1998).

In their studies of academic writing, Markkanen & Schröder (1997) see hedges as modifiers of the writer’s responsibility for the truth value of the propositions expressed or as modifiers of the weightiness of the information given, or the attitude of the writer to the information. According to these authors, hedges can even be used to hide the writer’s attitude, suggesting that “hedges offer a possibility for textual manipulation in the sense that the reader is left in the dark as to who is responsible for the truth value of what is being expressed” (Markkanen & Schröder, 1997: 6). They continue remarking that when this kind of purely functional starting point is adopted, there is no limit to the linguistic expressions that can be categorised as hedges (e.g. the use of certain pronouns and avoidance of others, the use of impersonal expressions, the passive and other agentless constructions, in additions to the use of modal verbs, adverbs and particles, which are usually included in hedges). In fact, the difficulty with these functional definitions is that almost any linguistic item or expression can be interpreted as a hedge. Furthermore, one can assume that no linguistic items are inherently “hedgy” but can acquire this quality depending on

the communicative context in which they occur, which means that no clear-cut lists of hedging expressions are possible.

Lewin (1998) has pointed to the possibility that specific types of hedges might be associated with particular genres. This has been shown, for example, by Salager-Meyer (1994), who analysed the frequency of occurrence and distribution of hedging devices across various genres (research papers, case reports, reviews and editorials) in the field of medicine. Her findings showed that editorials and reviews are more heavily-hedged than research papers and case reports, that shields are the most frequent strategies in editorials and reviews, whereas the passive voice is the prevalent hedging strategy in research papers and case reports.

Moreover, as literature has revealed disciplinary variation in academic writing, one could assume that in academic genres the use of hedges varies according to field, i.e. that there are scientific disciplines in which there is variation in terms of distribution and types of hedges. For example, Spillner (1983, cited in Markkanen & Schröder, 1997: 12) observes, in texts in which the use of experimental data and logical deduction are not so important, the style of writing becomes an essential element in achieving credibility. However, recent findings (see, for example, Hyland, 1998) suggest that the differences in the use of hedges between texts from different fields are no so great as could be assumed, but rather that hedging is not an inherent characteristic of a text but a product of writer-reader relations.

4. Towards a taxonomy of hedging devices.

Hedging in academic writing can be expressed by means of various lexical, grammatical and syntactic devices depending on how broadly we understand the term. There are some functionally-based reductionist approaches, such as Crompton's (1997, 1998) that consider hedge as a concept reserved to expressions of epistemic modality with the only function of avoiding commitment. On the other hand, most of the researchers on the notion of hedging are unwilling to see form and function as inextricably linked, but rather that forms are read as hedges in certain contexts but not in others. One such researcher is Salager-Meyer (1994, 1998, 2000), who argues that hedges are the product of a mental attitude and therefore favours an eclectic approach which includes various manifestations of the concept. Moreover, Salager-Meyer (1994) argues that many studies of hedging have not placed enough emphasis on the fact that hedges are primarily the product of a mental attitude and have looked for prototypical linguistic forms for their realization without considering that

these linguistic forms may not always have a hedging function. This author also suggests that “the only way to identify hedging devices is by means of introspection and contextual analysis with the help and advice of an expert in the discipline analyzed” (Salager-Meyer, 1998: 298).

Considering that hedging is the product of a mental attitude (as posited by Salager-Meyer, 1994; 1998; 2000), and therefore a subjective phenomenon which functions in a particular context, it is not surprising that at the present stage, as Clemen (1997: 237) notes “researchers cannot agree on which lexical items, phrases or syntactic structures should be classed as hedges and which attributes a word or phrase should contain to function as a hedge in a given context”. Clemen (1997: 243) himself provides a list of the most frequent hedging devices, such as epistemic qualifiers, certain personal pronouns, indirect constructions, parenthetical constructions, subjunctive / conditional, concessive conjuncts, negation. Hyland (1994: 240), for example, includes “If”-clauses, questions and time references. The use of passive, agentless and impersonal constructions has also been classified as a hedging device by many authors (e.g. Markkanen & Schröder, 1997; Salager-Meyer, 1998; Clemen, 1997).

In addition to lexico-syntactic items, other authors such as Hyland (1996, 1998) have pointed to the existence of other discourse-based strategies that weaken scientific statements by limiting the confidence invested in the claims made for the research. Hyland refers to those cases in which the writers draw attention to the limitations of the model, theory or method used, an effect which is often achieved by “commenting on the difficulties encountered”, the “shortcomings of findings” or “the possibility of alternative explanations”.

