

The Use of Hedging Devices in Scientific Text An Analysis of Some Theses and Dissertations

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١. Introduction

١.١. The Problem

The term "Hedging" was first introduced by Lakoff (١٩٧٢) to describe words whose job is to make things more opaque. It mainly represents the absence of certainty. Hence it is an important strategy to be used in scientific writings in order to lessen the commitment of introducing theories and conclusions. To the best of our knowledge, there is no study conducted about the use of hedges in scientific texts written by Iraqi EFL scholars. We are still unaware of the type of hedges these scholars employ in their writings and what functions they intend to achieve behind using such devices.

١.٢. **The Objectives** This study tries to fulfill the following objectives:

١. Investigating the types of hedges used in scientific texts written by Iraqi EFL scholars.
٢. Identifying the functions achieved by Iraqi EFL scholars when using such devices when writing in English.

١.٣. **The Hypotheses** This study hypothesizes that:

١. Lexical hedges are used more than other types of hedges by Iraqi EFL scholars when writing in English.
٢. Uncertainty is intended to be realized in scientific texts written by Iraqi EFL scholars more than other functions of hedging.

١.٤. **The Procedures** The Procedures followed in achieving the objectives of this study are as follows:

١. Presenting a theoretical background about the strategy of hedging by providing some definitions as well as identifying its different types and the functions hedging fulfill in scientific writings.
٢. Analyzing hedges in some selected scientific texts written by Iraqi EFL scholars to find out the (a) types of hedges used in such writings; and (b) functions they are used to fulfill.

٣. Discussing the results of the analysis to reach some conclusions.

١,٥ **Limits of the Study** The sample to be analyzed in this study will comprise five M.A. theses and five Ph.D. dissertations in Linguistics written by Iraqi EFL scholars.

١,٦ **The Significance** It is hoped that our study will be of some value to FFL textbook writers, students, teachers as well as syllabus designers since it provides some information about hedging with its different types and functions.

٢. A Theoretical Background

٢,١. **Some Definitions of Hedging** Although there are a number of definitions for the term “Hedging” but only the basic ones will be stated here. This term was introduced by Lakoff (١٩٧٢:١٩٥) as a means for indicating in what sense a member belongs to a particular category (Rutledge Dictionary, ١٩٩٦). David (٢٠٠٨) and Jack (١٩٩٥), on the other hand, describe hedging as an application in pragmatic and discourse analysis in the general sense of the word to a range of items which express a notion of imprecision or qualification. Writers use this item either to indicate their (a) lack of commitment to the truth of a statement or (b) desire not to express that commitment categorically.

٢,٢ English hedges

Lakoff (١٩٧٢: ١٩٥) suggests that a limit truth conditions will distort the natural language concepts by having short defined boundaries. He was interested in studying words whose job is to make things fuzzier or less fuzzy. In addition, Lakoff was interested in the properties of words rather than in the communicative value of the use of hedges. He began with a semantic discussion of *sort of* then he studied propositional hedges like *typically, strictly speaking ...etc.* It is clear that Lakoff was interested in hedges not hedging. He showed that the interpretation of hedges was dependent on context and the effect of hedging was pragmatic not semantic. (Fraser, ٢٠٠٧: ١٧). A Hedged sentence, when uttered, often contains a comment on itself or on its utterance or some part thereof, for example, when someone says: *Loosely speaking*, France is hexagonal; part of what they have uttered is a certain kind of comment on the locution France is hexagonal. (Horn and Ward, ٢٠٠٤: ٦٩٠)

٢. ٢. ١. **Single Hedges** There are different kinds of hedges, some of which are listed below:

1. *Impersonal pronoun* (one, it...)

_One just doesn't do that. (Fraser, 2010: 22)

2. *Concessive conjunctions* (although, though, while, whereas, even though, even if...)

_Even though you dislike the beach, it's worth going for view. (Ibid)

3. *Hedged performative*: are speaker-orientated markers which merely comment on the speech acts that immediately follow. These markers most frequently hedge face-threatening acts. They contribute towards a higher degree of politeness in several ways. They serve a linguistic means which signals the illocutionary goal of the speaker, giving the hearer time to adjust and shape his/her answer.

_I must ask you to sit down (Burce Fraser, 2007: 204)

4. *Indirect speech acts*

_Could you speak a little louder. (Ibid)

5. *Introductory phrases* (I believe, to our knowledge, it is our view that, we feel that...) which express the author's personal doubt and direct involvement.

