A PRAGMATIC STUDY OF WEATHER FORECASTING REPORTS

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ABSTRACT: *Weather forecasting is an application for predicting the condition of the atmosphere for a given location; such predictions are based on scientific resources and measurements i.e. factual information. However, these predictions are still assumptions, or forecasting, and therefore changeable. Hence, weather forecasters use different strategies to control the certainty of these predictions and mitigate the accuracy of their forecasting. In spite of the importance of this genre and the type of language exploited in it, it has not received enough research work attention, particularly from a pragmatic point of view. This has prompted this study to carry out such a kind of research work in an attempt to shed light on the main pragmatic aspects utilized in weather forecasting reports. Precisely, the study attempts to answer the question: what are the pragmatic aspects that characterize weather forecasting reports? In other words, the current study aims at finding out the pragmatic aspects exploited by weather forecasters and how these aspects help them control the accuracy of their reports. In accordance with these aims, it is hypothesized that weather forecasting reports, though based on scientific measurements are still changeable assumptions about the future (i.e. predictions). This entails that the forecasters use certain pragmatic techniques to avoid being committed to the accuracy of these predictions. In order to achieve the aims and verifying or rejecting the hypothesis, a model is developed for the analysis of data under scrutiny. Additionally, a statistical analysis is conducted via means of the percentage equation to quantitative support the findings of the pragmatic analysis. The most important findings yielded by those analyses reveal that the main pragmatic aspects utilized in weather forecasting reports are speech acts, presupposition, scalar implicature and hedging, and that predictions are global speech acts in weather forecasting.*

KEYWORDS: Weather forecasting reports, pragmatic aspects, speech acts, presupposition, scalar implicature, hedges.

INTRODUCTION

Weather information is presented to the public throughout different varieties of media, the commonest of which are television and radio, wherein quality demands are placed on the presenter. Weather -forecaster, when presenting weather condition, is faced with the challenge of dealing with meteorological information with a kind of non-scientific and unusual way. The language used must be attention inspiring and accurate as it is built on a scientific base. The challenge mentioned above occurs within the area of pragmatics. According to Leech (1983), pragmatics is a discipline investigating the way people use language gracefully in communication, and can be defined as "a theory of appropriateness" whose interest is not in language itself. Rather, it resides in what people can do with language, i.e. language use, and users.

Hence, the current study attempts to establish a pure pragmatic perspective of different pragmatic issues manifested in weather forecasting report news and how forecasters make use of the appropriate pragmatic aspects to reach the aim of weather forecasting. Besides, it aims to develop a model for the analysis of data under investigating. To achieve these aims, three weather forecasting reports will be pragmatically analyzed on the basis of the model developed. Besides, the findings of the pragmatic analysis will be statistically calculated by means of the percentage equation to quantitatively support them.

Weather Forecasting: A Historical Background

Weather forecasting can be defined as predicting the atmosphere for a given location by means of applications of science and technology. In fact, attempts to predict weather have been made formally since the 19th c. On August 1861, *The Times* published the first daily weather forecastings (Web source NO.1). The Met Office, in 1911, began broadcasting the first weather forecasts via radio transmission. They included warnings of gale and storms in areas of Great Britain. In 1925, radio forecasts were first introduced by Edward B in the United States. Weather forecasts in television started to develop by including assisting means such as weather maps which were used first in televised forecasts by BBC in 1936 (ibid). As for weather broadcasting in America, it seems that James C Fidler was the first to introduce a televised weather forecast in 1954 and, in the early 1980s, John Coleman pioneered presenting forecasts by using the on-screen weather satellite information and computer graphics on ABC (Hunt, 2007: 143-146).

The Language of Meteorology and Everyday Communication

Meteorology language is a language of science. It makes use of tightly defined terminologies where the meaning is crystal clear to those within the same profession. This kind of scientific language is dense, exact and often requires reasoning and reflection. That is why when scientists converse with each other, they do so in a manner that assumes a common base of understanding between speaker and listener (Fleming, 2005: 11).

Using Television and radio as a media of communication from one person to many encompasses an entire range of different interests and understandings. Some will be enthusiastically attentive to the message, while others may see the forecast presentation as no more than a background to some other interest. The language used then must address all those who are attentive and those who are apathetic (ibid). The challenge of presenting weather information, especially on TV, which is an inherently busy and cluttered medium, is that the presenters are faced with the task of looking at scientific or meteorological information in a rather easy comprehended way. The language used must be precise, subtle as well as attract attention.

