

ÇUKUROVA UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
DEPARTMENT OF ENGLISH LANGUAGE TEACHING

**THE USE OF HEDGES IN RESEARCH ARTICLES BY TURKISH
INTERLANGUAGE SPEAKERS OF ENGLISH AND NATIVE ENGLISH
SPEAKERS IN THE FIELD OF SOCIAL SCIENCES**

Zekeriya HAMAMCI

MASTER OF ARTS

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Supervisor: Assistant Professor Doctor Abdurrahman KİLİMCİ

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Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Müdürlüğü,

We certify that this thesis is satisfactory for the award of the degree of M.A.

Supervisor: Assist. Prof. Dr. Abdurrahman KİLİMCİ

Member of Examining Committee: Assoc. Prof. Dr. Hatice SOFU

Member of Examining Committee: Assist. Prof. Dr. Ergun SERİNDAG

I Certify that this thesis conforms to the formal standards of the Institute of Social Sciences.

Prof. Dr. Nihat KÜÇÜKSAVAŞ
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ÖZET

SOSYAL BİLİMLER ALANINDA YABANCI DİLİ İNGİLİZCE OLAN TÜRK VE ANA DİLİ İNGİLİZCE OLAN YABANCI AKADEMİSYENLER TARAFINDAN YAZILMIŞ ARAŞTIRMA MAKALELERİNDE BELİRSİZLİK SÖZCÜKLERİNİN KULLANIMI

Zekeriya HAMAMCI

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Belirsizlik sözcükleri ile ilgili çalışmalar genellikle konuşma etkileşimi veya genel dil kullanımı analizleri doğrultusunda yapılmıştır. Ne var ki, 1980’lerden günümüze, yazılı alanda ve özellikle de akademik ve bilimsel dil kullanımlarında belirsizlik sözcüklerinin rolü araştırmacılar için önemli bir ilgi kaynağı olmuştur.

Bu çalışma, sosyal bilimler alanında yabancı dili İngilizce olan Türk ve ana dili İngilizce olan yabancı akademisyenler tarafından yazılmış araştırma makalelerinden elde edilen verilerde belirsizlik sözcüklerinin kullanımının farklı örneklerini incelemektedir. İncelenen verilerde, belirsizlik sözcüklerinin görülme sıklıkları ve görevleri bakımından farklılık olup olmadığı incelenmektedir. Çalışmanın anahtar soruları şunlardır:

1. Anadili İngilizce olan ve olmayan akademisyenler, araştırma makalelerinde belirsizlik sözcüklerini ifade eden aynı dilbilimsel yapıları ne derece kullanmaktadır?
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Bu alıřmada yapılan analiz Sosyal Bilimler alanında yabancı dili İngilizce olan Türk ve ana dili İngilizce olan yabancı akademisyenler tarafından yazılmış 90 adet araştırma makalesinden yararlanılarak yapılmıştır.

Anahtar kelimeler: Belirsizlik sözcükleri, Dilbilimsel farklılık, Belirsizlik ifade eden kipler

ABSTRACT**THE USE OF HEDGES IN RESEARCH ARTICLES BY TURKISH
INTERLANGUAGE SPEAKERS OF ENGLISH AND NATIVE ENGLISH
SPEAKERS IN THE FIELD OF SOCIAL SCIENCES****Zekeriya HAMAMCI****Master Thesis, English Language Teaching Department****Advisor: Asst. Prof. Dr. Abdurrahman KİLİMCİ****September, 2007, 80 pages**

Studies relating to hedging phenomena have often been directed at the analysis of spoken interaction or at language use in general. However, especially from the mid-1980s onwards, the role of hedges in written discourse and particularly in academically and scientifically oriented language use has become a point of considerable interest for researchers.

The study examines the instances of various kinds of hedges in the corpora compiled from research articles by native and non-native authors in the field of social sciences and to determine whether or not variation exists between the two corpora under investigation in terms of occurrence and functions of hedges. The questions of the research are:

1. To what extent do native and nonnative speakers of English employ the same linguistic means of expressing hedging?
2. Do native and nonnative speakers of English show variation as regards the frequency of the use of epistemic modality markers as hedging devices?
3. What functional differences in the use of hedges do both corpora display?

The study was conducted with 90 research articles written by Turkish interlanguage speaker of English and native speakers in the field of social sciences. The corpora were analyzed through Word Smith tool.

Keywords: Hedges, Linguistic Variation, Epistemic Modality Markers

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LIST OF ABBREVIATIONS

ESP: English for Specific Purposes

FTA: Face Threatening Acts

NNS: Non-native Speakers

NS: Native Speakers

RA: Research Article

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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Work relating to hedging phenomena has often been directed at the analysis of spoken interaction or at language use in general. However, especially from the mid-1980s onwards, the role of hedges in written discourse and particularly in academically and scientifically oriented language use has become a point of considerable interest for researchers. Thus, a number of studies have been published relating to hedging phenomena in disciplinary discourse. Generally speaking, scholars appear to put forth, the (explicit or implicit) presumption that hedging is an important strategy in communication between experts. Hedging has most often received attention in scientifically oriented language use, probably due to the central position of RAs within the academic world. The widely acknowledged importance of the research article as a means of communication between scientists is also the reason for choosing this type of text as one object of study here.

As concerns the incidence of hedges in scientifically oriented texts other than highest-level expert communication like research articles, relatively little information based on authentic data has been published. It has been assumed—sometimes without clear empirical justification—that in scientific language use, hedges are first and foremost peculiar to discourse between highly trained experts, whereas in for instance scientific popularizations hedges would stand out as too uncertain (Fahnestock 1986: 275). This assumption is visible in a fair number of studies (e.g. Myers 1989, 1992, 1994). However, certain other scholars (e.g. Varantola 1987, Crystal 1988, Crismore 1989, Grabe and Kaplan 1997, Varttala 1999) have instead put forth the view that hedging is in fact quite common in scientific discourse accommodated for the wider public, this idea in my opinion being based on analyses of actual data more often than the former view. Hence, it appears that scholars are not in agreement when it comes to the role of hedging in science popularizations—while some presume that hedges do not occur very often in for instance popularized articles dealing with scientific issues, some do in fact point out that hedging may be common on such occasions. The latter may very well be true in at least some

disciplines, but potential disciplinary variation in hedging should also be taken into account in commenting on popular scientific discourse, the present state of research being based on material from a relatively limited number of subject areas. The basic presumption that hedging is common in scientific peer communication of the highest level of technicality, especially in research articles, has been rather well documented in literature.

1.2 The Aim of the Study

The primary objective of the present thesis is to explore the use of hedges in research articles by Turkish inter-language speakers of English and native English speakers in the field of social sciences. The motive behind the present contrastive study is to find out to what extent the academic discourse employed in native and non-native research articles display variation in terms of the occurrence, type and functions of hedges.

The overall motivation for addressing these issues has to do with both the research and teaching of special-subject discourse. By considering the usage of the same linguistic means of expressing hedging and variation related to the frequency of the use of epistemic modality markers as hedging devices, the aim here is to determine whether or not we can put forth generalizations regarding hedging without closer considerations of the various subject areas. This question is tied in with the broader theoretical issues involved in analyzing and teaching special-subject discourse.

1.3 Statement of the Problem

Hedging is a basic feature in academic discourse (Rounds 1982) that enables academic writers to show their certainty and doubt towards their statements, to show the amount of confidence they put on their claim, and to start a dialog with their readers. Through using hedges, writers leave some room for their readers to judge the truth value of the assertion. Hedging expressions can also be used in describing methods and results, discussing findings, and drawing conclusions from the evidence.

Varttala (1999) has emphasized the functions of hedging in research articles as the indicator of textual precision and interpersonal relationship. While the literature emphasizes the importance of hedging, Hyland (1998) has stressed that we know little about its use, frequency, and distribution in different disciplines or genres. The neglect of the study on

hedging is reported by Crystal (1995: 120) who attempted to shed light on the areas in English language studies which have not received enough attention. There have not been many cross-disciplinary studies on hedging in research articles and across RA rhetorical sections. The limited number of studies which are conducted in this area have shown that there are some variations in the use of hedges across disciplines (Varttala 2001) and RA rhetorical sections (Salager-Meyer 1994, Yang 2003). The three disciplines of this study are selected to address the scarcity of studies on hedges in these areas. This research examines the forms and functions of hedging in academic research articles by comparing frequency of hedging in the field of social sciences and in two rhetorical sections of RAs, namely Introduction and Discussion/Conclusion sections.

First, this study is concerned with to find out to what extent native and non-native speakers of English employ the same linguistic means of expressing hedging. The first question to be dealt with here is to find out whether or not there are similarities or differences in the use of the same linguistic means of expressing hedging. Second, my thesis focuses on if native and non-native speakers of English show variation as regards the frequency of the use of epistemic modality markers as hedging devices. In what follows, I will centre on what functional differences in the uses of hedges both corpora display.

1.4 Research Questions

This study aims to seek answers to the following research questions:

1. To what extent do native and nonnative speakers of English employ the same linguistic means of expressing hedging?
2. Do native and nonnative speakers of English show variation as regards the frequency of the use of epistemic modality markers as hedging devices?
3. What functional differences in the use of hedges do both corpora display?

1.5 Limitations

This study is only limited to researchers who are Turkish interlanguage speakers of English and native speakers in the field of social sciences. Since the research articles retrieved from the libraries contain surnames and the capital letter of the researchers' names, the data could not be analyzed in terms of gender difference. Hedging has characteristically been linked to epistemic modality, because the meaning of both epistemically modal devices and hedges is closely related to the sender's degree of confidence regarding what is being said. Thus, in the data analyzed, only nouns, modals, full verbs, adjectives and adverbs are considered as indicators of hedging; relying on the studies of Hyland (1994) and Varttala (2001). Choices of voice and tense as strategies pertaining to hedging are not included in the analysis of the data, not only because every sentence within the data chosen for scrutiny here involves choices of voice and tense but also because of the difficulty of determining where such choices are possibly intended to produce a hedging effect.

1.6 Operational Definitions

1. Hedges: words whose meaning implicitly involves fuzziness—words whose job is to make things fuzzier or less fuzzy.
2. Modality: the speaker's opinion or attitude towards the proposition that the sentence expresses or the situation that the proposition describes .
3. Epistemic modality: The speaker's explicitly qualifying his commitment to the truth of the proposition expressed by the sentence he utters. It is related to the sender's knowledge and beliefs concerning the information that is presented, extending to the sender's confidence or lack of confidence in the truth of the proposition expressed.
4. NS : Native speaker the native language of the learner.
5. NNS : Non-native speaker.

CHAPTER 2

REVIEW OF LITERATURE

2.1 Exploring the Concept of Hedging

The words hedge and hedging can be broadly defined as referring to a barrier, limit, defence, or the act or means of protection or defence. Many of the pragmatics-oriented interpretations of the two terms may be associated with these general meanings. Over the years, however, linguistic hedging has been viewed from different angles by researchers. In what follows, I shall therefore first discuss the development and uses of the concept in linguistic literature in general.

2.1.1 Hedging in Linguistic Literature: From Semantics to Pragmatics

From Semantics to Pragmatics although the terms hedge and hedging have been part of the linguistic vocabulary for some thirty years now, no unified description of the concepts is to be found in literature. As Hyland states, straightforward definitions of the notions are rather rare (1998: 1), and the existing characterizations soon reveal that the terms are used in different ways by authors. Despite attempts to bring order into the multitude of definitions, it appears that researchers continue to approach the concepts of hedge and hedging in a variety of ways.

Differences can also be found in terminology relating to the area, terms other than hedge and hedging being employed to describe some of the linguistic phenomena elsewhere described as hedges. Hedging have in other studies also been treated under headings such as evidentiality (Chafe 1986), mitigation (Labov and Fanshel 1977, Stubbs 1983), indirectness (Tannen 1982, Lakoff 1990, Hinkel 1997), tentativeness (Holmes 1983), and vagueness (Channell 1994, Myers 1996).

The earliest studies dealing with the concepts of hedge and hedging were based on Zadeh's (1965) work on fuzzy logic, in his work it is stated that some objects of the natural world do not easily fit into the linguistic categories available to describe the universe. Primarily linguistically oriented treatment of hedges is first seen in the work of George Lakoff, who drew attention to the problem of relating natural phenomena to natural

language concepts, which he claimed to have “vague boundaries and fuzzy edges” (1973: 458). Lakoff was especially interested in the linguistic phenomena used to talk about the more peripheral members of broad conceptual categories. To illustrate the practical possibility of studying such linguistic items in terms of formal logic and to address the questions involved in such analyses, Lakoff observed a group of words that he regarded as hedges, “words whose meaning implicitly involves fuzziness—words whose job is to make things fuzzier or less fuzzy” (1973: 471).

Lakoff’s early work and his definition of hedges have been used as a starting point in a number of later analyses of hedging phenomena. Although the meaning of the term hedge has since broadened to cover linguistic items other than the kinds listed in Lakoff’s paper, his discussion remains most useful for purposes of explaining the semantic basis on which the notion of hedging rests.

In many studies following Lakoff’s (1973) paper, the status of hedges in conceptualization has not been discussed at greater length, the emphasis being instead on the functions of hedging in social interaction between discourse participants. Hedging has thus more recently been approached as a pragmatic rather than a purely semantic phenomenon. Hedging phenomena have often been perceived as contributing to the interpersonal function of language, by which we may recognise the speech function, the type of offer, command, statement, or question, the attitudes and judgments embodied in it. Insofar as hedges also serve to comment on what is being said, they have been studied as a feature of meta-discourse, “discourse that calls attention either to the relationship between the author and the claims in the text or to the relationship between the author and the text’s readers” (Geisler 1994: 11), more specifically as a subtype of interpersonal meta-discourse (e.g. Crismore 1989).