_ We believe that the chronic fatigue syndrome reflects a complex interaction of several factors. There is no simple explanation. (Salager-Mayer, 1990: 127-143)

6. *Modal adverbs* (perhaps, possibly, probably, presumably)

_ I can possibly do that.

7. *Modal adjectives* (possible, probable, unlikely)

_It is possible that there is no water in the well.

8. *Modal nouns* (assumption, claim, possibility, estimate, suggestion...)

_ The assumption that you are going to go. (Fraser, 2007: 205)

9. *Modal verbs* are the most straightforward and widely used means of expressing modality in English academic writing which in turn entails the meaning of hedging. The most tentative ones are: *may, might, can, could, would, and should*.

_ Such measure might be more sensitive to change in health after special treatment. (Salager-Mayer, 1990: 127-143)

10. *Epistemic verbs* (used to perform acts such as doubting and evaluating rather than merely describing of varying degree of illocutionary force: to seem, to appear, to believe, to assume, to suggest, to estimate, to tend, to think, to argue, to indicate, to

propose, to speculate).

_ I think that Harry is coming (Brown and Levinson, ١٩٧٨: ١٥٠).

١١. **Negation** _ Didn't Harry leave?

١٢. **Reversal tag** _ Do me a favor, will you? (Laurence R.H and Ward, ٢٠٠٤, ٤١٤)

١٣. **Parenthetical construction** _ The picnic is here, I guess.

١٤. **If clause** _ If true, we're in deep trouble.

١٥. **Agent less passive** _ Many of the troops were injured. (By)

١٦. **Conditional subordinations** (as long as, so long as, assuming that, given that...) _

Unless the strike has been called off, there will be retrains tomorrow.

١٧. **Progressive form** _ I am hoping you will come.

١٨. **Tentative inferences**: are pragmatic markers which are similar to subjective markers contributing a great degree of politeness by conveying hesitation, uncertainty or vagueness, however; the way the researchers explore them differs from that of subjective markers. _ The mountains should be visible from here.

١٩. **Conditional clauses implying permit ion** (if you don't mind my saying so, if I may do) _ If you don't mind my saying so, you are too lazy.

٢٠. **Conditional clause expressing uncertainty about the extra linguistic knowledge required for a correct interpretation of the utterance** (if I am correct, in case you don't remember)_ Chomsky views cannot be reconciled with piglet, if I understand him correctly. (Fraser, ٢٠٠٧:٢٠٥)

٢١. **Meta linguistic comment** such as (strictly speaking, so to say, exactly, almost, just about, if you will. (Fraser, ٢٠٠٧: ٢٠٥) _ Strictly speaking, Sacco and Vanzetti were murders.(Horn and Ward, ٢٠٠٤:٦٩١)

٢٢. **Approximators of degree, quantity, frequency, and time**: approximately, roughly, about, often, occasionally, generally, usually, somewhat, a lot of.

_Fever is present in about a third of cases and sometimes there is neutropnia. (Salager-Mayer, ١٩٩٥: ١٢٧-١٤٣)

٢. ٢. ٢. **Multiple Use of Hedging Devices** Salager-Mayer (١٩٩٥) indicates compound hedging devices which include the following common cases among others:

١. **Modal with hedging verb**

_ It would appear that... (Fraser, ٢٠٠٧: ٢٠٥)

٢. *Hedging verb with hedging adverb/ adjective* where the adverb or (adjective) reinforce the hedge already inherent in the hedging verb.

_ It seem reasonable/ probable that ...

٣. *Double hedges*

_ I may suggest that this probably indicates...

٤. *Treble hedges*

_ It seems reasonable to assume that... (Ibid)

٥. *Quadruple hedges*

_ It would seem somewhat unlikely that it may appear somewhat speculative that ... (Ibid, ٢٠٦) We can say that above list doesn't capture all the devices of English hedges also a given device is not always used for hedging.

٢,٣ Functions of Hedging in Scientific Writings

Basically, hedges in academic writings signal writers' anticipation of the possibility of opposition to his or her statements. According to Fraser (٢٠٠٧: ٢٠٦) hedges serve three main functions in achieving reader acceptance of claims:

First hedge allow writers to express propositions with greater precision in areas often characterized by reformulation and reinterpretation. Readers are expected to understand that the proposition is true as far as can be determined. The second reason concerns the writers desire to anticipate possible negative consequence of being proved wrong. Hedges here help writers avoid personal responsibility for statements in order to keep their reputations and avoid damage that may happen because of categorical commitments. Finally Salager-Mayer (١٩٩٥: ١٢٧-١٤٣) agrees with Bruce about the idea that hedges contribute to the development of the relationship between the reader to conform an established style a totally unhedged style will not be considered by journal editors.