A Weather Forecast or Report?

A *weather forecast* is a presentation of what weather conditions will be it is given before the date in question, for instance, one or two weeks in advance. A weather report, on the other hand, can only be given for a past period and it gives the actual weather conditions that have already occurred. (Web source NO. 2).

Throughout the study, the term *"weather forecast report"* is better to be used than separating it to *"forecasting"* and *"reporting"*. Because the data consisted from both *forecasting* predictions about weather, as well as *reporting* and comparing these predictions with past periods to give the actual weather conditions.

Weather forecast reporting is associated with certain pragmatic aspects and these aspects will be introduced and elaborated in the following sections.

The paper investigates the main pragmatic aspects exploited in presenting weather forecast reporting. This requires having pragmatic issues, (such as the speech act theory, presupposition, scalar implicatures and hedging), to be illustrated.

Speech Act Theory

The theory was introduced by J. L. Austin in 1962. The theory is based on the idea that *"saying is part of doing".* In producing an utterance, the interlocutors are engaging in: (1) A locutionary act; the act of producing sounds and words with their referential meaning. (2) An illocutionary act is the meaning one wish to communicate, such as make a bid, requesting some information, promising, threatening and the like. (3) perlocutions acts are the effect on the hearer. A hearer, for example, may be: shocked, surprised, upset, pleased, bored, frightened, etc.

Searle (1969: 65) working on Austin's theory, distinguishes five major classes of speech acts; each constitutes a host of other sub-acts which can be distinguished from each other by their felicity conditions. These include:

(1) Representatives or assertives: they make a hearer committed to a proposition; "it is to present the proposition as representing a state of affairs in the world" (Searle, 1999:148) and thereby they have a "word- to- world" fit. They include *assert, insist, announce, state, conclude, report, predict.*

(2) Expressives: they express the speaker's psychological or emotional state, they have a "world- to- word" fit. They include: *congratulate, thank, welcome, apologize*, *pleasure.*

(3) Directives: they direct the hearer to do something; thereby they are "world- to- word" fit, such as*: instructing, advising, suggesting, challenging, daring, and commanding.*

(4) Commissives: these are acts which commit the speakers to some future courses of action. They have "world- to- word" fit, like: *promise, vow, swear, threaten, and offer.*

(5) Declaratives: they are speech acts which are about a state of affairs, like*: marrying, naming, blessing, arresting*.

There are certain expected or appropriate circumstances which must be satisfied or met if the speech act is said to achieve its purpose, technically these are known as ***felicity conditions***. Searle (1969: 24) has introduced the following felicity conditions:

1*: Propositional content condition*: the condition is related to the propositional content of the illocutionary force. Promises, for instance, require specification of future action.

2: *Preparatory condition*s: they are related with interlocutors and their social status, the speaker, for example, has the authority to do the act.

3: *Sincerity condition*: the speaker has the beliefs that his utterance is true and aims to do what is proposed by that utterance.

4: *Essential condition*: producing the utterance counts as an obligation to do what is proposed (Searle 1969:63).

Presupposition

Presupposition refers to the implicit information of proposition embedded in a sentence or utterance. Stalnaker (1973:447) has explained the concept of presupposition as:

"A person's presuppositions are the propositions whose truth he takes for granted . . . in a conversation . . . They are the background assumptions that may be used without being spoken."

Presupposition has been correlated with the use of a large number of words and phrases as well as structures. Linguists have isolated a number of linguistic constructions which have been identified as sources generating presuppositions known as *"presupposition or lexical triggers"*. In other words, the term 'triggers' is used to refer to those "presupposition-generating linguistic items", (Levinson, 1983: 179), i.e., the existence of presupposition is signaled by a construction or item known as *"presupposition trigger"*. A presupposition is something believed to be true by the speaker prior to making an utterance. As asserted by Yule (1996: 25) "Speakers, not sentences, have presuppositions". Yule (ibid: 28) categorizes presuppositions into six types: (1) existential (2) structural (3) lexical (4) factive (5) non-factive and (6) counter-factual, which form the core of the phenomenon.

The presupposition triggers adopted in this study are those based on Karttunen (cited from Levinson, 1983) and Yule (1996). They are categorized into the following three types: existential (definite descriptions), lexical (change of state verbs and iteratives); and structural (Wh-questions, and counter factual conditionals).