2.1.2 Hedging as a Semantic Phenomenon with an Ideational Function

Lakoff's semantic characterization of hedging portrayed hedges as words that may realize two seemingly contradictory functions; namely those of making things fuzzier or less fuzzy. It appears that hedges have been approached as devices with the primary function of making things semantically fuzzier, whereas the idea of hedging as a strategy decreasing linguistic fuzziness comes up rarely in literature. However, by considering the status of hedges in how we conceptualize the universe, it is possible to display that at the semantic level hedging may indeed be seen to have both of these dimensions.

2.1.2.a Hedging as an Increase in Fuzziness

As Salager-Meyer (1994: 150) states, hedging is often linked to purposive vagueness and tentativeness, which suggests that hedges are typically associated with an increase in linguistic fuzziness. This view can be traced back to G. Lakoff's work, which emphasized that natural language sentences are not often entirely true, false, or illogical, but rather somewhat true and somewhat false, and that membership in conceptual categories is not a simple yes-no question, but a matter of degree (1973: 458-459). Brown and Levinson (1987: 145) explain Lakoff's work and say that hedges may be regarded as elements that can "modify the degree of membership of a predicate or noun phrase in a set." In this capacity, then, hedges can also be used to place the truth value of referential information somewhere on the continuum between absolute truth and falsehood. To provide a simple example, following Lakoff's (1973: 459) "birdiness hierarchy", instead of making a categorical statement such as:

(1) Penguins are birds.

We can insert a fuzzy expression into the statement to modify the degree of penguins' membership in the category of birds, vaguely placing penguins at the unspecified outer limits of birdiness:

(2) Penguins are sort of birds.

By virtue of its vagueness and imprecision, the hedge can be thought to make the conceptualization of the status of penguins more fuzzy, which may in pragmatic terms be presumed to signal that the sender wishes to control his or her commitment to the accuracy of what is being said.

Instead of being included within the category of ‘true’ propositions, the assertion is distanced from the category of absolute truthfulness and is placed at an unspecified point on the continuum between truth and falsehood. Lakoff’s work thus shows that hedging as an increase in fuzziness can be a useful means of expressing less than full commitment as concerns both membership in a specific conceptual category and the accuracy of entire propositions.

2.1.2.b Hedging as a Decrease in Fuzziness

The view of hedging as an increase in fuzziness only accounts for the first half of Lakoff’s (1973) initial description of hedges. As stated, many studies have given priority to this aspect, and disregarded Lakoff’s comment that hedges may also be thought to make things less fuzzy.

Thus, apart from items increasing fuzziness by means of placing phenomena at the vague periphery of conceptual categories, hedges may possibly be looked upon as devices that decrease fuzziness. Hedges could be interpreted to indicate that the phenomenon under observation does not suit to the restricted conceptual categories of natural language.

Either the relationship between a phenomenon and a conceptual category or the truthfulness of a proposition can be portrayed as accurately as possible through hedging. In the case of this interpretation, too, the sender may be seen as exercising caution when constructing utterances, in an attempt to statements that would be too categorical.

To sum up the discussion of Lakoff’s initial work on hedges, we can detect two seemingly different motivations for hedging in view of the conceptualization of the universe. On the one hand, in increasing the fuzziness of their utterances, language users can be thought to play down the degree of their commitment to the accuracy of concepts or propositions. On the other hand, hedges can also be perceived to decrease fuzziness when the language user thinks the relevant conceptual categories inadequate for purposes of describing a given phenomenon or when the accuracy of a proposition needs to be specified as not entirely certain.

The two semantic characterizations of hedging offered above both stem from the element of fuzziness existing in hedging devices, it probably often being impossible to distinguish between the interpretations in practice. Nevertheless, being aware of these

possible interpretations is useful when we turn to the way in which hedging occurs in different communication situations. First, hedges are sometimes needed in utterances to mark the information presented as uncertain, vague, or imprecise, that is, to indicate that one's knowledge of the world or the evidence available does not allow one to assign the phenomena under observation to the relevant conceptual categories or to put forth unhedged propositions. Second, hedging may be seen to take place when the limited set of natural language concepts or the use of an unhedged proposition is not deemed sufficiently precise to give the right representation of reality, that is, without qualification, all the necessary information cannot be presented. On such occasions, then, items useful for indicating degrees of less than complete commitment toward specific concepts and propositions provide a useful semantic tool.

2.1.2.c Post-Lakoff Views of Hedging

As noted, most studies following Lakoff's treatment of hedges have concentrated on the pragmatic aspects of hedging instead of the semantics of the strategy. However, the semantic side of matters is also quite prominent in some studies, for example in the work of Prince et al. (1982) and Hübler (1983). Prince et al.'s (1982) work on hedging in pediatric intensive-care unit physicians' speech approaches hedges—which the authors only see as items making things fuzzier (p. 84), not less fuzzy—by dividing them into approximators and shields. The former category resembles G. Lakoff's (1973) semantic conception of hedges in that its members signal “non-prototypicalness with respect to class membership” (1982: 86). Approximators are further divided into two main types, *Adaptors*, which modify a term to suit a non-prototypical situation (e.g. *sort of*) and *Rounders*, which indicate that a term is not exactly precise (e.g. *about*). Plausibility Shields indicate different degrees of uncertainty on part of the speaker (e.g. I think, probably), whereas Attribution Shields (e.g. according to her estimates, mother says that) attribute the degree of uncertainty toward a proposition to another party. Prince et al. suggest that only approximators affect truth value, whereas shields leave the truth conditions of propositions unchanged, only “affecting the degree of speaker-commitment” (p. 93).

Markkanen and Schröder (1997: 5) are also doubtful about the usefulness of the division. Such a division is rather difficult to uphold, as it seems that when one hedges so

as to modify group membership or truth value in the way explained above in the discussion of Lakoff's work on hedges, one can simultaneously strive for pragmatic goals, for such semantic procedures do not take place in a void, but are determined according to the context. So, the underlying motivation for semantic modifications can also be viewed from a pragmatic point of view as concerns the language users' reasons for making such modifications. Thus, I think, Prince et al.'s categories of approximators and shields may in fact be assumed to hold very similar pragmatic potential, which casts doubt on the usefulness of the distinction.

In conclusion, G. Lakoff's (1973) as well as Prince et al.'s (1982), and Hübler's (1983) characterizations of hedges and hedging provide further insights into the semantics of hedging, illustrating their ideational function. By elucidating the principles according to which fuzzy items affect the experiential component of the ideational function of language, we can perceive how hedging may work at the semantic level, how it can affect meaning in the abstract. What is therefore needed to understand the interactional rationale underlying the use or non-use of hedges in utterances is a closer analysis of the value of hedging in different communication situations, that is, a more thorough analysis of the pragmatic potential of the strategy (cf. Holmes 1995: 93 ff.). In what follows, the emphasis will thus move toward the pragmatic aspects of hedging.

2.1.3 Hedging as a Pragmatic Phenomenon with an Interpersonal Function

Apart from its central role in the conceptualization of the universe, language also has other functions. As Widdowson (1984: 71) says, language serves a social purpose in that it "provides the means for conveying basic conceptual propositions, for setting them in correspondence with those in the minds of other people, and for using concepts to get things done in the business of social interaction."

In much of the more recent work relating to hedging, it is the interpersonal aspect of the strategy that has been given emphasis, hedging having been analyzed with an eye on the communication situation, particularly the effect of the strategy on the relationship between sender and addressee in face-to-face communication. Furthermore, in a cross-linguistic treatment of hedges in philosophical texts, Markkanen and Schröder (1987: 48) define hedging as a strategy of "saying less than one means", the functions of the strategy being to

modify the writer's responsibility for the truthfulness of an utterance, to modify the definiteness of an utterance or its information, and to modify the attitude of the author to the propositions and information given in a text or even to hide this attitude.

However, many earlier pragmatic descriptions appear one-sided because they mainly give attention to hedging as a strategy allowing senders to protect themselves. What many discussions appear to be missing, however, is a more thorough analysis of hedges in linguistic interaction considered in more detail, with attention to not only the sender's self-protection, but also to the communication situation more widely, including the addressee and the relationship between the discourse participants. The most precise treatment of the interpersonal features of hedging so far is to be found in literature relating to politeness theories, mainly in work originating from Brown and Levinson's (1978/1987) well-known study of politeness phenomena.

It seems that most of the earlier pragmatic portrayals of hedging may in one way or another be associated with the expression of linguistic politeness, the theory presented by Brown and Levinson (1978/1987) probably offering the most systematic basis for an analysis of the pragmatics of hedging and implicitly accounting for many of the descriptions suggested in other studies.

2.1.3.a Hedging as an Interpersonal Politeness Strategy

The Notion of linguistic politeness first received attention in connection with Paul Grice's studies on conversational maxims from the late 1960s onwards. Grice suggested that in order to account for language use in context, a politeness maxim should perhaps be added to the well-known maxims he had established in connection with his cooperative principle (maxims of quality, quantity, relation, and manner). Grice's idea became the basis for what Fraser (1990) calls the conversational-maxim view of politeness, found in the work of Robin Lakoff and Geoffrey Leech. One of the first studies to approach politeness from the conversational-maxim viewpoint was Robin Lakoff's (1973) paper where she called for an elaboration of the Gricean maxims with regard to politeness. Lakoff wished to show that in addition to abstract semantic and syntactic rules, language users follow rules of pragmatic competence for reasons of politeness. In short, Lakoff wanted to emphasize that there are two basic areas of linguistic competence underlying our behaviour during

linguistic interactions, one area being realized by adhering to the principle of clarity (realized by means of the original Gricean maxims) and the other by observing principle of politeness. Acknowledging the importance of both areas is necessary for an understanding of the mechanics of cooperative linguistic interaction.

R. Lakoff's elaboration of Grice's original principles is developed further in the work of Geoffrey Leech (1983), who includes politeness in his interpersonal rhetoric. Interpersonal rhetoric involves three different sets of conversational maxims, namely those pertaining to Grice's cooperative principle, the principle of politeness similar to that of R. Lakoff, and the irony principle. In Leech's (1983) theory, politeness may be realized by weighing one's linguistic behaviour against a group of maxims by means of which speakers can minimize hearer cost and maximize hearer benefit (tact maxim), minimize their own benefit and maximize that of the hearer (generosity maxim), minimize hearer dispraise and maximize hearer praise (approbation maxim), minimize self-praise and maximize self-dispraise (modesty maxim), minimize disagreement and maximize agreement between oneself and others (agreement maxim), and minimize antipathy and maximize sympathy between oneself and others (sympathy maxim).

A somewhat different approach to the study of linguistic politeness was developed by Brown and Levinson (1978/1987). While R. Lakoff and Leech had been interested in politeness as part of a system of conversational principles, Brown and Levinson looked at politeness as if it were a reason not to follow conversational principles. In Brown and Levinson's work, principles of politeness are thus not included within the same framework as the kinds of principle postulated by Grice. Instead, politeness is seen as distinct from such rules, indeed as a social reason to deviate from Grice's 'asocial' principles of linguistic behaviour.

Brown and Levinson's theory of politeness focuses on the idea that in linguistic interaction certain illocutionary acts, even when in accordance with Grice's cooperative principle; threaten a person's face, either the negative or positive side of it. Such utterances are referred to as face threatening acts (FTAs), and it was Brown and Levinson's view that politeness enters the picture when we want to play down the effects of FTAs. The basic principle underlying Brown and Levinson's work is then that "a face-bearing rational agent will tend to utilize the FTA minimizing strategies according to a rational assessment of the

face risk to participants” (1987: 91). For example, a hearer’s negative face may be under threat when a speaker is too assertive, thus imposing upon the hearer’s own opinions, or a hearer’s positive face may be threatened when a speaker insults the hearer. Similarly, an illocutionary act may be damaging to a speaker’s own negative face when he or she is forced to make an involuntary offer or promise, or the speaker’s positive face may be on the line when he or she has to admit to a mistake. Two kinds of politeness, negative and positive, can then be adopted so as to avoid doing FTAs baldly, that is, politeness may be used to counteract the threat that FTAs may impose.

2.1.3.b Hedging as an Interpersonal Negative Politeness Strategy

Much of previous work on the interpersonal aspects of hedging is based on Brown and Levinson’s (1978/1987) treatment of hedges, where it is reasoned that hedges can be used to avoid presuming or assuming that anything involved in the FTA is desired or believed by the hearer (1987). Brown and Levinson thus discuss hedging at greater length as one of ten strategies linked to negative face protection, although they do point out that hedges may have other functions as well, including the protection of positive face (1987).

Hübler (1983) picks up the idea of hedging phenomena as indications of negative politeness and contends that hedges are primarily used in negative face work, hedging devices being “detensifying” elements which senders can employ “to maximize the emotional acceptability of the propositional content presented to the hearer for approval.” On the one hand, senders may hedge utterances so as to leave room for the audience’s opinions, in this way recognizing its want of self-determination. It is particularly this aspect of hedging that has been emphasized in literature on politeness, hedges being a useful means of avoiding “apodictic statements” that might be interpreted as “ex-cathedra formulations” overlooking the audience’s wish to judge for themselves (Hübler 1983: 159). On the other hand, hedges can also be interpreted as simultaneously serving the sender’s negative face needs.

As explained above, hedging has previously been described as a means of self-protection. In being tentative and cautious through hedging, senders can limit their responsibility toward the information presented, and so obviously attempting to avoid

potential impositions on their own views in the form of audience criticism. By way of illustration,

(3) Linguistic politeness is more or less the most interesting area of pragmatics.

(4) I think that politeness theories constitute the most interesting area of pragmatics.

In (3) and (4), expressions modifying group membership and illocutionary force are inserted to qualify the assertions. In conceptual terms, more or less distances linguistic politeness from the category of ‘the most interesting area of pragmatics’ and I think that modifies the force of the entire utterance, placing the proposition somewhere on the continuum between absolute truth (‘yes, they definitely are’) and falsehood (‘no, by means they are not’) by marking the utterance as a subjective view, not a categorically correct assertion.