٣. The Empirical Work

٣,١. Results

The results of the empirical work after analyzing the samples of the text are summarized in Table (١) below (Notice that the devices are arranged in this Table according to frequency of use from the highest to the lowest)

Table (١) Summary of the results in frequency and percentage of English hedges

No	Device	Frequency	Percentage
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١	Epistemic Verbs	٢٤	٢٣,٣
٢	Modal Verbs	٢١	٢٠,٣
٣	Introductory Phrases	١٩	١٨,٤
٤	Modal Adjectives	١٨	١٧,٤
٥	Approximators	٩	٨,٨
٦	Impersonal Pronoun	٣	٢,٩
٧	Modal Adverbs	٣	٢,٩
٨	Concessive Conjunctions	٢	١,٩
٩	Double Hedges	٢	١,٩
١٠	Treble Hedges	٢	١,٩
١١	If Claus	١	٠,٣
١٢	Agent less Passive	١	٠,٣
١٣	Met linguistic Comments	١	٠,٣
Total		١٠٣	١٠٠

Table (٢) Summary of the result in frequency and percentage of English hedges in PH.D. Dissertations

NO	Device	Frequency	Percentage
١	Epistemic Verbs	١١	٢٠,٣
٢	Modal Verbs	١٢	٢٢,١
٣	Introductory Phrases	١٣	٢٤
٤	Modal Adjectives	٦	١١,١
٥	Approximators	٣	٥,٧
٦	Impersonal Pronoun	٣	٥,٧
٧	Modal Adverbs	٣	٥,٧
٨	Concessive Conjunctions	١	١,٨
٩	Double Hedges	١	١,٨
١٠	If Claus	١	١,٨
Total		٥٤	١٠٠

٣,٢ The Discussion

Among the twenty three types of hedges mentioned in this study, only thirteen devices are used by our subjects (see Table ١). in PH.D. dissertation and are used and eleven devices in M.A. theses. In the sample of our empirical work, the most frequent used device of hedging is the epistemic verbs. It amount to eleven in PH.D. dissertations and thirteen in M.A. theses. These verbs appear to be frequent in scientific writings. Also modal verbs are used heavily in the scientific writings. They occur twelve times

in PH.D. dissertation and nine in M.A. theses. Scientific writers make less use of modal adjectives which occur six times in PH.D. dissertation twelve times in M.A. theses. Introductory phrases appear to be more frequent in scientific writings than the modal adjectives.

Table (٢) Summary of the result in frequency and percentage of English hedges in M.A. theses

No	Device	Frequency	Percentage
١	Epistemic Verbs	١٣	٢٦,٥
٢	Modal Verbs	٩	١٨,٣
٣	Introductory Phrases	٦	١٢,٣
٤	Modal Adjectives	١٢	٢٤,٤
٥	Approximators	٤	٨,٣
٨	Concessive Conjunctions	١	٢,٠٤
٩	Double Hedges	١	٢,٠٤
١٠	Treble Hedges	٢	٤,٠٨
١١	If Claus	١	٢,٠٤
Total		٤٩	١٠٠

They occur thirteen times in PH.D. dissertation and six times in M.A. theses. Then the Approximators of degree, quantity, frequency, and time are used three times in PH.D. dissertations and four times in M.A. theses. Other devices are used rarely. Such as concessive conjunction, double hedges, treble hedges and the like. In general English hedges are used to convey a safe statement, evading the impression of being too confident, to express possibility, to do self protection, to appear modest, and to express uncertainty. Some of the English hedges are never used because such devices do not seem to fulfill the idea that the scientific writers intended to convey. So that the results that we achieved contradict with the first hypothesis which says that lexical hedges are used more than other types of hedges.

٤. The conclusions

١. Hedging is a means by which one is able to negotiate the ratification of his statement.
٢. Hedging has different strategies to reflect doubt, uncertainty, skepticism, fuzziness and neutrality. It seems that the real motive to use hedging device is to make statements vaguer.

٣. The empirical work of this study reveals that some devices are used more than others to express hedging and the most frequently used ones are the epistemic verbs and modal verbs
٤. It could be concluded that certain topics require the writer to hedge more than other ones so that hedges are not used equally by the writers.

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