Scalar Implicature (SI)

Grice (1989: 37) distinguishes between *generalized* conversational implicatures (GCI) and *particularized* conversational implicatures (PCI). Grice (1975: 314) points out that (GCI) is normally carried by "the use of certain form of words in an utterance" in the absence of special circumstances, and, thus, it is unlike (PCI) which "is carried by saying that P on a particular occasion in virtue of special features of the context".

Scalar implicatures (SI) are one type of generalized conversational implicature (GCI). *Scalar implicatures* are *quantity implicatures* and their derivation is due to Grice's (1975) first maxim of quantity, which says "make your contribution as information as is required for the current purpose of the exchange".

Quantity implicature has been defined by Levinson (1983) in a way that presumes relevance then identifies the paucity of the speaker's knowledge as the main deriving force behind implicature:

A. the speaker S has said a proposition *p*

B. the expression *q* is more informative than *p*, which might be appropriate contribution to the current exchange (maxim of Relevance).

C. *q* is roughly equal *p*; so S did not say *p* in order to be brief (maxim of Manner)

D. Since S knew that q holds but nevertheless uttered p, (s)he would be in breach of quantity maxim. S drives the addressee to infer that S knows that q is not the case, or that S does not know that q is the case.

The American linguist, Laurence Horn was the first to point out the sets of scalar expressions, or scalar predicates, as Levinson (1983) calls them, here are some examples (Huangs , 2014):

a.   Quantity:
 <all, most, many, some, > < none, hardly any, few>
b.   Frequency:
<always, usually, often, sometimes> < never, already, not always>
c.   Epistemic modality:
<necessary/ certain, like, possibly> <impossible, unlike , uncertain>
d.   Temperatures:
 < boiling, hot, warm> <freezing, cold, cool, lukewarm>

e.   Preference:
<adore, love, like> <loath, hate, dislike>
f.   Evaluation:
< excellent, good, all right/OK> < terrible/ awful, bad, mediocre>
From the above presentation, it is clear to observe that the expressions or predicates on the left side of the scale entail those on the right side, but not vice versa. Thus, the item (all) entails the item (most), and (most) entails (many) etc., but (most) does not entail (all). One can easily notice that sentences like (1) entail sentences like (2) and not vice versa:
1.   **All** the books are available.
2.   **Some of** the books are available.

Hedges
The term *hedges* was first introduced Weinreich (1966: 163) who wrote about "metalinguistic operators". However, the notion of hedge has been developed further by George Lakoff (1972: 485) in which hedges are defined as *"words whose job is to make things fuzzier or less fuzzy".* Hedging, according to Lakoff, involves mitigation or lessening the class membership, as in:
a) Mike is **sort of** artful.
b) This is **technically** a legal contract.
Or, strengthening class memberships, as in:
a) Sarah is **very, very** beautiful.
b) He thinks that it is **absolute** fake.
c) She **really** loves this film.
Lakoff (1972) started with semantic discussions of *sort of,* showing that it reveals different categories of membership. As in the following sentences:
a) Robins are *sort of* birds. [False, they are bird]
b) Chickens are sort of birds. [True, or close to true]
c) A horse is sort of a bird. [False]
The truth of (a) must be "rejected" for robins are real birds, "possibly" is accepted with domestic fowl like a chicken in (b) , and "rejected" in (c) because the animal is simply not bird nor even bird-like. Lakoff (ibid) has offered the following expressions as hedges in English:
 Sort of, roughly, rather, really, actually, mostly, very, kind of, typically, more or less, in a sense, technically, relatively, strictly speaking, largely, basically, in a way, almost.

Crystal (2008: 227) defines hedges as a general term used to express imprecision or qualification and that such term is manifested in both pragmatics as well as discourse analysis. Examples include *kind of, more or less, roughly, approximately.*
The term HEDGED PERFORMATIVE was introduced by Fraser (1975) where certain performative verbs such as promise, request, and apologize are preceded by specific modals such as *can, must, and should*, as in:
a) I *can* promise that I will call you soon.
b) She *must* requests him sitting down.
c) I *should* apologize for that night.
In 1972, Lakoff has considered only propositional hedging, and in 1975 Fraser has discussed only on performative verb hedging. In 1978- 1987, Brown and Levinson have fully developed the speech act aspect of hedging, they (ibid), in an effort to account for politeness, have treated the hedging of the illocutionary force of a speech act in detail. This second type of hedging is known as SPEECH ACT HEDGING.
Fraser (2010: 18) argues that:

Communicative intentions are adjusted and encoded in speech acts, and if one looks at the conditions on the felicitous use of speech acts, the sources of threat become clear … Consequently, to hedge these assumptions – that is avoiding commitment– is a primary and fundamental method of disarming routine interactional threats.