Turning to the semantic background of the types of negative politeness involved in the examples, the two interpretations mentioned above, namely increasing and decreasing fuzziness may be used to analyze the interpersonal potential of hedges. On the one hand, both “more or less” and “I think that” can be thought to increase conceptual imprecision and make things fuzzier. More or less, by means of making category membership indeterminate and I think that, in marking the truthfulness of the proposition as uncertain, underline that what is being said might not be accepted by everyone, the fuzziness of the expressions allowing the addressees to disagree and offering the sender the possibility to prevent potential opposition from the audience.

Alternatively, the hedges can be thought to increase the precision of the utterances, to make things less fuzzy. The hedges may be seen as signals either that the conceptual category involved (i.e. ‘the most interesting area of pragmatics’) is not an adequate portrayal of *politeness theories* or that the proposition does not fulfill the criteria of ‘true’, but is more accurately worded when hedged.

In brief, both increasing and decreasing fuzziness in terms of hedging may be interpreted as aiming at the interpersonal goal of negative politeness. Whether the underlying semantic basis is that of rendering things fuzzier or that of making them less fuzzy is difficult to decipher, because the same linguistic items can be interpreted to achieve both goals. The rationale behind the use of hedges is always a matter of the

individual language user and his or her conception of the communication situation. Hence, negative politeness may be employed on different grounds in different contexts. In sum, due to its negative politeness potential, hedging can be regarded as part of “a system of interpersonal relations designed to facilitate interaction by minimizing the potential for conflict and confrontation inherent in all human interchange” (R. Lakoff 1990: 34).

2.1.3.c Hedging as an Interpersonal Positive Politeness Strategy

In much of previous work, hedging has been viewed as a negative politeness strategy, but it may also at times be seen to have a positive politeness dimension. This aspect of hedging has received little attention in literature, but is nonetheless implied by some authors like Aijmer (1986: 15), who says that if “the focus in the communication situation is on the relationship between speaker and hearer, the hedge can become a strategy signalling intimacy and ‘rapport’.” Hedges can sometimes be used toward this end:

(5) In a way, that picture is beautiful.

Brown and Levinson (1978) argue that by using such hedging, the sender avoids communicating his or her opinion precisely and calls upon the addressee to use his common knowledge when interpreting the sender’s opinion.

Similarly, when the positive face of the addressee is threatened because of the criticisms or complaints of the sender, the sender may choose to play down the threat and hedge:

(6) You made a kind of a mess of it, didn’t you?

In both (5) and (6), the hedges can be analyzed as positive politeness markers that reduce the threat to the positive face of the addressee.

If we consider the way in which hedges work at the semantic level toward positive politeness, there is not much of a difference in comparison with the characteristics of hedges as indications of negative politeness. On the one hand, positive politeness may be associated with an increase in fuzziness. In fact, the hedge “In a way” provides an interesting example where the semantic status of the hedge is difficult to determine. The insertion of “In a way” into (5) can be thought to increase fuzziness and make the status of the proposition indeterminate with regard to the extremes of ‘true’ and ‘false’. In this particular case, the hedge might also be seen to limit the membership of the painting in the

conceptual category of ‘beautiful’, that is, to fuzzily indicate that some undefined aspects of the painting may be considered beautiful, which may be taken as an invitation for the addressee to acknowledge such aspects. The two interpretations provide an interesting example of a case where it is difficult to see whether the hedge works at the level of a specific concept or the entire proposition. On the other hand, the hedge in the same example may also be interpreted to decrease fuzziness in that the hedge underlines that the proposition may not be seen as absolutely ‘true’ but is best worded with a limiting term or in that the painting does not fulfil the criteria that would allow one to classify it into the category of ‘beautiful’ without qualification, pointing out that the sender is seeking agreement by not making absolute, potentially debatable statements about the issue at hand.

2.2. Interpersonal Functions of Hedging: Contexts and Interpretations

What appears problematic in the analysis of the above-discussed interpersonal aspects of hedging is the functional complexity of the phenomenon. As Thomas (1995: 176) points out in her criticisms of Brown and Levinson’s account of politeness, their theory implies that negative and positive politeness are mutually exclusive, but in practice even a single utterance may be seen to aim at politeness of both types. Distinguishing between the functions in authentic language use is by no means a straightforward task and the reasons for using a hedge may only be analyzed on the basis of sufficient knowledge about the communication situation. Nonetheless, even then many interpretations remain subjective and potentially ambiguous.

All in all, given the different views presented, hedging seems to have a range of purposes to which it can be put as a politeness phenomenon. In previous studies, various aspects of hedging in politeness function have been suggested, but the interpretations nonetheless at times appear conflicting, being restricted by the kinds of communication situation considered by researchers. A careful analysis of the various sociological variables involved in discourse should be taken into account when investigating the phenomenon of hedging. It is through an examination of the roles of the discourse participants in the communication situation under observation that we can attempt to arrive at a better understanding of the interactional workings of hedges as politeness phenomena in different contexts. In this study, none of the above descriptions of hedging as a means toward

politeness is ascribed to as such. Instead, it is presumed here that hedging may in principle have any of the politeness functions.

However, it is also assumed here that in pragmatic terms hedging is not merely confined to the politeness functions, but that it may also carry other kinds of potential. In order to understand the ways in which hedges may be employed, a close consideration of the semantic and pragmatic features of the phenomenon in different communicative contexts is necessary. In the present study, hedging is approached in broader terms as a process by which linguistic items including an inherent element of fuzziness are introduced into discourse. In different communication situations, these elements can be seen to increase or decrease semantic fuzziness. Such semantic potential may be employed to modify group membership, affect truth value, and to tone down illocutionary force, and, accordingly, serve different pragmatic functions in linguistic interaction, including not only linguistic politeness but also pragmatic ends of other kinds.

2.3. Gender Difference and Hedging

Since the publication of the book by Lakoff (1975) who claims that hedges are one of the major features of what she calls “women’s language”, a number of sociolinguistic gender studies have been carried out. (e.g. Holmes 1988, 1990; O’Barr and Atkins 1998; and van Baalen 2001). Hedges, in general, express the speaker’s uncertainty or “mitigate the possible unfriendliness or unkindness of a statement”, which can reflect women’s assumption that “asserting themselves strongly isn’t nice or ladylike, or even feminine” (Lakoff 1975: 53-54). Further, Tannen (1994) and Coates (1996) add that women’s speech style is cooperative and supportive; for example, they tend to resort to positive politeness strategy to keep the collaborative floor. In contrast, men’s speech style is more competitive and assertive. This argument can also lead to the assumption that hedges are considered to express unassertiveness and thereby be used more often by females than by males. In this area of research, a number of studies have adopted a quantitative approach to prove the validity of the contention by Lakoff, Tannen, and Coates.

O’Barr and Atkins (1998) have found that hedges and other features defined by Lakoff as women’s language are used more often by people with lower power position regardless of the sex in an American court. For example, their research shows that a female

doctor, as an expert witness, uses very few hedges. They conclude that the social position, rather than gender, seems to be an important factor in determining the language style. On the other hand, in examining a mixed-sex discussion program on British TV, van Balen (2001) states that her data shows no significant differences in total use of hedges between the two sex. However, when the analysis is based on experts vs. non-experts, she has found that female experts employ more hedges than female non-experts, male non-experts using more than their expert counterparts. According to her, her study confirms the claim made by Tannen (1994) and Coates (1996) about professional females' speech behavior that "women downplay their authority and hedge their utterances in order not to sound authoritative and thereby disturb the collaborative floor", while men tend to boast of their expertise. Thus, the results of the previous studies do not show a consistent tendency of professional women's hedging patterns in public contexts.

2.3.1 The Communicative Competence Of Women

Early attempts to distinguish writing and speech norms of different communities focused on sociological factors such as economical status, ethnic minorities and age. Through these research, the belief that males and females may somehow differ in their communicative behavior, and thus compose different speech communities, became the focus of researchers in the early 1970's. Although lacking in empirical research, and influenced by bias about gender roles (Coates 1989: 65), this initial work on women's language, specifically the usage of several linguistic features, proved influential toward becoming an important issue in the study of linguistics. Research since these early works has focused empirically on a variety of features, such as the use of tag questions, interruptions, questions, Standard forms and minimal responses. It is now understood that men and women differ in terms of their communicative behavior (Coates 1989). In explaining these differences, however, Montgomery (1995) warns that there is a sense of variation in writing and speech differences between men and women.

One sociological point to be remembered, he states, is that 'speech differences are not clear-cut' and a set of universal differences does not exist. (p.166). Gender, as a 'dimension of difference' between people should always be thought of in relation to other dimensions of difference, such as those of age, class, and ethnic group. A second point he

stresses is that linguistically one must be clear as to what is being identified as a difference between the sexes. Unless examining identifiable linguistic behavior, such as interruptions or tag questions, it is difficult to validate generalized claims of dominance, politeness or subordination. Even then, 'the formal construction of utterances is no consistent guide to what function they might be performing in a specific context. (p.167).

Reinterpretations of gender-differentiated language fall into one of two approaches, which reflect contrasting views of women in society. The *dominance* approach considers language differences to be a reflection of traditional social roles, that of men's dominance and women's subordination. The *difference* approach, in contrast, focuses on sex speech differences as outcomes of two different subcultures. Women, it is claimed, come from a social world in terms of solidarity and intimacy, while men are more hierarchal and independent minded. Contrasting communicative styles are born out of these two subcultures.

2.3.2 Lakoff And The Dominance Approach

The *dominance* approach to sex differences in speech is concerned with the imbalance of power between the sexes. Powerless speech features used by women help contribute to maintaining a subordinate position in society; while conversely, men's dominance is preserved through their linguistic behavior.

Early research that regards imbalance of power as a main factor toward gender writing and speech differences can be attributed to Robin Lakoff, and her influential work 'Language and Woman's Place' (1975). Although relying heavily on personal observation, and later criticized for its feminist bias and lack of empirical research, Lakoff's definition of 'woman's language'-both language used to describe women and language typically used by woman, created an initial theoretical framework which would be critiqued and expanded by future researchers. Lakoff provides a list of ten linguistic features which characterize women's speech, as follows:

1. Lexical hedges or fillers, e.g. *you know, sort of, well, you see.*
2. Tag questions, e.g. *she's very nice, isn't she?*
3. Rising intonation on declaratives, e.g. *it's really good?*
4. 'Empty' adjectives, e.g. *divine, charming, cute.*

5. Precise color terms, e.g. *magenta, aquamarine*.
6. Intensifiers such as *just* and *so*, e.g. *I like him so much*.
7. 'Hypercorrect' grammar, e.g. consistent use of standard verb forms.
8. 'Superpolite' forms, e.g. indirect requests, euphemisms.
9. Avoidance of strong swear words, e.g. *fudge, my goodness*.
10. Emphatic stress, e.g. *it was a BRILLIANT performance*.

(cited in Holmes 2001:286)

Consistent in Lakoff's list of linguistic features is their function in expressing lack of confidence. Holmes (2001) divides this list into two groups. Firstly, those 'linguistic devices which may be used for hedging or reducing the force of an utterance,' such as fillers, tag questions, and rising intonation on declaratives, and secondly, 'features which may boost or intensify a proposition's force' (p.287), such as emphatic stress and intensifiers. According to Lakoff, both hedging and boosting modifiers show a women's lack of power in a mixed-sex interaction. While the hedges' lack of assertiveness is apparent, boosters, she claims, intensify the force of a statement with the assumption that a women would not be taken seriously otherwise. For Lakoff, there is a great concordance between femininity and unassertive speech she defines as 'women's speech.' According to her, in a male-dominated society women are pressured to show the feminine qualities of weakness and subordination toward men. Thus, "it is entirely predictable, and given the pressure towards social conformity, rational, that women should demonstrate these qualities in their speech and writing as well as in other aspects of their behavior." (Cameron, McAlinden and O'Leary 1989:76). Although Lakoff's claims were revolutionary- there was no substantial work on gender and language before her work- her lack of empirical data left the door open for further research into her substantive claims.

2.3.3 The Difference Approach

Rather than assuming writing and speech differences among men and women are related to power and status, the more recently emerging *difference*, or *dual-culture*, approach views sex differences as attributable to contrasting orientations toward relations (Montgomery 1995:168). For men the focus is on sharing information, while women value

the interaction process. Men and women possess different interactive styles, as they typically acquired their communicative competence at an early age in same-sex groups.

According to Maltz and Borker (1982), who introduced this view which values women's interactional styles as different, yet equal to men's, the contrasting views of relationships are apparent: negotiating with a desire for solidarity in women, maintaining status and hierarchical order in men. The frustration that occurs between women and men in conversation can be better understood 'by reference to systematic differences in how women and men tend to signal meaning in conversation. (1994:7). When these meaning signals are misunderstood, communication breakdown occurs.

Tannen describes *metamessages*- information about the relations and attitudes of the speakers involved- as common signals which are misinterpreted in mixed-sex conversation. Metamessages depend for their meaning on subtle linguistic signals and devices. These signals and devices and how they work (or fail to), are at the core of the difference approach.

2.3.4 Hedging Devices In Male And Female Writing And Conversation

The basic function of hedging devices is to indicate that speakers or authors are not committed to what they say or write. In other words, they avoid making explicit statements. The interpersonal function of hedges is to take account of the feelings of the addressee. Conversations are not just about people and events, they also reveal the speakers' attitudes to their addressees.

Hedging devices are useful to express opinions but to soften them in the process. Hedging devices help the speaker or the author to avoid imposing on people. Tannen (1990) and Coates (1996) found that the use of hedges by women is closely related to the speaking styles and kinds of conversations women have. Tannen (1990: 77) argues that "for most women, the language of conversation is primarily a language of rapport a way of establishing connections and negotiating relationships". Women place emphasis on "displaying similarities and matching experiences" (Tannen 1990: 77). Coates (1996: 162) claims that the use of hedges by women is closely related to three aspects of their conversations. Women often discuss sensitive topics which may arouse strong emotions in

the speakers and their addressees. In order to avoid creating arguments, they tend to hedge their assertions.