Along the same lines, Lewin (1998) claims that in the discourse stratum the realizations of certain optional genre structures (moves/steps) can be considered as hedges since their function is to protect the author from possible attack (e.g. “establishing the gap the present research is meant to fill” or “offering implications for future research”).

5. A proposal for a classification of hedging devices

The taxonomy of hedging devices, which I propose in this paper, draws on the different classifications that can be found in the literature. This taxonomy is also the result of the analysis of an extensive corpus of research articles from various disciplines. In terms of assigning a specific function to a hedge, I should make clear that it is of primary importance to consider the socio-pragmatic context in which hedges occur, as it appears that it is virtually impossible to attribute a function to a hedge without considering both the linguistic and

situational context. The analysis of the texts revealed that the linguistic devices which writers most frequently use in English at a lexico-grammatical and syntactic level for the explicit function of hedges can be described as realising the following basic strategies:

5.1. Strategy of indetermination, by giving a proposition a colouring of lesser semantic, qualitative and quantitative explicitness as well as of uncertainty, vagueness and fuzziness. This strategy may comprise:

5.1.1. Epistemic modality, which can be realised by means of

- Modal auxiliary verbs expressing possibility, such as *may, might, can*.
- Semi-auxiliaries like *to seem, to appear*.
- Epistemic lexical verbs like *to suggest, to speculate, to assume*, that is, verbs which relate to the probability of a proposition or hypothesis being true.
- Verbs of cognition like *to believe, to think*.
- Modal adverbs (*perhaps, possibly, probably*).
- Modal nouns (*possibility, assumption, suggestion*).
- Modal adjectives (*possible, probable, likely*).

The following example illustrates this strategy in academic texts:

Their results would be unusual since the pathway has never been observed from five-membered heterocycles having two heteroatoms in alternate positions (Anantanarayan & Hart 1991, Chemistry)

5.1.2. Approximators of quantity, frequency, degree and time such as *generally, approximately, most, relatively, frequently*, as proposed by Salager-Meyer (1994, 1998), which indicate an unwillingness to make precise and complete commitment to the proposition expressed:

Information modeling techniques do not usually provide good mechanisms to support multiple classification (Sih & lee 1993, Computer Science)

5.2. Strategy of camouflage hedging (as proposed by Namsaraev, 1997). The devices used under this strategy include:

5.2.1. Metalinguistic operators, that is, extra-clausal disjuncts such as *really, actually, in fact, it is obvious that..., strictly speaking, generally speaking, to some extent*, which indicate the standpoint from which the writers might evaluate the

truth of a claim. In the view of many researchers these items may not be considered as hedges, as long as they are elements which can act to intensify a proposition. But, as Namsaraev (1997) remarks, all these items are hedges when interpreted pragmatically as a strategy provoking a displacement of the focus of a reader's attention/negative reaction from the proposition to these metalinguistic operators. Namsaraev argues that the possible negative reaction of a reader/hearer to the statement "a penguin is a bird" will mostly be: "No, it is not true. A penguin is not a bird because it does not fly". However, he remarks that when the speaker/writer disguises his/her utterance and says: "It is clear/obvious, that a penguin is a bird" the reader's/hearer's reaction might be different: "No, it is not clear. It may be that a penguin is a bird, but it is by no means obvious" (Namsaraev, 1997: 69). These expressions, thus, appeal to the reader, presupposing agreement with the proposition made by the writer. They also function to provide argumentative support for the claims expressed, as in the following example:

The cognitive-pragmatic approach used in this paper refutes to some extent both explanations and claims that relationships between linguistic form and function reflect human conceptual structure (Kecskés 2000, Linguistics)

5.3. Strategy of subjectivisation. This includes:

5.3.1. The use of first personal pronouns (I/we) followed by verbs of cognition (think, believe) or performative verbs (suppose, suggest), that can be interpreted as the writers signalling that what they say is just their personal/subjective opinion. In this way, the writers show respect for the reader's alternative opinion and invite the reader to become involved in the communicative situation:

We believe it inappropriate for children as they do not include intensive sustained nutritional intervention (Anderson et al 1995, Medicine)

In this subcategory, I have also included those expressions constituted by other first person pronouns (i.e. our, my), that is, linguistic devices which express the author's personal doubt and direct involvement such as to our knowledge, in our view, in my experience (as proposed by Salager-Meyer, 1994).