Two types of hedging have been distinguished by Prince et al. (1982). Type one is "propositional hedging" which is the content reflecting the truth of the proposition. Type two is "speech act hedging" which involves the speaker's commitment to the truth of his proposition.

Prince et al. (1982), Brown and Levinson (1987) and Fraser (2010) have provided the following classes of hedging:

(a)   APPROXIMATORS: they are expressions which, in different situations, can change the original meaning or present different meanings to proposition. i.e. they change or affect the first meaning of the proposition. There are two subclasses: ADAPTORS related to the class memberships; as in, somewhere, kind of, some. For example:

He was *somehow* tired yesterday

And ROUNDERS**,** convey the inexact preciseness, examples of rounders are: about, approximately, something around, etc. For example: It was *approximately* 50 kilograms. In both sub-classes the speakers are using the hedging to indicate that actual situations are close to but not exactly modified.

 (b) SHIELDS: they do not change the original condition, but present the commitments of the speakers to the truth value of their proposition. Shields indicate that the speaker is not fully committed the validity of the connived proposition. They alter the relation between the speaker and the content of his proposition by involving a degree of doubt with regards to the commitment of the speaker. The two subclasses of shields are: PLAUSIBILITY SHIELDS are those expressions related to *uncertainty*, such as: *possibly, she thinks, as far as I know,* for example:

As far as I know, they are married

The above example is illustrating weakening statement; i.e. expressing uncertainty.

The second subclass, ATTRIBUTION SHIELDS, are expressions which attribute the truth of the proposition not to the speaker but to someone else via reasoning, for instance: *at least to my knowledge, according to*, etc. for example:

According to AccuWeather, it won't rain tomorrow.

In this example, the responsibility of the information is attributed to someone other than the speaker.

The aforementioned treatment of hedges can be summarized in Figure (1) below
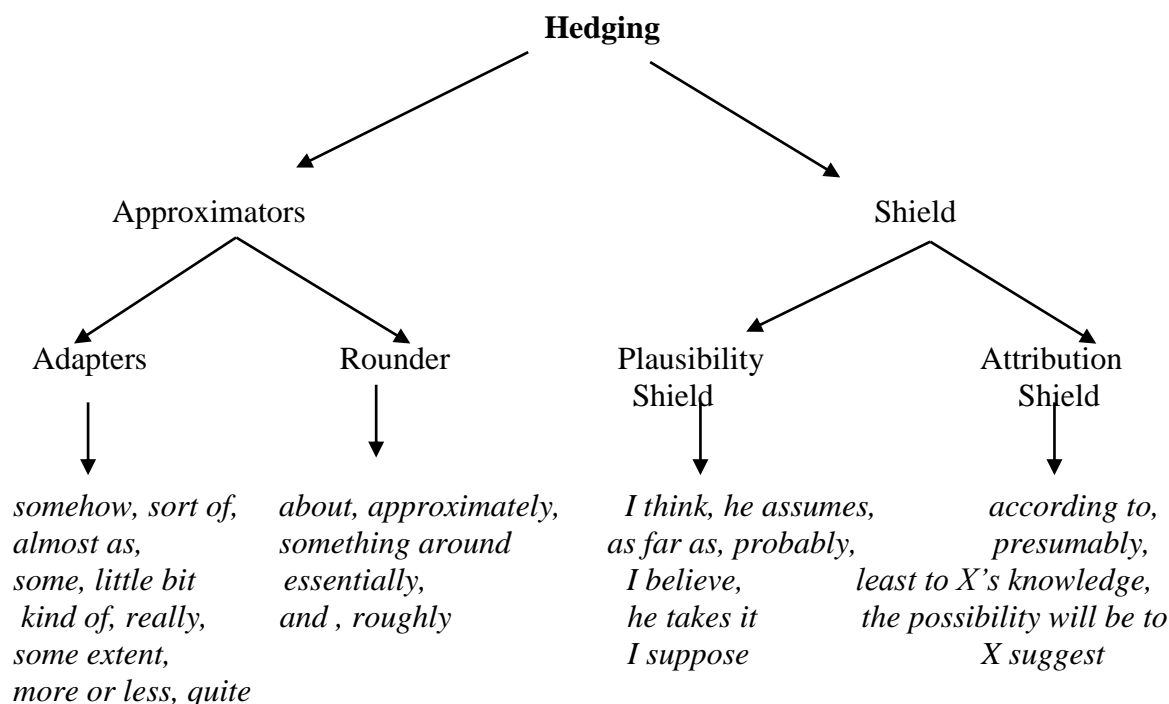
Hedging