The second aspect of all-female talk is mutual self-disclosure. Telling others about personal experiences (necessary for establishing friendship) is easier when it is done in a mitigating way and hedges are useful for doing so. The third aspect of women's talk is that a collaborative floor is maintained. A collaborative floor involves social closeness, and the group's voice is considered to be more important than an individual opinion. In this respect it is important for women not to make hard and fast statements about topics that could be sensitive to others. Knowledge of topics of conversation also plays a role in the use of hedges. Women are more inclined to downplay their authority, as playing the expert in a conversation creates social distance. In other words, women sometimes deliberately use hedging devices to avoid a hierarchical structuring of relationships.

All-male talk is different. It is characterised by a one-at-a-time structure. There is little overlap in men's conversations and consequently "the ideas expressed by individuals in those turns are seen as individually owned" (Coates 1997: 124). Male friendships do not seem to place a great value on talk; men concentrate more on doing things together, such as sports. On the other hand men generally place greater value on what is being said, on exchange of information. Tannen (1990: 77) calls this phenomenon "report talk": for men "talk is primarily a means to preserve independence and negotiate and maintain status in a hierarchical social order". She claims that men establish their status by "exhibiting knowledge and skill and by holding centre stage through verbal performance such as story-telling, joking or imparting information" (1990: 77). Men do not often discuss personal things but their conversations seem to involve sports and politics quite frequently. Since no collaborative floor is maintained in their conversations, men do not feel as strong a need to agree with each other as women do. When politics or other rather impersonal things are discussed and when there is no need to agree on a subject, men could be expected to use fewer hedging devices than women do. This is not to say that men do not use any hedges at all. They use hedging devices in different ways, for example to indicate that although they may not have the right words at hand, they are not giving up their speaking turn.

With respect to cross-sex conversations, the supporters of the "dominance approach" see women as weak and tentative participants in conversations whereas men

determine which subject is discussed for how long. According to the “difference approach” men and women must make adjustments in order to make conversations possible. One of the supporters of the “difference approach” is Tannen, and she argues that communication between men and women is cross-cultural communication. In her opinion, a fundamental difference between the two sexes is that men see themselves as “an individual in a hierarchical social order” (Tannen 1990: 8) while women consider themselves “individuals in a network of social connections” (Tannen 1990: 9). Meinhof and Johnson, on the other hand, emphasise that men and women still draw on the same linguistic resources. They hold the view that “there must be some degree of similarity or overlap in the speech of men and women, otherwise it would be impossible to envisage a situation where they could ever communicate” (Meinhof and Johnson 1997: 11). In informal cross-sex conversations women are said to make more efforts to keep the conversation going by asking questions. Fishman (1983) observes that while women invest considerable effort in thus supporting the conversational needs of men, they do so at their own expense. Men usually determine the subject of the conversation and the point at which new topics are brought up. Holmes (1992) claims that men are more likely than women to dominate the speaking time on formal and public occasions, which would be in agreement with Tannen’s view that men are much more practised in report-talk or public speaking since they employ that speaking style in all-male conversations with friends as well. In view of all this, men would not be expected to use many hedging devices in cross-sex conversations as they are usually in control of them.

2.4 Linguistic Realization of Hedges

The earliest studies into hedging were limited to a fairly narrow selection of linguistic expressions, G. Lakoff’s (1973) paper, for instance, listing only about different items. More recently, numerous linguistic phenomena have been associated with hedging, there nevertheless being no absolute uniformity between studies as to which linguistic phenomena should be regarded as falling within the category. The multiplicity of the forms that hedging may take is indeed one of the main problems in the analysis of the phenomenon, as it appears that the devices cannot be classified exhaustively by referring to any clearly delimited traditional linguistic categories.

Literature relating to hedging seems to suggest that hedges are linguistic choices that include an inherent component of fuzziness, providing the opportunity to comment on group membership, truth value, and illocutionary force. However, there is variation between studies as to the actual items treated as hedges. In some studies, as is the case with Prince et al.'s (1982) paper, the phenomena treated as hedges are not described very thoroughly. In other studies, the focus is on a specific linguistic feature, not the broad range of alternatives available for hedging.

Lachowicz (1981), for instance, has examined the use of the actorless passive, pointing out that, in addition to its other uses, it is a useful strategy for hedging, because it is less dogmatic in tone and expresses a tendency toward generalizing cases in point, allows for the author to be more open to other possibilities of interpretation. Hedging has also often been associated with numerical imprecision. Dubois (1987), for instance, lists as hedges a number of items used for rounding numerical data, including items like *about*, *approximately*, *close to*, and *in that round*. The idea of numerical imprecision as hedging is also dealt with by Channell (1994).

While certain studies deal with a specific linguistic phenomenon, others have attempted to cover a wider range. Studying hedging in newswriting, Zuck and Zuck (1985), for example, draw attention to an array of devices. They first discuss how vagueness in presenting the sources of news items may amount to hedging and then proceed to presenting a list of other items typically used as hedges. Most of the items on the list are verbal or adverbial expressions that involve different degrees of probability or otherwise play down the responsibility of the sender as concerns propositional content. The main categories consist of auxiliaries (e.g. *may*, *might*, *can*, *could*), semi-auxiliaries (*appear*, *seem*), full verbs (*suggest*), the passive voice, various adverbs and adverbials (*probably*, *almost*, *relatively*), some adjectives (*probable*), and indefinite nouns and pronouns. Similar items are also mentioned by Markkanen and Schröder (1987), according to whom modal verbs, modal adverbs and particles, the use of some pronouns and even the avoidance of others, agentless passives, other impersonal expressions, and certain vocabulary choices may be seen as central manifestations of hedging in English and German.

When we look at the linguistic items that researchers have associated with hedging, it becomes clear that the scope of hedging has broadened considerably since G. Lakoff's

(1973) initial work. The limited set of items dealt with by Lakoff has expanded to cover a wide range. This has evidently been a result of the widening of the notion of hedging. With the widening of functional scope, researchers also became interested in a wider array of devices, it now being commonly recognized that delimiting the items that can be associated with hedging is difficult.

Although the different lists of hedges mentioned in previous studies are varied and might not account for all potential cases of hedging, they are nonetheless useful in illustrating some of the most central linguistic phenomena pertaining to the strategy. In essence, the linguistic forms dealt with in literature as hedges indicate reservation, avoidance of commitment, and uncertainty regarding what is being said, the effects of hedging typically being those of modifying truth value, commenting on the accuracy of a given conceptualization, and/or influencing the truthfulness and force of propositions. This perspective suggests a close affinity between the notions of hedging and modality. In fact, as Markkanen (1985) suggests, the definition of hedges offered by Brown and Levinson (1978) closely resembles, for example, Lyons' (1977) description of modality. A close association between hedging and modality is also visible in the work of Bloor and Bloor (1995), who use the terms almost interchangeably. Furthermore, Hyland (1998) equally establishes a close connection between hedging and modality.

The notion of modality has been treated extensively in literature. Lyons (1977) defines modality as the speaker's opinion or attitude towards the proposition that the sentence expresses or the situation that the proposition describes. It is widely recognized that modality represents a broad domain and that modal expressions are used in a variety of ways. In literature, a basic distinction is typically drawn between *epistemic* and *deontic* modality. According to Lyons (1977) epistemic modality is generally seen to occur when the speaker explicitly qualifies his commitment to the truth of the proposition expressed by the sentence he utters. Epistemic modality is thus related to the sender's knowledge and beliefs concerning the information that is presented, extending to the sender's confidence or lack of confidence in the truth of the proposition expressed. Lyons (1977) states that deontic modality is concerned with the necessity or possibility of acts performed by morally responsible agents. Deontic modality thus has to do with expressions of obligation,

duty, volition, and the like, reflecting the sender's attitude toward the desirability (or nondesirability) of certain actions or events.

Hedging has characteristically been linked to epistemic modality, because the meaning of both epistemically modal devices and hedges is closely related to the sender's degree of confidence regarding what is being said. This idea is advocated by for example Nash (1990), who says that modality is a useful insurance that limits our responsibility in pointing out the limitations of propositional information. A similar opinion is worded by Hyland (1998), who contends that the writer or speaker's judgements about statements and their possible effects on interlocutors is the essence of hedging, and this clearly places epistemic modality at the centre of our interest in the analysis of hedging. What with the increasing interest in the pragmatics of hedging and the recognition of the hedging value of epistemic modality, the focus of studies into hedging phenomena has expanded to a considerable degree since the early stages of studies concerning hedges. In many later studies of hedging, too, items characteristically seen as epistemic have been at center stage.

In terms of function, hedges of different kinds seem to resemble each other insofar as they share many of the central characteristics of the traditional category of epistemically modal expressions, which thus appears to provide a useful point of departure in the study of hedging phenomena.

Apart from the most central indications of epistemic possibility, then, it is also evident that attention should be given to the hedging potential of other items conveying epistemic meanings. Linguistic devices relating to epistemic possibility are apparently at the forefront of phenomena treated as hedges in much of previous work.

Granted the above, it seems that hedging may be quite usefully approached by associating it with the notion of epistemic modality understood in broad terms, especially phenomena associated with epistemic possibility having been of interest in previous work. In English, this means that a number of lexical categories, including certain modal auxiliaries (e.g. *may*, *might*, *could*), full verbs (e.g. *suggest*, *think*, *seem*), adverbs and adjectives (e.g. *perhaps*, *probably*, *potential*, *presumable*) and nouns (e.g. *possibility*, *probability*, *assumption*) become central items of interest for the linguist. This, however, is not to say that hedging may be studied on this basis without problems. Nor does it mean that hedging potential is limited to clear-cut cases of epistemic possibility only.

While the most central items pertaining to epistemic meaning, such as the modal auxiliaries, certain full verbs, adverbs, adjectives, and nouns are obvious candidates for use as hedges, one should also bear in mind that quite similar epistemic comments may additionally be expressed by a range of other items.

Despite the complexities involved, it nevertheless seems that relating hedging to epistemic modality provides us with a useful starting point for the analysis of hedging, allowing us to focus on inherently fuzzy items that can typically be used to hedge the information put forth. Due to the close association between hedging and epistemic modality, studies on the modal system additionally reveal many of the problems involved in trying to determine whether or not a given linguistic phenomenon may be seen to express epistemic meaning and whether it possesses hedging potential.

2.5 Hedging in Scientific Research Articles

The use of hedges in research articles is obviously based on the idea that scholars writing for other scholars have to prepare for a less than fully sympathetic response from the audience. Instead of being straightforward descriptions of scientific work, RAs are rather reports intended to increase institutional knowledge and to boost the authors' reputation, reports where the authors rather selectively reconstruct a suitable depiction of their scientific activities (Swales 1990: 175). One of the reasons underlying such reconstruction is the persuasion of the audience, as there is frequently "a need to anticipate and discountenance negative reactions to the knowledge claims advanced" (Swales: 1998). This need apparently arises from the requirements imposed upon the RA author by the assumed degree of the audience's background knowledge and the possibility of opposing views on the part of the readership, it being clear that alongside the theories and methods preferred and conclusions drawn by one scientist or a group of scientists, there may exist other approaches to the phenomenon under scrutiny. Therefore, instead of presenting the various stages of their research procedure as self evident choices, RA authors have to take into account potential audience opposition. Scientific writing can be characterized in Nash's (1990: 10) words as "a dialectical interpenetration of subjective and objective aspects", which in ideal terms can be taken to mean that the writer "evaluates and criticizes

the information and the propositions he or she tries to set down as fully, accurately, and objectively as possible. For centuries this dialectical processing of objective fact and subjective evaluation has been the goal of academic writing and of the training that leads to academic writing.” However, whether such processing in actual fact *always* takes place when less than absolute issues are reported is subject to doubt—one might also argue that this is so where it seems possible that without indications of such processing, opposition might arise among the audience.

The use of hedges can be regarded as a strategy by which RA authors may indicate that they have explored the limitations of their own research process, and that they have approached their own procedures critically, meticulously indicating to the readership to what degree their accounts can be seen to correspond to reality. This interpretation, establishing a clear link between the linguistic strategy of hedging and the social nature of scientific knowledge-making, appears to be the dominant one in literature dealing with hedges in RAs and in other kinds of communication between scientific peers, hedging being seen as essential in scientific writing because it “signals the writer’s anticipation of the opposition to a proposition” (Hyland 1996: 436). Thompson (1993: 118), for instance, explains that hedging in RA Results sections indicates the author’s reluctance to make absolute truth claims on the basis of the experiments carried out, the unwillingness being “designed to bring the reader into agreement with the author on what the experimental results mean.” The idea of hedging as a feature associated with authorial unwillingness to be absolute is also present in Markkanen and Schröder’s (1987: 48) work, where they describe hedging as being linked to “a kind of reluctance to show one’s colors.” According to Salager-Meyer (1994: 150), the scientific community does not appreciate arrogance or exuberance in making claims, whereas “contrast, humility, coyness, and cautiousness” are the expected virtues in scientific discourse. Instead of straightforward claims, “everything must be toned down; speculation can obviously be made but it must be apologized for.” Thus, Salager-Meyer contends, authors often resort to the use of hedges, which she defines as “understatements used to convey (purposive) vagueness and tentativeness, and to make sentences more acceptable to the hearer/reader, thus increasing their chance of ratification and reducing the risk of negation.” An author may not want to state something too definitely or concretely. The writer might simply wish to suggest an interpretation or point

to likelihood. This is a strategy for writing about data which not only allows for the possibility of alternative interpretations, but also partly shelters the author from strong criticism. As seen above, the functions of hedging in research articles have been worded in various ways by scholars. However, none of the depictions referred to in my opinion provides a very solid basis for analyzing hedges in the context of RAs. What these descriptions often have in common, however, is a concern for the potential of confrontation which in turn may be associated with linguistic politeness. Indeed, perhaps the first more systematic way of examining hedging in the context of scientific discourse such as RAs has been the application of theories of politeness.