Whale-watching is not simply about getting close to whales, in our view, many other variables are important. (Orams 2000, Tourism)

5.3.2. Quality-emphasising adjectival and adverbial expressions such as extremely interesting, particularly important, that is, expressions which are

equivalent to what Salager-Meyer (1994, 1998) terms as “emotionally-charged intensifiers” which, according to this author, are used to convince the readers of the importance / truth of the propositions expressed, by revealing the writer’s emotional state. At the same time, these expressions can be considered as a positive politeness strategy (Myers, 1989) as they show solidarity with the discourse community by exhibiting responses that assume shared knowledge and desires.

These results are of particular importance, since investigations of differences between leucotomized patients and normals have failed to show statistically significant differences on this measure (Dunbar 1993, Psychology)

5.4. Strategy of depersonalisation. This refers to those cases in which the writers diminish their presence in the texts by using various impersonal, agentless and passive constructions in order to relieve themselves of responsibility for the truth of the propositions expressed. This strategy is syntactically realised by means of:

5.4.1. Agentless passive and impersonal constructions. For example, when the authors use constructions such as *In this study the phenomenon X was examined* instead of *In this study I/we examined the phenomenon X*, or *The data was analysed* instead of *I/We analysed the data*. Other examples are constructions such as *an attempt was made to see...*, *it seems/appears that...*

5.4.2. Impersonal active constructions in which the personal subject is replaced by some non-human entity such as *findings, results, data*, as in the following examples: *The findings suggest/ reveal...*, *these data indicate...*

6. Concluding remarks

As this paper has attempted to show, hedges constitute an important interactive strategy in the communicative situation of academic writing. Hedges are of particular significance when the writers want to remain uncommitted to some extent in order to avoid the FTAs involved in the making of claims. It has also been argued that most writers of research articles in English for international publications use a great number of hedging devices as an important rhetorical tool in their attempt to gain reader acceptance of knowledge claims and to avoid potential criticism.

Due to the importance that modulating claims has for the international scientific community, non-native English writers, especially novice academics

who wish to obtain international recognition through their publications in English-language journals, must be aware of the relevant function of hedging in the production of research texts. In this regard, the taxonomy of hedging devices which I propose in this paper may have useful pedagogical implications for those non-native English speaking postgraduate students, who have to read scholarly papers written in English and eventually write articles in this language, especially if we consider that the phenomenon of hedging in academic texts may vary cross-culturally. This taxonomy could be used as a tool to help students identify the purposes, distribution and major forms of hedging devices in academic texts. As Hyland (1994: 244) underlines, a full understanding of devices such as hedges is "critical to academic success and eventual membership in a professional discourse community".

As the growing literature in both sociology and applied linguistics (e.g. Myers, 1989; Hyland, 1994, 1996, 1998) contends, the rhetorical features of academic texts can only be fully explained when considered as the actions of socially situated writers. In this regard, it is important to consider that hedging is an interpersonal rhetorical strategy which has to be analysed in a particular social context. It is the situation in which hedging occurs which gives it its meaning. Thus, although hedges have lexical and syntactic forms, and individual factors doubtless contribute to the choices made by particular writers when producing research papers, their pragmatic interpretation is primarily based on the understanding of the interactional and social aspects of scientific communities.

References

- Anantanaraya, A & H. Har. (1991) "Reduction of DMAD-anthracene adducts. Synthesis and conformations of substituted cyclodecadienes". *Journal of Organic Chemistry* 56:991-996.
- Andersson, E. et al (1995) "Interchangeability of conjugated haemophilus influenzae type b vaccines in infants" *Journal of the American Medical Association* 282/11:1041—1046
- Brown, P. & Levinson, S. 1987) *Politeness: Some Universals in Language Usage*. Cambridge: Cambridge University Press.
- Burgess, S. & A. Fagan (2002) "(Kid) gloves on or off?: Academic conflict in research articles across the disciplines". *Revista Canaria de Estudios Ingleses* 44: 79-96.
- Chafe, W. (1986) "Evidentiality in English conversation and academic writing", in Chafe, W. & J. Nichols (eds.) *Evidentiality: The Linguistic Coding of Epistemology*. Norwood, N. J.: Ablex, 261-272.

Channell, J. (1990) "Precise and vague quantities in writing on economics", in Nash, W. (ed.) *The Writing Scholar: Studies in Academic Discourse*. Newbury Park: Sage, 95-117.