Approximators   Shield

Adapters Rounder Plausibility Attribution
         Shield   Shield

somehow, sort of,   *about, approximately,*   *I think, he assumes,*   *according to,*
almost as,   *something around*   *as far as, probably,*   *presumably,*
some, little bit   *essentially,*   *I believe,*   *least to X's knowledge,*
kind of, really,   *and , roughly*   *he takes it*   *the possibility will be to*
some extent,   *I suppose*   *X suggest*
more or less, quite

Figure (1) Hedges Types and Their Linguistic Triggers

The Model of Analysis
The model of analysis, which is intended to be developed by this study, is based on the pragmatic issues discussed in the previous sections. It is basically divided into four basic components: speech acts, presuppositions, scalar implicature, and hedging. Speech acts are represented by macro sub-acts as Representatives, Directives, Commisives and Expressive. The Representatives speech act hosts the micro sub-acts of predicting, asserting, stating, concluding and denying. Directives speech acts include the sub-acts of warning, instructing and advising. Finally, the speech acts of Commisives and Expressive house the micro sub-acts of promising and pleasure sub- acts respectively.

As regards presuppositions, three main types are included and they are: the existential (triggered by definite description), lexical (triggered by Change of state or Iteratives) and structural presupposition (triggered by wh-questions or Counterfactual Conditions. As for Scalar Implicature, the main types are Quantity (QSI), Temperatures (TSI) and Epistemic Modality (EMSI).

As far as hedging expressions are concerned, they are divided into approximators and shields; each is subdivided into further categories and subcategories. Approximators are subdivided into the categories of adaptors and rounders. The Shields are subdivided into plausibility, which is divided into hedged performative and uncertainty, and attribution. Figure (2) below summarizes this model.
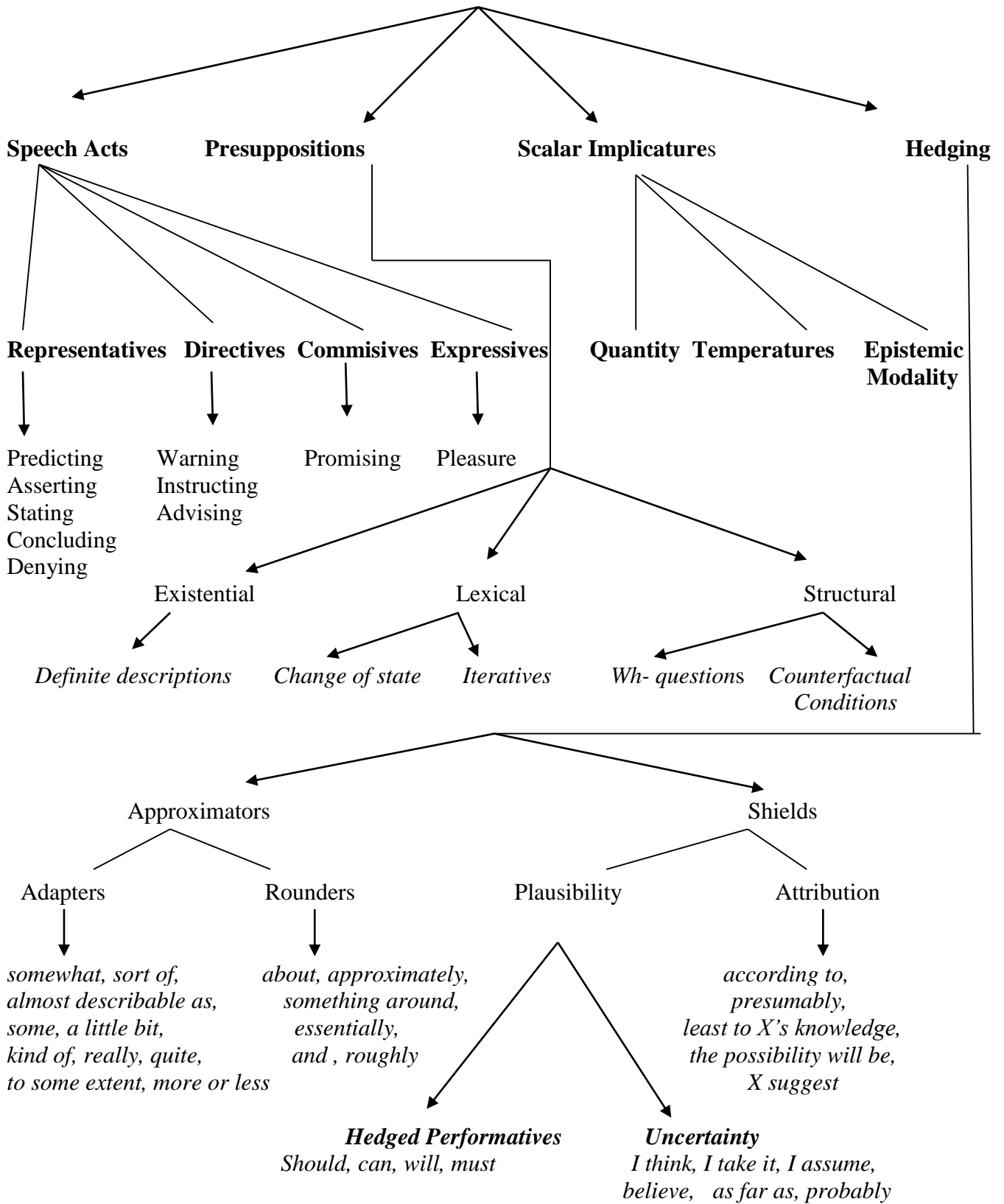
The Pragmatics of Weather Forecasting