CHAPTER 3

METHODOLOGY

3.1 Introduction

In this chapter, an overall design of the study will be presented, giving information about the participants involved in the study and the instruments analyzed by means of Word Smith Tool.

The present study will approach hedging in broad terms as a strategy by which language users can indicate degrees of less than full commitment toward the accuracy of conceptualizations of the universe. The emphasis in this study is not on any specific single formal or functional group of hedges, since hedging is here assumed to take myriad forms and various functions in different contexts. Thus, the focus in this study is on the identification and contextual interpretation of linguistic phenomena that may be seen as devices modifying group membership, truth value, or illocutionary force.

Obviously, corpus chosen for analysis, it is to be expected that certain typical expressions relating to tentativeness and uncertainty, such as modal auxiliaries, full verbs, and other lexical sets indicating epistemic possibility, will appear as hedges in the data. However, hedges are here perceived as an open-ended category, the present analysis also taking into account the hedging potential of a variety of other possible means that may be seen as epistemic. The aim in this study, then, is to examine the incidence of various kinds of hedges; namely modal auxiliaries, full verbs, nouns, adjectives and adverbs, in the data analyzed and to offer insights into the possible contextual interpretations of hedging phenomena, the aim in each case being to determine whether or not variation exists between the research articles of NNS and NS and levels of technicality investigated as concerns both the occurrence and functions of hedges.

Although the kind of inclusive view of hedging adopted in this study may be seen as fruitful in accounting for the multiplicity of forms that hedging can take, the approach is not altogether without problems. Accordingly, certain limits will have to be imposed on the types of hedging strategy to be analyzed in more detail here.

For instance, passivization is one of the linguistic strategies commonly mentioned in connection with hedging in scientific discourse, it being presumed that the passive voice, particularly when agentless, allows “writers to withhold full commitment to their propositions” (Hyland 1998).

While potentially at times associated with the kind of tentativeness and epistemic meaning useful for hedging purposes, it is not clear to what degree agentless passives can be interpreted in this way in scientific language use.

A similar situation also frequently applies to comments establishing a link between hedging and the choice of tense (Hyland 1998). While it may be possible to regard choices of voice and tense as strategies pertaining to hedging, a thoroughgoing analysis of the hedging potential of tense and voice would in all likelihood be impossible, not only because every sentence within the data chosen for scrutiny here involves choices of voice and tense but also because of the difficulty of determining where such choices are possibly intended to produce a hedging effect. Therefore, a conscious choice is made here not to attempt at quantifications of the hedging use of general syntactic strategies such as voice and tense, the quantitative analysis instead encompassing hedging as realized through the use of other epistemically oriented expressions ranging from lexical items to sentences.

In order to identify hedging phenomena and analyze their potential functions in research articles, the texts included in the corpus were scrutinized for linguistic devices that can in principle be seen to involve potential useful for expressing less than full commitment to the accuracy of conceptualizations of the universe. The context of each item identified was then analyzed. Each suspected hedge and a suitable amount of context for later reference was stored in computerized form by means of WordSmith Tool.

Having now illustrated ways in which the roles of hedges in RAs have been approached in earlier studies, it remains to be determined how the present study will proceed in its analysis of hedging.

Some of the earlier studies provide useful principles to be employed as starting points in the analysis. Thus, the present study shares Hyland’s and Varttala’s view that the best way to approach hedging in RAs is to acknowledge that hedging has certain prototypical realizations, such as epistemic modal auxiliaries, full verbs, adverbs, adjectives and nouns. The strategy of hedging is thus here understood to involve items that, due to

their implicit component of tentativeness, weaken the force of statements, contain modal expressions, express deference, signal uncertainty. Hedging in RAs, then, is here understood to refer to modal auxiliaries, nouns, full verbs, adjectives and adverbs that can be interpreted to limit the suitability of conceptualizations to describe a phenomenon or to signal less than full certainty regarding what is being said. For practical reasons, however, certain potential ways of expressing such meaning had to be left outside the quantitative analysis here due to difficulties of determining which potential cases might or might not involve epistemic meaning such as the use of the passive voice and tense.

As to analyzing the functions of the hedging devices identified in the RA data scrutinized, I agree with Hyland and Varttala in that the analysis of hedging on the sole basis of theories of politeness does not seem applicable in the social context of RAs. In addition, the approach adopted resembles that of Hyland in that hedging is here approached as a multifunctional, polypragmatic phenomenon.

The starting point for my analysis of the functions of hedges will be along the lines of the categories established by Hyland (1994) and Varttala (2001). However, the categorization is here understood to represent a taxonomy of potential *functions* that any hedge—whatever its surface form—may fulfill. Thus, Hyland's categorization is *not* understood as a taxonomy of *hedges*. The function(s) that specific hedges can be taken to have will not be taxonomized in the way Hyland has chosen to do. Therefore, Hyland's (1994) and Varttala's (2001) categorization is here regarded as open-ended, allowing for further alternatives of analyzing the pragmatics of hedging in RAs.

3.2 Procedure and Materials

The research articles constituting the NNS and NS corpora are all taken from refereed journals in the field of social sciences. For this study, the NNS articles come from journals issued by Social Sciences Institutes of various Universities in Turkey. All the articles were published between the years 2000 and 2005 and are comparable and homogeneous in terms of genre (academic research articles) and field (social sciences). All the authors in the NNS earned their PhD in Turkey, that is, they did not receive any formal instruction in any country where English is formally spoken. Also, research articles in the NNS corpus come from journals, the editorial board of which does not have a native speaker. As for the NS

corpora, they are all retrieved from refereed journals in the field of social sciences. They are selected from journals issued by Social Sciences Institutes of various Universities in Britain and United States of America. The selected articles were published between the years 2000 and 2005 and are comparable and homogeneous in terms of genre (academic research articles) and field (social sciences).

The corpus, comprising a total of 37.243 in NNS and 38.349 in NS, is made up of articles representing the subject fields of economy, education, law, literature. 45 articles were chosen and only the ones longer than 2000 words were included in the corpus to secure a sufficient amount of data. The corpora include the introduction and discussion/conclusion sections of the articles, relying on Salager-Meyer's (1995) view that hedging particularly characterizes the Introduction, a hypothesis-making opening section, and Discussion/Conclusion, discursive and speculative, sections of academic papers while it appears least in the almost purely factual (i.e., unhedged) Methods and The Results sections. Moreover the corpora was analyzed in different categories as full verbs, adverbs, adjectives, nouns and modal auxiliaries relying on Varttala's study.(2001)

3.3 Subjects

In the present study articles written by Turkish inter-language speakers of English and native English speakers in the field of social sciences are collected. Therefore, the native participants of the study are from different parts of Turkey, lecturing at various Universities in the field of social sciences. The Non-Native participants of the study are from the United States and England, lecturing at various Universities in the field of social sciences. The writers of the articles were chosen randomly and by means of libraries and e-journals. adjectives, nouns and modal auxiliaries relying on Varttala's study.(2001)

3.4 Software

In the study, Turkish inter-language speakers of English and native English speakers' articles were analyzed using WordSmith Tools program. This software is designed for text analysis and manipulation that generates word lists from one or more texts by frequency and by alphabet. WordSmith Tools can identify key words in a particular text

and create a database of keywords to enable identification of keywords and associated words.

When analyzing a verb or a noun in the text analysis, WordSmith software lists that verb and noun with its all case.

CHAPTER 4

DATA ANALYSIS

4.1 Introduction

The present study, as explained, will approach hedging in broad terms as a strategy by which language users can indicate degrees of less than full commitment toward the accuracy of conceptualizations of the universe. The emphasis in this thesis is not on any specific single formal or functional group of hedges, since hedging is here assumed to take numerous forms and various functions in different contexts. Thus, the focus in this study is on the identification and contextual interpretation of linguistic phenomena that may be seen as devices modifying group membership, truth value, or illocutionary force. Obviously, even without consulting the corpus chosen for analysis, it is to be expected that certain typical expressions relating to tentativeness and uncertainty, such as modal auxiliaries, full verbs, and other lexical sets indicating epistemic possibility, will appear as hedges in the data. However, hedges are here perceived as an open-ended category, the present analysis also taking into account the hedging potential of a variety of other possible means that may be seen as epistemic.

One of the most dominant and frequent type of hedges is said to be epistemic modality markers (Hyland 1998: 149; Salager-Meyer 1994; Vihla 2000; Varttala 1999). Similarly, Lyons notes (1977: 797) that “any utterance in which the speaker explicitly qualifies his commitment to the truth of the proposition expressed by the sentence he utters . . . is an epistemically modal, or modalized utterance”. Taking these views as basis, the present study will focus on epistemic modality markers as hedging devices signalling the writer’s anticipation of the opposition to a proposition (Hyland, 1996), cautiousness (Salager-Meyer 1994:150) and unwillingness to make absolute truth claims (Thompson 1993).

The selection of markers was primarily based on frequency in an exploratory corpus consisting of 45 articles. For the articles constituting the exploratory corpus, all epistemic modality markers were determined and counted by means of Word Smith tool. As mentioned above, in order to be considered an epistemic modality marker, the marker had

to qualify explicitly the truth value of a particular propositional content and be a lexical or grammatical unit. The most frequent epistemic modality markers were submitted to a quantitative analysis of the corpus as a whole.

4.2 Distributional Information and Authorial Views on Hedging

As noted previously, hedging has been demonstrated to occur quite frequently in research articles. However, it should also be borne in mind that hedging may not occur to the same degree throughout RAs, but certain sections may be more heavily hedged than others. Such findings are presented by Salager-Meyer (1994), who says that in her medical RA data Discussion sections were the most heavily hedged ones, followed by Results, Introduction, and Methods sections in decreasing order of frequency. In this thesis, therefore, I will focus on Introduction and Discussion/Conclusion sections of both NS and NNS articles written in the field of social sciences. Both NS and NNS articles followed the basic format very closely, even to the degree that main headings of the articles examined followed the same division. In the RAs, the word counts of 45 Results and Discussion sections were practically the same (NS: 17.406, NNS:16.360) and in the Introduction sections the word numbers were roughly in harmony (NS: 19.837, NNS: 21.949).

While it is clear that there are numerous ways in which hedging may be realized in English, there are certain evident types of linguistic expression that comes to mind in this respect. George Lakoff (1973) states that hedging was first approached with reference to a relatively limited set of hedges, including lexical items and phrases such as *roughly*, *sort of*, *strictly speaking*, and so on. In the course of time, the concept of hedging has come to be understood more broadly as including a number ways of expressing uncertainty, vagueness, hesitation, and the like, that is, to cover various linguistic manifestations of feelings and thoughts pertaining to limited knowledge or accuracy. From this perspective, then, hedging may be paralleled with qualifications realized by means of elements expressing epistemic modality. Nevertheless, it may be that when the notions of hedging and epistemic qualification are in question, certain modal auxiliaries and other lexical elements with related meanings are the devices that one almost automatically thinks of.

As noted, Hyland (1998: 104) is of the opinion that hedging in academic writing is first and foremost a lexical phenomenon. Whether or not this applies in all disciplines and

kinds of academic discourse is not certain. But at least the present results as well as those by Hyland (1998) lead us to believe that the modal auxiliaries—the starting point in many studies into modality in English—and certain other lexical manifestations of epistemic meaning occupy a central position when it comes to hedging and consequently obviously provide a fruitful strategic point in observing hedging in academic language use. Although the modal auxiliaries are not quantitatively speaking the most prominent group of hedges in the RA data and lexical devices are not the only kinds of hedge dealt with, in what follows I will begin by looking into how the modal auxiliaries were used as hedges in the data, to be followed by closer examinations of other lexical hedging phenomena.

4.3 Incidence of Hedges in Different RA Sections

As Table 1 shows, the findings regarding the distribution of hedges in the RAs on social sciences are not very far removed from Salager-Meyer's (1994) results on hedging in her medical RA corpus and Hyland's (1998) findings concerning the distribution of hedges in his biology RA data.

Table 1. Incidence of Hedges in Different RA Sections

	NS		NNS	
	f	%	f	%
Introduction	407	2.06	491	2.48
Discussion/Conclusion	459	2.32	377	1.91
Total	866	4.38	868	4.39

T- test was run to determine if there was any significant difference in the use of hedges between the NS and NNs . The significance level was set at $p < 0.05$; and no significant difference was found in Introduction, Discussion/Conclusion sections and the overall total use of hedges between the two groups.

As it is seen, the Introduction section of the NNS has a higher value of incidence of hedging whereas it is the Discussion and Conclusion section where NS employed more hedges. According to the table, it is clear that NNS hedge more in Introduction section (491) while NS hedge in Discussion and Conclusion section (459). This might be taken to

indicate that although Introduction section is often presumed to be as concise and economical as possible, authors do deem hedging as necessary in this component of RAs as well. This is indeed quite understandable, granted that RA abstracts may be seen as a discursial element enhancing the “news value” of the RA (Swales 1990: 179). In other words, the Abstract functions as an invitation for potential readers, where authors presumably wish to provide a concise account of the most important aspects of their work, but nonetheless in a manner that reflects the same requirements imposed upon the authors by the expectations of the scientific community that guide their mode of presentation in the RA itself.

While the overall results presented may be illustrative of the general incidence of hedging in the RA data, it is also of interest to investigate to what degree the different categories and subcategories of hedges distinguished occur in the different RA sections.

4.4 Hedging in Introduction and Discussion/Conclusion Sections

The table below shows incidences of hedges in different categories both in the Introduction and Discussion/Conclusion sections of the articles in the field of social sciences written by NS and NNS. As seen, Introduction sections were the first most commonly hedged part of the RAs in each section. As can be seen below, both similarities and differences could be detected between NS and NNS corpora in their use of the five main categories of hedging in Introduction and Discussion/Conclusion sections.