Clemen, G. (1997) "The concept of hedging: origins, approaches and definitions", in Markkanen, R. & H. Schröder (eds.) *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text*. Berlin: Walter de Gruyter, 235-248.

Clyne, M. (1991) "The sociocultural dimension: the dilemma of the German-speaking scholar", in Schröder, H. (ed.) *Subject-oriented Texts*. Berlin: Walter de Gruyter, 49-68.

Crompton, P. (1997) "Hedging in academic writing: some theoretical aspects". *English for Specific Purposes* 16: 271-289.

Crompton, P. 1998. "Identifying hedges: Definition of divination?". *English for Specific Purposes* 17: 303-313.

Dunbar, R (1993) "Coevolution of neocortical size, group size and language in humans". *Behavioral and Brain Sciences* 16:681-735.

Hübler, A. 1983. *Understatements and Hedges in English*. Amsterdam: John Benjamins.

Hyland, K. 1994. "Hedging in academic textbooks and EAP". *English for Specific Purposes* 13: 239-256.

Hyland, K. 1996. "Talking to the academy: forms of hedging in science research articles". *Written Communication* 13: 251-281

Hyland, K. 1998. *Hedging in scientific research articles*. Amsterdam: John Benjamins.

Kecskés, I (2000) "A cognitive-pragmatic approach to situation-bound utterances". *Journal of Pragmatics* 32:605-625.

Kreutz, H. & A. Harres (1997). "Some observations on the distribution and function of hedging in German and English academic writing", in Duszak, A. (ed.) *Culture and Styles in Academic Discourse*. Mouton de Gruyter: Berlin, 181-202.

Lakoff, G. (1972) "Hedges: a study in meaning criteria and the logic of fuzzy concepts". *Journal of Philosophical Logic* 2: 458-508.

Lewin, B. (1998). "Hedging: form and function in scientific research texts", in Fortanet, I., Posteguillo, S., Palmer, J. C. & J. F., Coll (eds.) *Genre Studies in English for Academic Purposes*. Vol. 9 Filología. Universitat Jaume I: Col·lecció Summa, 89-108.

Lyons, J. (1977). *Semantics (Vol 1-2)*. Cambridge: Cambridge University Press.

Markannen, R. & H. Schröder 1997. "Hedging: a challenge for pragmatics and discourse analysis", in Markkanen, R. & H. Schröder (eds.) *Hedging and*

Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text. Berlin: Walter de Gruyter, 3-18.

Myers, G. (1989) "The pragmatic of politeness in scientific articles". *Applied Linguistics* 10:1-35.

Namsaraev, V. (1997) "Hedging in Russian academic writing in sociological texts", in Markkanen, R. & H. Schröder (eds.) *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text.* Berlin: Walter de Gruyter, 64-81.

Palmer, F.R. (1986) *Mood and Modality.* Cambridge: Cambridge University Press.

Prince, E. F., Frader, J. & C. Bosk (1982) "On hedging in physician-physician discourse", in Di Pietro, R. J. (ed.) *Linguistics and the Profession.* Norwood, N. J.: Ablex, 83-97.

Salager-Meyer, F. (1994). "Hedges and textual communicative function in medical English written discourse". *English for Specific Purposes* 13: 149-170.

Salager-Meyer, F. (1998) "Language is not a physical object". *English for Specific Purposes* 17: 295-303.

Salager-Meyer, F. 2000. "Procrustes' recipe: hedging and positivism". *English for Specific Purposes* 19: 175-187.

Sih, G. and E. Lee (1993) "Declustering: A new multiprocessor scheduling technique" *IEEE Transactions on Parallel and distributed Systems* 4/6:625-637

Skelton, J. (1997) "How to tell the truth in The British Medical Journal: Patterns of judgement in the 19th and 20th centuries", in Markkanen, R. & H. Schröder (eds.) *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon in Academic Text.* Berlin: Walter de Gruyter, 42-63.

Stubbs, M. (1986) "A matter of prolonged field work: notes toward a modal grammar of English". *Applied Linguistics* 7: 1-25.

Vassileva, I. (1997). "Hedging in English and Bulgarian academic writing", in Duszak, A. (ed.) *Culture and Styles in Academic Discourse.* Mouton de Gruyter: Berlin, 141-157.

Ventola, E. & A. Mauranen (eds.) (1996) *Academic Writing: Intercultural and Textual Issues.* Amsterdam: John Benjamins.

Wales, K. (ed.) (1989). *A Dictionary of Stylistics.* New York: Longman.