Speech Acts   **Presuppositions**   **Scalar Implicature**s   **Hedging**

Representatives **Directives** **Commisives** **Expressives**   **Quantity** **Temperatures** **Epistemic Modality**

Predicting   Warning   Promising   Pleasure
Asserting   Instructing
Stating   Advising
Concluding
Denying

Existential   Lexical   Structural

Definite descriptions   *Change of state*   *Iteratives*   *Wh- question*s   *Counterfactual Conditions*

Approximators   Shields

Adapters   Rounders   Plausibility   Attribution

somewhat, sort of,
almost describable as,
some, a little bit,
kind of, really, quite,
to some extent, more or less

about, approximately,
something around,
essentially,
and , roughly

according to,
presumably,
least to X's knowledge,
the possibility will be,
X suggest

Hedged Performatives
Should, can, will, must

Uncertainty
I think, I take it, I assume,
believe,   as far as, probably

Figure (2) The Pragmatic Analytical Framework of Weather Forecasting

DATA AND ANALYSIS

Data
Data Selection and Description
The data of the work are all collected from the YouTube cite. For the sake of analysis, they are represented by three texts which are given the symbols of T1, T2, and T3. They are characterized by certain features which can be illustrated as follows:

1.   Number: The data consist of three recorded weather forecasting reports from different channels: The BBC/ UK channel (Appendix 1), It includes weather casting for a whole week presented by Alex Deakin on Sunday 31 May, 2015. ABC Action Weather (Appendix 2), it presents the weather forecast of Florida, published on Tuesday, January 19, 2016 presented by Ivan Cabrera. And The Weather Network UK's (Appendix 3), presented by Simon Keeling, predicting the winter weather forecast 2016 published on November 30, 2015.

2.   The forecasters: all the three forecasters are meteorologists. (A) Alex Deakin holds master's degree in Physics with Astrophysics from the University of Birmingham. After graduation, Deakin joined the British Metrological (Met) Office. (B) Ivan Cabrera is a meteorologist; he is a Florida State University graduate with the Television Seal of Approval from the American Meteorological Society. (C) Simon Keeling is a fellow of the Royal Meteorological Society and has a PhD and MSc from the University of Birmingham.

3.   Length: The duration of each datum is about (3:41) minutes for T1, (2:50) minutes for T2, and (2:24) minutes for T3. When written on paper, they are ranging from one to two pages for each datum.

4.   Understandability: The language used in those weather forecasting reports is not difficult to understand, as they address audiences form different backgrounds. The forecasters make it as simple as possible and never use long words where short one will do.

The Analysis
Methods of Analysis
The eclectic model which has been developed by this study and represented by Figure (2) will be the basic apparatus for analyzing the data of this work. Besides, a statistic means represented by the percentage equation is used for calculating the findings of analysis.