Table 2. Incidence of Hedges in RAs' Introduction and Discussion/Conclusion Sections

Categories	NS				NNS			
	Introduction		Discussion/Conclusion		Introduction		Discussion/Conclusion	
	f	%	f	%	f	%	f	%
Modal Verbs	130	0.66	247	1.25	133	0.67	154	0.78
Adverbs	96	0.49	73	0.35	66	0.35	30	0.16
Nouns	95	0.48	59	0.27	115	0.53	101	0.60
Full Verbs	48	0.27	36	0.20	88	0.45	55	0.31
Adjectives	38	0.20	40	0.21	74	0.35	21	0.11

As seen, category- by- category results in Table 2 reflect the overall findings in the Introduction and Discussion/Conclusion sections in both the NS and the NNS corpora. Thus, close up analysis reveals which hedging category the noticeable difference in the introduction and discussion/conclusion sections between the NS and NNS particularly results from. The difference between NS and NNS concerning the Introduction section is seen to be due to the heavy use of full verbs (48-88) and adjective categories (38-74).

As the breakdown of the results illustrates, the incidence of modal verbs in introduction sections of both NS and NNS corpora is nearly the same. The results also reveal that modal verbs are the most heavily used hedges in the Introduction sections of the NS and NNS corpora. The incidence of nouns in the Introduction section reflects a close similarity between NS (95) and NNS (115). According to the results authors of the articles employed nouns most after the modal verbs. As to adverbs, the overall figures show that the share of this hedge category out of the total number of hedges in Introduction show slight differences in NS (0.48) and in NNS (0.35) corpora.

The Discussion/Conclusion section is where new knowledge is presented and relevant features of experimental method discussed, requiring the writer to justify the techniques used and to qualify the findings produced. Hedges therefore anticipate reader objections and pre-empt challenges to statements, largely by hedging the claims made for methods and results. (Hyland 1998: 154-155)

In the RA data, there was considerable variation in the degree to which Discussion/Conclusion sections were hedged, some noteworthy differences being detectable in both overall incidence and in the frequencies of the different categories of hedges; this may be due to the fact that this section not only involves straightforward presentations of results, but also often contains simultaneous interpretations of the findings and discussions of their interpretations, which is why certain kinds of hedge perhaps more often seen in Discussion/Conclusion sections

The reason why hedges occur frequently in Discussion/Conclusion sections can be linked to the kind of information it encompasses. Hyland (1998: 154) summarizes the motivation for hedging in this section by saying that it is in Discussion/Conclusion sections that authors make their claims, consider the relevance of results and speculate about what they might mean, going beyond their data to offer the more general interpretations by which they gain their academic credibility. The level of generality, and therefore the density of hedges, is much higher here, as writers explore the ramifications of their results. The overall figure in the Table 2 shows that Modal Verbs are considerably the most frequent type of hedge in Discussion/Conclusion section both in NS (247) and NNS (154). This hedging device is followed by Adverbs and Nouns with the incidences of 0.35 and 0.27. The NNS deviation from the NS norm particularly stems from the lower incidence of modal verbs, adverbs and adjectives in the discussion/conclusion section.

4.5 Categories of Hedges in the RA Corpus and Their Analysis

While it is clear that there are numerous ways in which hedging may be realized in English, there are certain evident types of linguistic expression that spring to mind in this respect. As noted earlier, in the work of George Lakoff (1973), hedging was first approached with reference to a relatively limited set of hedges, including lexical items and phrases such as *roughly*, *sort of*, *strictly speaking*, and so on. In the course of time, the concept of hedging has come to be understood more broadly as including a number ways of expressing uncertainty, vagueness, hesitation, and the like, that is, to cover various linguistic manifestations of feelings and thoughts pertaining to limited knowledge or accuracy. From this perspective, then, hedging may be paralleled with qualifications realized by means of elements expressing epistemic modality. Nevertheless, it may be that

when the notions of hedging and epistemic qualification are in question, certain modal auxiliaries and other lexical elements with related meanings are the devices that one almost automatically thinks of. As noted, Hyland (1998: 104) is of the opinion that hedging in academic writing is first and foremost a lexical phenomenon. Whether or not this applies in all disciplines and kinds of academic discourse is not certain, but at least the present results as well as those by Hyland (1998) lead us to believe that the modal auxiliaries—the starting point in many studies into modality in English—and certain other lexical manifestations of epistemic meaning occupy a central position when it comes to hedging and consequently obviously provide a fruitful strategic point in observing hedging in academic language use. Although the modal auxiliaries are not quantitatively speaking the most prominent group of hedges in the RA data and lexical devices are not the only kinds of hedge dealt with, in what follows I will begin by looking into how the modal auxiliaries were used as hedges in the data, to be followed by closer examinations of other lexical hedging phenomena.

4.5.1 Modal Auxiliaries

The modal verbs are verbs that allow the writers to express the tentativeness of the proposition. In the use of the modals, there should be a realisation of a gradation in terms of the strength of the claims made. An area of confusion could be in the choice of the modals with reference to the tense such as *can* and *could*. Both are examples to express possibility in the future, but the use of *can* denotes a slightly more definite possibility. More often than not, the two forms are often seen as interchangeable. The use of the modals as hedges may be realised in perfective forms which express unfulfilled or unrealised actions or events.

The data from the field of social sciences included eight different modal auxiliaries that could be interpreted to express the kind of epistemic meaning useful for hedging, namely *can*, *could*, *may*, *might*, *must*, *should*, *will*, and *would*..

Table 3 shows the shares of modal verbs in the Introduction and the Discussion /Conclusion sections in the NS and the NNS corpora.

Table 3. Categories of Modals in Introduction and Discussion/Conclusion sections in NS and NNS corpora.

	NS				NNS			
	Introduction		Discussion/Conclusion		Introduction		Discussion/Conclusion	
Modal Verbs	f	%	f	%	f	%	f	%
can	48	0.24	93	0.43	58	0.26	60	0.27
may	32	0.16	42	0.19	33	0.15	42	0.19
would	20	0.10	44	0.20	17	0.08	24	0.11
might	12	0.06	18	0.08	3	0.01	12	0.05
will	8	0.04	6	0.03	10	0.36	6	0.03
could	8	0.04	42	0.19	8	0.04	9	0.04
must	1		1		4	0.02		
should	1		1				1	
Total	130	0.66	247	1.13	133	0.92	154	0.69

- a. **Can.** In the articles examined, *can* was the most common modal verb found as a hedge (altogether 259 occurrences in the RA corpus), amounting to nearly half of the modal verbs hedges in the total modal corpus both in NS and NNS.

The following are typical examples of *can* in hedging use in the data.

- 1) While these evaluation reports *can* be used for advocacy purposes, and for insurance to maintain a fluid commitment to applied theatre, they *can* be useful safety checks for both the funding agencies and the commissioned artists to ensure that the needs of all the key stakeholders are being met. (Applied Theatre Research, V:3, 2002)
- 2) It is equally clear that if a test *can* be prepared for, then the test no longer *can* be said to measure general proficiency. (TESL-EJ, V:3, 2001)
- 3) This study suggests that targeted listening strategy instruction in discrete listening, video listening, and note taking *can* improve students' listening comprehension of oral academic content material that they will most likely encounter in their

academic content classes. (BRJ ONLINE, V:29, 2005)

- b. May.** In the RA data considered overall, *may* was the second most frequent modal verb found in hedging use. The use of *may* did not indicate a wild difference when comparing NS (0.35) and NNS (0.34) data in both Introduction and Discussion/Conclusion sections.

The sample sentences of *may* in the data are as follows:

- 1) Thus, they *may* think they are receiving quality translation, when in reality this is not the case. (BRJ Online, V:28, 2004)
- 2) It *may* be claimed that to successfully implement inquiry-based instruction in science classes to enhance science process skills, students need to have higher level reasoning skills. (Gazi University, Journal of Faculty of Education, V:24, 2004)
- 3) There *may* be a lot of factors involved here, some them will be discussed in the sections below. (Dokuz Eylül University, Journal of Social Sciences, V: 2, 2000)

- c. Would.** In the RA data overall, would emerged as the third most common modal verb in hedging use with a total of 105 occurrences in Introduction and Discussion/Conclusion sections of the NS and NNS corpus. The corpus contained quite a few cases of would taken as hedges, the following representing typical occurrences in the RA data:

- 1) It *would* be expected that the major accounting concepts and practices in use in various countries also differ. (Ankara University, Journal of Social Sciences Faculty, V:56, 2001)
- 2) It follows from this distinction that researchers in NLS employing an "ideological" model of literacy *would* find it problematic to simply use the term "literacy" as their unit or object of study. (Current issues in Comparative Education, V:5, 2003)
- 3) While a paper journal could attempt this task, limitations of length, space and time *would* make this a difficult undertaking, as *would* the inherently hermetic nature of many established paper journals. (TESL-EJ, V: 1, 2004)

- d. Might.** In the RA data *might* was the fourth most common modal verb in hedging use. The total number of occurrences is 30 in NS whereas this number shows a

decrease in NNS amounting to a total number of 15. Below are some typical examples of *might* used as hedges:

- 1) The aim is to explore how to support adult learners at diverse levels of competence, tackling a range of different languages, and whose access to computer technology and the most recent textbooks *might* be limited. (TESL-EJ, V: 7, 2003)
- 2) This article looks at how teachers *might* choose some aspects of SLA research to apply in an adult ESL classroom and what information *might* be found in ESL textbooks to help. (TESL-EJ, V: 5, 2002)
- 3) Also future studies might engage front line workers employed in service industries. (Ankara University, Journal of Social Sciences Faculty, V:25, 2005)

e. Will. The modal verb *will* may be used in a wide range of non-epistemic meanings, such as willingness and intention which are not relevant as regards hedging. Whereas its epistemic meanings are characterized as predictability about the present or prediction about future. The examples below are some examples of the use of *will* as hedges:

- 1) In this article we *will* examine them from the point of the pre-Islamic traditional Turkic aspects. (Kayseri University, Journal of Social Sciences, V:1, 2005)
- 2) From a different perspective, exercising intuitive leanings as a leader without knowing the “what” or “why” behind the “how” *will* most likely cause a crisis of confidence at some point. (BRJ Online, V:34, 2005)
- 3) It is hoped that a broad, values based, politicized ESD will help the community, governments and multi-nationals translate the notion of what is contextually an appropriate balance into environmentally, socially and economically just practices. (Current issues in Comparative Education, V:41, 2005)

f. Could. In the RA data overall, *could* emerged with little occurrences in hedging use, with a total of 77 occurrences. The striking use of *could* appeared in Discussion/Conclusion sections of NS corpus, amounting 42 occurrences. The following examples are representatives in the RA data:

- 1) This *could* deliver the best of both worlds: standardized high-quality education with community participation. (BRJ Online, V:20, 2003)

- 2) It *could* be that students in this low score range can benefit more from such instruction than can those at a higher level of ability. (TESL-EJ, V:8, 2001)
- 3) “Racial Assimilation in Secondary Groups” stated that racial assimilation *could* only be feasible among the same colour people from different cultures. (Cukurova University, Journal of Social Sciences, V: 26, 2002)

g. Should. Alongside its other meanings, deontic obligation apparently being the commonest one, *should* is also occasionally used to convey an epistemic meaning. This meaning can be described as a rather extreme likelihood, or a reasonable assumption or conclusion, which implicitly allows for the speaker to be mistaken. Hence, this usage clearly involves the kind of meaning associated with hedging, since it expresses a tentative assumption, an assessment of probability, based on facts known to the speaker.

Hedging as realized by epistemic *should* occurred a total of 3 times in the RA corpus. Below are some typical examples of such cases:

- 1) For this reason, should strain theory be tested, the test must be conducted on street youths and/or the hard-core poor in gecekondu. (Ankara University, Journal of Social Sciences Faculty, V:56, 2001)
- 2) Should people be allowed to build Chinese shopping malls? (TESL-EJ, V:3, 2001)
- 3) Should various classroom intervention methods be applied in order to bring about change in learner's beliefs about language learning, more research is needed in this area. (Kayseri University, Journal of Social Sciences, V:22, 2002)

h. Must. The auxiliary *must* has two characteristic uses, one deontic (obligation) and the other epistemic, the latter being typically described by terms such as “logical necessity”, “epistemic necessity” and “confident inference” (Coates 1983). In view of these characterizations, *must* may be perceived as a hedge where it is used epistemically to draw attention to the idea that in employing the auxiliary, speakers or writers are providing information that is *likely*—not absolutely—true in view of their knowledge and observations.

Instances of *must* in either deontic or epistemic use were infrequent in the RA corpus. The rarity of *must* in epistemic use in scientific discourse has also been observed by Butler (2005) and Hyland (1998). Butler (2005) points out that his data exhibited at least one ambiguous case between the deontic and epistemic meanings of *must*, but in the limited number of occurrences identified in my corpus, no evident ‘mergers’ were found. Altogether six occurrences of the auxiliary were deemed as hedges in the RAs, four of them in the NNS’ RAs, two in NS’s RAs. Below are two examples from the data:

- 1) As this wealth has been obtained, the people must be prosperous. (Ankara University, Journal of Social Sciences Faculty, V:25, 2005)
- 2) Therefore, companies must have found ways to gain advantage over competitors in order to be able to survive in the highly competitive environment. (BRJ Online, V:20, 2003)
- 3) There must be a greater connection between the current research and professional practice. (Current issues in Comparative Education, V:41, 2005)

To summarize the results so far, it can be said that noticeable disciplinary variation in the degree of hedging in the form of modal verbs could be deciphered in my RA data. As Table 4 indicates, the shares of modal verbs in the Introduction and the Discussion /Conclusion section differed in the NS and the NNS corpora. The NS and NNS speakers display slight variations in the use of modal verbs in the introduction section with the total usage indicating almost no difference between two groups. Common to both corpora is the finding that *Can* occurs most frequently no matter what section of the research article is. While there is a slight difference between NS and NNS in the use of this particular hedging device in the introduction section, the difference is seen to be wider in the Discussion/Conclusion section with greater degree to the use of *Can* in the NS corpus.

In Discussion/Conclusion sections, remarkable differences are observed. It is this section of the research articles where the NNS favor less use of modal verbs as hedging devices, with lower degree of hedging in the use of CAN (93), WOULD (24), and COULD (42) respectively. This accounts for the NNS deviation from NS norm, which is clearly seen from the overall frequency of these devices (247-154) in both corpora.

4.5.2 Full Verbs

While auxiliaries are commonly viewed as a central way of producing modal meanings, they are by no means the only devices with such potential. As concerns epistemic modality, it in fact seems that particularly full verbs may often be an even more common exponent of modality than the modal auxiliaries. In the Table 2, hedging by means of epistemic full verbs ranked after modal verbs, adverbs and nouns in the RAs investigated. The use of epistemic full verbs is also advocated in some of the literature intended for the guidance of those engaged in scientifically oriented writing tasks. Of greatest interest from the perspective of hedging are naturally verbs to do with epistemic modality. Items of this kind have been approached in various ways in literature on modality, and it has not always been made clear which specific categories of verbs are useful for hedging purposes. One of the earlier studies into full verbs used as hedges was carried out by Lysvåg (1975), where the main emphasis was on the grammatical characteristics of “hedgers” such as *believe*, *appear*, *assume*, and so on.

In Table 4. full verbs are listed according to their frequency of occurrences used as hedges in the RA data.

Table 4. Categories of Full Verbs in introduction and Discussion/Conclusion Sections in NS and NNS corpora.

	NS				NNS			
	Introduction		Discussion/Conclusion		Introduction		Discussion/Conclusion	
Full Verbs	f	%	f	%	f	%	f	%
Think	13	0.07	5	0.03				
Consider	10	0.05	3	0.02	14	0.06	6	0.03
Feel	8	0.04	9	0.04				
Conclude	5	0.03			4	0.02	4	0.02
Assume	3	0.02			8	0.04		
Believe	3	0.02	3	0.02	7	0.04		
Predict	3	0.02						
Argue	3	0.02			9	0.05	5	0.03
Suggest			5	0.03	8	0.04	18	0.09
Seem			4	0.02	3	0.02	3	0.02
Look			4	0.02				
Expect			3	0.02	3	0.02	3	0.02
Regard					10	0.05	5	0.03
See					10	0.05	3	0.02
Claim					12	0.06	5	0.03
Appear							3	0.02
Total	48	0.27	36	0.20	88	0.45	55	0.31

The table 4 indicates that NNS employ full verbs as hedging device heavily than the NS in both Introduction and Discussion/Conclusion sections. The data reveals that both NS and NNS use full verbs mostly in Introduction section. The total occurrence in the Introduction section amounts to 136, whereas in the Discussion/Conclusion section this number is 91. According to the table 4, it is clear that NNS hedge more in Introduction section (88) while the occurrences of hedges in NS amount to 48 in the same section. This might be taken to indicate that although Introduction section is often presumed to be as concise and economical as possible, NNS authors do deem hedging as necessary in this component of RAs as well when compared with the NS authors. This is indeed quite understandable, granted that RA abstracts may be seen as a discoursal element enhancing the “news value” of the RA (Swales 1990). The distribution of the verbs in terms of usage also differs. Verbs such as *regard*, *see* and *claim* are frequently used by NNS while no occurrences are seen in NS. Typical examples of full verbs used as hedging are given below:

- 1) People consider them as Islamic, while the official Islam prohibits and *regard* them as ‘superstitious’ and ‘false’ or ‘pernicious innovations’, and the Department of Religious Affairs of the State try to inform people about this by publishing books and leaflets, and by organising meetings at which provincial *muftis* discuss these matters. (Dokuz Eylül University, Journal of Social Sciences, V:2, 2003)
- 2) While he does not find it impossible for science to duplicate or imitate human mind, he also states that human mind *seems* to be unique with respect to some qualities that no machine can duplicate. (Cumhuriyet University, Journal of Social Sciences, V: 28, 2004)
- 3) Firstly, Knowles's *claim* that established knowledge and skills have a shorter life span than in the pre-industrial past is overstated. (Kayseri University, Journal of Social Sciences, V:22, 2002)
- 4) The orientalist author Kenneth Cragg says that the Qur'an is *seen* as literal revelation, explicitly communicated in the Arabic language by celestial mediation to the Prophet who is ensured protection from even slips of the tongue. fascinating initiatives that are in place, and working. (Kayseri University, Journal of Social Sciences, V:1 2001)

- 5) It also satisfied the “Generic Skills Learning Outcome” which *suggested* that students ought to “represent her or his skills, knowledge and experience realistically for personal and employment purposes.” (College Quarterly, V:8, 2005)
- 6) They *felt* intimidated by theory, I *think*, and didn't see it [theorizing] as something they did in every day life. (TESL-EJ, V:8, 2004)
- 7) From our reflection on the literature review assignment, we consider that students were generally unfamiliar with the literature review genre, frequently unable to select an appropriate topic, largely unfamiliar with what sources to consult to answer specific questions, and sometimes unable to find the resources they needed. (TESL-EJ, V:2, 2002)
- 8) Some controversy regarding the theoretical position of the organizational identification concept is thought heavily by the researchers in the field. (TESL-EJ, V:9, 2005)

Having presented the results concerning full verbs in hedging use, let us conclude this section by considering certain potential problems involved in the analysis of the above categories and by comparing the results with those from previous work. In the analysis of the modal auxiliaries, certain difficulties of interpretation were encountered due to the indeterminacy of the category, but with the full verbs, the difficulties were few. It is true that certain of the full verbs treated (e.g. *believe*, *consider*, *appear*) may have both modal and non-modal meanings, but the epistemic uses can be distinguished from the other meanings without difficulty. Although there is no significant difference in the numbers of the occurrences of the verbs, a sharp distinction is clearly seen in the selection of some verbs. In the data it is clearly seen that NS used verbs *think* and *feel* 21 times whereas in the NNS data these verbs are not used by the writers. On the other hand when the NNS data were analyzed the heavy use of the verbs *regard* (10), *see* (10) and *claim* (12) is clearly seen. What is more there is no occurrences of these verbs both in Introduction and Discussion/Conclusion sections of the NS data. Hyland (1994) and Varttala (2001) state that there may be various reasons underlying the selection of words in articles such as sex, culture, education and language itself. Hyland (1994) states that the mother tongue of the

researcher may as well play a role in his selection of words. In Introduction and Discussion/Conclusion sections NS employed a total of 84 verbs as hedges; whereas this number is relatively high in NNS data (133). Taking Hyland's view as a yardstick we can say that as Turkish is an SOV language, the use of verbs might be expected to have high frequency as the verbs have an important role in Turkish language.

4.5.3 Adverbs

In addition to modal auxiliaries and full verbs, there are various other ways of expressing modality in English, the kind of epistemic meaning associated with hedging also frequently being expressed by adverbs. As seen at the beginning of this chapter, the general category of adverbs was one of the more frequently identified types of hedging in my RA corpus. There are a number of adverbs that may be employed to produce the kinds of meaning linked to hedging. Apart from the adverbs that have traditionally been treated as *modal*, however, hedging has also been assumed to be realized by other kinds of adverbs indicating restricted truthfulness or limited exactitude such as usually, slightly, almost and occasionally. Examples of adverbs found in hedging use in the corpus are given below in

Table 5. Categories of Adverbs in introduction and Discussion/Conclusion Sections in NS and NNS corpora.

	NS				NNS			
	Introduction		Discussion/Conclusion		Introduction		Discussion/Conclusion	
Adverbs	f	%	f	%	f	%	f	%
Often	21	0.11	18	0.08	3	0.02		
Rather	19	0.1	21	0.1	9	0.04	11	0.07
Just	8	0.04	7	0.03	7	0.04		
Perhaps	5	0.03			4	0.02		
Typically	4	0.02						
Sometimes	3	0.02			4	0.02		
Potentially	3	0.02	4	0.02				
Generally	3	0.02			13	0.06	5	0.02
In fact	3	0.02						
Approximately	3	0.02			4	0.02		
Frequently			4	0.02				
Relatively			4	0.02			8	0.04
Partly			5	0.03				
Quite			7	0.03				
Usually			3	0.02				
Highly					5	0.03		
Significantly					5	0.03		
Wildly					5	0.03		
Almost					3	0.02		
Mainly					4	0.02		
Always							6	0.03
Total	96	0.48	73	0.35	66	0.35	30	0.16

Table 5. reveals that NS employ adverbs (169) much more than NNS (96) both in introduction and Discussion/Conclusion sections. In the RA data it is clear that both NS (96) and NNS (66) preferred to use adverbs in the Introduction section. One reason underlying the singnificance of the number of the occurrences of hedges might be that the Introduction section functions as an invitation for potential readers, where authors presumably wish to provide a concise account of the most important aspects of their work, but nonetheless in a manner that reflects the same requirements imposed upon the authors by the expectations of the scientific community that guide their mode of presentation in the RA itself.

The usage of the hedges as adverbs continued in the NS Discussion/Conclusion section (73) at a relatively steady rate but in NNS the use of adverb there was a sharp decrease (30). In consequence, adverbs found in hedging use in the corpus are here categorized according to their basic potential meaning. Here are some examples of adverbs hedged in the RA data:

- 1) Since knowledge *often* becomes obsolete within a single lifetime, there is little relevant knowledge that a teacher can pass on to students in the course of her career. (TESL-EJ, V:9, 2005)
- 2) *In fact*, they may not even realize that they're learning at all, but the information is more likely to "stick in their minds." (BRJ ONLINE, V:15, 2004)
- 3) *Perhaps* teachers have no distinct intellectual authority in this regard." (College Quarterly, V: 10, 2004)
- 4) As a student with poor self-esteem, she illustrated a profound understanding of her own abilities as a learner and about learning, in general, for those who are *sometimes* identified as "learning disabled".(Applied Theatre Research, V:8, 2004)
- 5) For instance, the study of TESEV (The Economics and Social Studies Foundation of Turkey), conducted in 1999 and published in 2000, clearly demonstrates that the trust in public administration and the satisfaction from the

public services are *significantly* low. (Gazi University, Journal of Faculty of Education, V:18,). 2003)

6) As with teachers, so with the formation of teacher trainers; it is clear that the same process is of value; in this case it is not the case that evaluation should be absent, since professional constraints frequently indicate otherwise, but rather that first should come a *rather* dispassionate observation leading to a more objective joint evaluation, the outcome of a dialogue between professionals, rather than a master instructing an acolyte. (Kayseri University, Journal of Social Sciences, V:12, 2004)

7) If the companies learn how to offer products that can satisfy customers' needs, they are able to survive in *highly* competitive environments. (Ankara University, Journal of Social Sciences Faculty, V:44, 2003)

8) Especially, *almost* half of the respondents have been using CAD and CAM systems. (Dokuz Eylül University, Journal of Social Sciences, V:5, 2004)

To sum up, some noticeable differences in terms of the usages of adverbs in the RA data were detected. The results indicate that NNS employ adverbs less than the NS. The data analyzed reveals some significant aspects of the NS and NNS preference to the use of adverbs. In the data it is clearly seen that the occurrences of *often* and *rather* amounts to 40 while these adverbs are rarely used by NNS (12). Again there is a sharp distinction in the use of adverbs when it comes to the use of *highly*, *significantly*, *wildly*, *almost* and *mainly*. The total occurrences of these dverbs amount to 22 in NNS research articles; whereas the NS did not employ these adverbs in their articles in neither Introduction nor Discussion/Conclusion sections.

In brief, the differences in the incidence and variety of hedges between the research articles in terms of adverbs can be seen as emerging from the effect of different kinds of object of study, the different types of material and method used to study these objects, and the different general nature of the disciplines.

Granted these findings, it is of interest to analyze the use of adjectives whose meaning potential is in many cases quite similar to that of the adverbs dealt with.

4.5.4 Adjectives

As seen at the outset of this chapter, hedges in the form of modal auxiliaries, full verbs, and adverbs covered quite a large share of all hedges identified in the RA corpus, whereas hedging in the form of adjectives was not always quite as common in the RAs. Nevertheless, the data contained a number of adjectives that involve the kind of meaning that may be taken to constitute hedging, many adjectives for instance marking the information presented as uncertain, tentative, or not quite precise, in much the same way as the items—especially adverbs—discussed above. Table 6 gives a clear share of the adjectives used in the RA data.

Table 6. Categories of Adjectives in introduction and Discussion/Conclusion Sections in NS and NNS corpora

Adjectives	NS				NNS			
	Introduction		Discussion/Conclusion		Introduction		Discussion/Conclusion	
	f	%	f	%	f	%	f	%
Possible	5	0.03	12	0.06	15	0.07	10	0.05
Likely	3	0.02	5	0.03	13	0.06		
Primary	6	0.03						
Potential	16	0.08	8	0.04	7	0.04	5	0.03
General	8	0.04	9	0.05	25	0.12		
Common			6	0.03	14	0.06	6	0.03
Total	38	0.20	40	0.21	74	0.35	21	0.11

The use of adjectives in Introduction and Discussion/Conclusion sections of the RAs shows a great variation between NS and NNS. The total amount of adjectives used by NS both in Introduction and Discussion/Conclusion sections is considerably lesser than the NNS. In the Introduction section NS used 38 adjectives while NNS used 74, amounting twice as much as NS. The overall number of the use of Adjectives by NS (78) and NNS (95) puts forth the differences more clearly. The use of adjectives as hedges is exemplified in the sentences retrieved from RA data:

- 1) They are the ones who train teachers of young children who have a vital role for creating the best *possible* environment for young children. (Cumhuriyet Univeristy, Journal of Social Sciences, V: 22, 2005)
- 2) It might be argued that there is a *general* agreement on the need for administrative reform in Turkey. (Kayseri University, Journal of Social Sciences, V:1 2001)
- 3) Corporations in different sectors have similarities and *common* tendencies in logistics functions. (Dokuz Eylül University, Journal of Social Sciences, V:5, 2004)
- 4) Their research findings suggest that the level or corporate financial disclosure regulation in many developed countries is *likely* to be determined more by internal factors whereas that of many developing countries is *likely* to be determined more by external factors. (Çukurova University, Journal of Social Sciences, V: 3, 2000)
- 5) Information-processing theory offers a *possible* explanation for the influence topic has on composing. (TESL-EJ, V:6, 2004)
- 6) Video is explored as medium (digital video camera) and product, and video-making as a process, in light of its *potential* uses in drama and education. (BRJ ONLINE,V:10, 2003)
- 7) These distractions can result in faculty-student disconnection, and we believe that connecting with students is a *primary* component to classroom management. (TESL-EJ, V:4, 2004)
- 8) It is equally clear that if a test can be prepared for, then the test no longer can be said to measure *general* proficiency. (College Quarterly, V: 10, 2004)

The four categories of adjectives studied again manifested some differences in the ways in which RAs may be hedged. As concerns the degree of hedging, Introduction section of the NNS was the most heavily hedged part and again in the NNS the Discussion/Conclusion sections were the least hedged part. As to the other categories, the incidence of adjectives was too low when compared with the other hedging categories.