Pragmatic Analysis
T1: *It is the final day of May and sunny weather-wise. I think many of us will be glad to see the back of it. For the start of June don't expect anything spectacular if anything its gonna get wetter and windier over the next couple of days. But then through the week ahead, it should be turning drier and getting warmer as well… How much warmer? Well, it's difficult to say exactly but definitely you're expecting the mercury to be raising cool for the next couple of days with a strong wind for some of us by the end of the week we could be into the mid twenties, that's a few days of though, let's concentrate on the next 24 hour. First of all, low pressure is dominating at the moment this tango of low weather has been providing quite a soggy start a Sunday lingering in north Scotland. but elsewhere the rain actually starts to ebb away and eastern Scotland should brighten up by the end of the day already though a fair few showers for western Scotland Northern Ireland now continue to get blown in through the afternoon as they will cause parts and north-west England,,, elsewhere coast eastern England taking the time to brighten up still quite gray*

coast East England the southeast but even here this evening there could be some sunshine. But even in the sunny spells for the west temperature only thirteen or fourteen Celsius is a feeling cool with the breeze which continues to feed showers into the northwest.

The main function of hedges as introduced by Coates (1996) is the expression of doubt and less (more) confidence. (Coates, 1996:p 154-156). The forecasters use hedging expressions to avoid committing themselves to the accuracy of forecasting (i.e. predictions). In the above text, the weather-forecaster, Alex Deakin, uses several hedging expressions in his introductory part. *"I think many of us will be glad to see",* Deakin uses the uncertainty plausibility shield *"think"* as a strategy of predicting what people would feel about May weather. The plausibility shields are used as a pragmatic strategy for doubt and uncertainty. Another kind of plausibility shields is housed in the form of hedged performative in *"it should be turning drier and getting warmer as well"* which is attributed to doubts. This agrees with the results on Table (1) and both verify the hypothesis that predictions are the global speech act of weather forecasting.

Whereas "*many*" is used as a linguistic item triggering the Quantity SI to imply that the people who will be glad are more than those who are not. Within the same text, QSI can be seen in < many, some, few> manifested in: *" I think many of us will be… for some of us… that's a few days of..."* at the end of this introductory part.

The main SAs that have been observed are predicting speech acts, its felicity conditions are: (1) Propositional content conditions: it is a future event. (2) Preparatory conditions: (a) S has reasons for such p. (b) H doesn't know the p (3) Sincerity condition: S thinks p (4) Essential condition: the utterance counts as an attempt by S to have H to expect p. The predicting SA has gained the highest percentage about 37.25% (see Table 1), since the main function of weather forecasting is predicting, i.e. forecasting, the future of weather. For example: *"....but then through the week ahead, it should be turning drier and getting warmer as well".*

Other speech acts which can be observed are stating SA: *"It is the final day of May"*, instructing SA: *"don't expect anything spectacular"*, expressive SA: *"will be glad to see the back of it"* and asserting SA: *"definitely you're expecting the mercury to be raising cool for the next couple of days"*

Presupposition is exploited in: (1) Existence presupposition: "the low pressure is dominating at the moment" to presuppose the existence of low pressure. (2) Lexical presuppositions which are triggered in the forms of *change of state* as in *"the rain actually starts to ebb away and eastern Scotland"* which presupposes it didn't in the past. (3) Structural presupposition triggered by both: *wh- question* as in: *"How much warmer?"*; presupposing that temperatures are going to be warmer than before. And *counterfactual conditions* as in *" if anything its gonna get wetter and windier over the next couple of days"* to presuppose if you ever expect anything.

T2: *That's (pointing) the temperature we're talking about here, upper twenties to lower thirties not a hard freeze but very cold. You want to bring in the pets, bring the plants, chick on seniors to make sure they have enough heat and that heat is working properly we're going to need it tonight, big time here. Temps tomorrow recovering nicely so that's a good thing about Florida then you get these overnight lows in the thirties and time to*

we jump to good 30 degree and that exactly what we be doing tomorrow .By the way, boating conditions look pretty good northeast to north winds at 15 to the low 15 moderate sharp and there is the sunset first time at 6 o'clock getting more daylight. Now into the evening hours..Recapping the forecast again over fifties today sunny and cool fridges tonight with upper thirties at the airport as we mention upper twenties and thirties further north and then a nice recovery by afternoon in the mid sixties. Don't have to worry about the rain it's about the cold air. by the way those temperatures begin to moderate so by Thursday morning not as cold, so these freezes are going be one night and one night only and then we watch this system role in by Friday the showers and thunderstorms and then truing cooler with fifties and sixties for the weekend.