Variety in the items used as hedges was quite limited. In consequence, out of the 173 different adjectives identified in the RA data, 112 were found in the Introduction section.

4.5.5 Nouns

In the previous sections, I have discussed the hedging use of a variety of verbs, adverbs, and adjectives in the RA data. The last lexical category of hedging devices dealt with is made up of nouns that resemble many of the items discussed above in that they are all characterized by a component of tentative or indefinite meaning that makes them useful for hedging purposes. As a matter of fact, many of these nouns are derived from the full verbs and the adjectives discussed above. In Table 7, there are examples of nouns used as hedges in the sentences from RA data:

Table 7. Categories of Nouns in introduction and Discussion/Conclusion Sections in NS and NNS corpora.

Nouns	NS				NNS			
	Introduction		Discussion/Conclusion		Introduction		Discussion/Conclusion	
	f	%	f	%	f	%	f	%
Theory	24	0.12	17	0.08	6	0.03	20	0.12
Approach	16	0.08	20	0.09	17	0.08	11	0.07
Assessment	16	0.08						
Potential	16	0.08	8	0.04	7	0.04	5	0.03
Concept	9	0.05	3	0.02	21	0.09	11	0.07
Idea	7	0.04	4	0.02	13	0.06	10	0.06
Argument	4	0.02			5	0.02	4	0.02
Assumption	3	0.02					3	0.02
Belief			4	0.02			9	0.05
View			3	0.02	24	0.11	16	0.1
Hypothesis					14	0.06		
Expectation					4	0.02		
Claim					4	0.02	6	0.03
Perception							6	0.03
Total	95	0.49	59	0.27	115	0.53	101	0.51

In the Table 7, the use of nouns as hedges is distributed evenly except the Discussion/Conclusion section of the NS. The distribution is nearly the same in NNS in terms of Introduction and Discussion/Conclusion section. Total occurrences of hedges in these sections are 216 but in NS the number decreases sharply to 154. NS preferred to use nouns as hedges heavily in the Introduction section with a number of 95 occurrences; yet in the Discussion/Conclusion section the use of nouns recedes to 59. In the sentences below, there are examples of nouns used as hedges in the RA data:

- 1) In this regard, this study will be the first study that tests a sociological *theory* of juvenile delinquency, strain *theory*. (Ankara University, Journal of Social Sciences Faculty, V:30, 2002)
- 2) In this paper, firstly the differences between race and ethnicity were dealt with then important theoretical *approaches* to ethnicity were criticised. (Çukurova University, Journal of Social Sciences, V: 2, 2004)
- 3) The first section of this study briefly examines *views* of Turkish political parties on Turkey's EU membership bid. (Gazi University, Journal of Faculty of Education, V:18, 2003)
- 4) This article aims to bring out negative externalities brought by popular emancipation of the *assumption*, which believes that "destruction of the general codes expands individual freedom" not by referring to deontological understanding in order to depict new categorical imperatives, but rather by putting emphasis on the idea of individual freedom through axiological understanding. (Dokuz Eylül University, Journal of Social Sciences, V: 4, 2004)
- 5) There are many *ways* in which teachers or facilitators and their students interact is already a social practice that affects the nature of the literacy being learned and the ideas about literacy held by the participants, especially the new learners and their position in relations of power. (College Quarterly, V: 14, 2004)
- 6) This article argues that an understanding of social entrepreneurship and how it manifests itself in education needs to embody a *concept* of social justice. (BRJ ONLINE, V:10, 2003)
- 7) For example, second or foreign language students may hold strong beliefs about the nature of the language under study. (TESL-EJ, V:8, 2005)

8) There are interactive websites, television and radio programmes in which viewers are encouraged to call with suggestions, points of *views*, etc. (BRJ ONLINE, V: 15, 2004)

The results on the hedging use of nouns also illustrated some important differences in the RA data. The selection of words is at some points in harmony with NS and NNS whereas some words such as *hypothesis*, *expectation*, *claim* and *perception* were never detected in NS corpora. Furthermore, the uses of the adjectives *view* and *concept* display an important aspect as to the use of adjectives in NS and NNS corpus. 15 occurrences of these adjectives are detected in the data whereas, the occurrences of these adjectives amount to 72 in NNS corpus. As Hyland (1994) and Varttala (2001) state the significant differences of the use of adjectives can be described in broader terms ranging from age, culture, gender and mother tongue of the researcher(s). What is more the differences in the incidence and variety of hedges between the research articles can be seen as stemming from the different kinds of object of study, the different types of material and method used to study these objects, and the different general nature of the disciplines.

CHAPTER 5

CONCLUSION

5.1 Introduction

The primary objective of the present thesis is to explore the use of hedges in research articles by Turkish inter-language speakers of English and native English speakers in the field of social sciences. The motive behind the present contrastive thesis is to find out to what extent the academic discourse employed in native and non-native research articles display variation in terms of the occurrence, type and functions of hedges.

5.2 Evaluation of the Research Questions

The findings demonstrate that although both the NS and NNS use approximately the same linguistic means of expressing epistemic modality, some differences were observed in terms of both quantity and quality. In general, the NNS displayed preference for nouns (216) and verbs (143) and modal verbs (287) to neglect of adverbs (96) and adjectives (95) in their articles. Hyland (1994) and Varttala (2001) state that there may be various reasons underlying the selection of words in articles such as sex, culture, education and language itself. Hyland (1994) states that the mother tongue of the researcher may as well play a role in his selection of words. Thus, the heavy use of nouns, modal auxiliaries and full verbs by NNS might be the effect of Turkish language in general.

According to the data, it is clear that NNS employed hedges more in Introduction section while NS hedge in Discussion and Conclusion section. This might be taken to indicate that although Introduction section is often presumed to be as concise and economical as possible, authors do deem hedging as necessary in this component of RAs as well. One reason underlying the singnificance of the number of the occurrences of hedges might be that the Introduction section functions as an invitation for potential readers, where authors presumably wish to provide a concise account of the most important aspects of their work, but nonetheless in a manner that reflects the same requirements imposed upon the authors by the expectations of the scientific community that guide their mode of presentation in the RA itself.

The differences of NS and NNS performances in their academic writings can be explained in terms of teaching writing skills as a part of ESP curriculum. When the syllabus of the Universities in Britain and United States in Language Teaching Department is examined, it is seen that there academic writing classes in most of which hedging is studied.(Oxford Uni., Cambridge Uni., Berkeley Uni. etc.) Thus, the British and American education systems are more geared to the development of writing skills which presupposes the academic production of large number of textbooks and other kinds of teaching materials for all levels; teaching writing, including academic writing. But few Universities in Turkey appear to have academic writing in their syllabus.

Another possible explanation for this difference between NS and NNS might be due to the nature of Turkish culture which is more of an oral nature than of written one as regards to most types of interpersonal communication.

In the light of the present findings, two major conclusions can be formulated to motivate the importance of variation-oriented research into the rhetoric of special-subject discourse. First, it appears that the topics researched, the materials and methods employed, and the research traditions of the disciplines may have an effect on the degree, type and motivations of hedging in discourse like RAs. In consequence, in-depth investigations of rhetorical strategies like hedging in RAs should give due attention to the characteristics of the discipline scrutinized when considering to what extent and for what purposes hedges are employed.

Second, while hedges have a variety of observed uses in scientific peer discourse such as RAs, this does not automatically mean that since similar cases of hedging might not be absolutely necessary in other fields. In other words, research should take into account the multifunctional nature of hedging phenomena and the possibility that hedges may indeed figure quite commonly in popularizations, only in uses somewhat different from those seen in RAs.

5.3 Implications for English Language Teaching

Clearly the ability to hedge statements appropriately is essential to effective communication and therefore to academic success. There is a clear need for subject lectures to provide written work which varies both purpose and audience. ESP teachers need to move beyond a view that scientific writing is simply detached and factual and the idea that hedges are merely conventions of an academic culture.

Unfortunately few published ESP courses discuss interpersonal aspects of writing and it is still rare for students to be taught explicitly about hedging. ESP materials are almost universally weak in this area and provide inadequate information and explanations which misrepresent the importance of both the concept and different devices.

ESP teachers and materials writers have to acknowledge the importance of hedging and ensure students recognise this importance. Once again, we need to focus students on audience needs, particularly the degree of precision, caution and deference expected, by encouraging authentic writing tasks and the evaluation and manipulation of model texts.

Finally, we must look towards applied linguistics for analyses of hedges and their role in genre construction. A major reason why students do not get systematic training in the use of hedges is because we lack empirical information about the rules of various speech communities. Much of the attention given to hedging has been theoretical, refining conceptual distinctions by focusing on intuitive and decontextualised examples. Corpus studies, on the other hand, have either included a heterogeneous range of registers, or have centred on descriptions of spoken discourse or modal verbs. What are urgently needed are explanatory and descriptive accounts of the use of hedging in different registers based on analyses of authentic written sources.

5.4 Implications for Further Studies

Earlier studies of hedging in subject-specific discourse have often been motivated by the implications that such research might have for the instruction of scholarly discourse to both native and nonnative speakers of English. More often than not, studies have stressed the importance of giving more attention to teaching hedging techniques to future or practicing scholars. Some studies (e.g. Hyland 1994, Salager-Meyer 1994) suggest that

teaching should put more emphasis on the use of hedging elements in specialist discourse such as the research articles here.

The results concerning the use of hedges in the subject fields and the research articles examined give rise to the idea that in considering the use of hedges in special subject discourse, due attention is to be given to the rhetorical situation dealt with.

In addition, given the noticeable differences in hedging, it is equally to be presumed that variation yet unaccounted for might apply to various other linguistic features in special-subject discourse. In consequence, the variability of rhetorical situations and the resultant effects on different linguistic phenomena would in all likelihood deserve further attention in future work.

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APPENDICES

APPENDIX I

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Ö Z G E Ç M İ Ş

KİŞİSEL BİLGİLER

ADI SOYADI :Zekeriya HAMAMCI
DOĞUM YERİ-YILI :ANTAKYA, 1977
EV ADRESİ: 75. Yıl Bulvarı. Ürgenpaşa Mah. Toprak Apt. 3/10 Antakya
EV TELEFONU: 0326 227 47 92
E - MAIL: zekeriyahamamci@yahoo.com
DOĞUM TARİHİ: 20 Ocak 1977
MEDENİ HALİ: Evli
UYRUK: T.C.

EĞİTİM DURUMU

2004-2007 Yüksek Lisans Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, İngiliz Dili ve Eğitimi Ana Bilim Dalı
1996-2000 Lisans Ankara Üniversitesi Dil ve Tarih Coğrafya Fakültesi, İngiliz Dili ve Edebiyatı, Ankara
1988-1995 Lise Hatay Osman Ötken Anadolu Lisesi, Antakya

İŞ TECRÜBELERİ

Eylül 2003 Bil-Dil İngilizce ve Bilgisayar Kursları, Hatay, İngilizce Öğretmeni
Ocak 2002 Optimum Tıbbi İlaç Araştırma Organizasyon Eğitim Danışmanlık Ticaret Ltd. Şti., Ankara
 Proje Yöneticisi ve Çevirmen
Ekim 2001 Optimum Tıbbi İlaç Araştırma Organizasyon Eğitim

Danışmanlık Ticaret Ltd. Şti.; Ankara
Proje Yöneticisi Asistanı ve Çevirmen

- Ağustos 2001** Optimum Tıbbi İlaç Araştırma Organizasyon Eğitim
Danışmanlık Ticaret Ltd. Şti., Ankara
Klinik Monitör ve Çevirmen
- Şubat 2000 – Temmuz 2000** Aynur Parlar Avukatlık Bürosu, Ankara
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- Ekim 1999– Temmuz 2000** Ankara Üniversitesi TÖMER Dil Kursları, Ankara
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- Haziran 1999– Eylül 1999** Bil-Dil İngilizce Kursları, Hatay
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YABANCI DİL VE BİLGİSAYAR

Yabancı Dil: İngilizce –İleri düzey
Almanca -Konuşma Seviyesi

KURSLAR

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- Kasım 2001** Novartis “Standard Operating Procedures” Eğitimi, İstanbul
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- Eylül 2001** Pfizer SÇY Eğitimi, İstanbul
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Raporlama Eğitim Kursu

Ağustos 2001	AstraZeneca SOP Training, Istanbul AstraZeneca Standart Çalışma Yöntemleri ve Ciddi Advers Olay Raporlama Eğitim Kursu
Ağustos 2001	Optimum Tıbbi İlaç Araştırma Organizasyon Eğitim Danışmanlık Ticaret Ltd. Şti., Ankara İyi Klinik Uygulamalar ve monitorizasyon Eğitimi Optimum Standart Çalışma Yöntemleri Eğitimi
Şubat - Nisan 2000	Ankara Üniversitesi, Dil ve Tarih Coğrafya Fakültesi, Bilgisayar Sertifikası
Şubat-Haziran 1999	Ankara Üniversitesi Bankacılık Okulu Dış Ticaret sertifika Programı

YAYINLAR

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