Directives SAs have been observed in the analysis of data, these include warning, instructing and advising. These speech acts have been detected in: "*the temperature we're talking about here, upper twenties to lower thirties not a hard freeze but very cold. You want to bring in the pets, bring the plants, chick on seniors to make sure they have enough heat and that heat is working properly we're going to need it tonight, big time here.*" using the expressions like "*not a hard freeze but very cold*" is an indirect warning for the audience of coldness weather "*big time here*" is asserting this hard time. This warning is followed by the speech act of advising *"You want to bring in the pets, bring the plants ..."* to indicate *"I advise you to bring in the pets, bring the plants...".* The forecaster is presupposing the existence of *"the pets, the plants, and seniors",* by using the definite descriptions. Another kind of presupposition which is manifested in this datum is lexical presupposition in the forms of change of state as in *"Temps tomorrow recovering nicely so that's a good thing about Florida"* which presupposes that temps were in a bad conditioning. Iteratives presuppositions have been observed in *"Recapping the forecast **again** over fifties today sunny and cool fridges tonight"* to presuppose that it was over fifties before.

T3: *Meteorologically speaking winter consists of the months from December through until February. Don't forget this is a long range forecast. So anything can change and it sometimes doesn't, but these are our best ideas as to how we think things are gonna progress winter so far. Now, last winter the Met Office official report stated that snow falls was unexceptional. this winter we do think that there will be more snow around but given how little sown there was last winter that's not really gonna be that difficult to achieve. so the jet stream is gonna be main story during the first part of the season that's going to bring you wet conditions across many northern parts of Europe and because its coming from the west it means that western parts of the UK through islands are likely to be a considerably wetter than average*

In T3, the forecaster, Simon Keeling, uses an attribute shield *"Meteorologically speaking…as far as temperatures are concerned…"* to mitigate his responsibility for the certainty of the news. In the same vain, the forecaster is making a speech act of conclusion that the audience should be prepared to the possibility of changing in these predictions, the forecaster asks them not to forget that since it is *"a long range forecast"* and he uses the hedged performative *"anything can change".* Therefore, change is possible and these predictions are just *"our best ideas as to how we think things are gonna progress winter so far…",* via the use of plausibility shield *"think".* Rounder and adopters approximators have been observed in *"there will be more snow **around,** but given how **little** sown…"* respectively. Their pragmatic function implies that the utterance, or a certain word, should

not be understood in its literal meaning in the sense that it is only an estimation of some sort.

Existential presupposition is exploited in *"last winter the Met Office official report stated that snow falls was unexceptional"* to presuppose the existence of the official office of Met. The same with *" western parts of the UK through islands are likely to be a considerably wetter than average"* presupposing the existence of the UK. Another kind of presupposition is depicted in the lexical presupposition in the form of Change of state in "that's going to bring you wet conditions across many northern parts of Europe" such change is presupposed due to "jet stream".

T4: *For January wettest in the west I think generally quite windy could be some severe gales around the jet stream again playing its part Mild, perhaps even very mild, across the far south of the country and then the big change we think through February high-pressure started building it brings cooler conditions a risk of wide spread frost as well generally dry but any precipitations that does for as much higher chance of falling as snow because of that cold so this is ho, we think, things look through the whole of winter 2016 wettest acts towards the west because of that west y jet stream less wet in the east but still rainfall totals around or above average for the time of the year but of course we'll keep you updated with any development here on the Weather Network UK .*

One pragmatic strategy to avoid being 100% committed to the accuracy of forecasting is the use of the plausibility shields hedge "*think"* and "perhaps". The pragmatic function of hesitation is also achieved by using adopter approximators *"around or above"* in *"still rainfall totals around or above average for the time of the year"*. Presuppositions in this text are presented in different kinds. For example: *"The jet stream again playing its part"*. Here, the forecaster is presupposing the existence of the jet stream (Existential presupposition) and presupposing that it did play a role in the past (Iteratives presupposition). Speech act of promising has been observed in *"We'll keep you updated with any development here on the Weather Network UK"*.

Statistical Analysis
The following tables and figures show the statistical analysis of the aforementioned pragmatic analysis. They demonstrate the frequency of occurrences of each pragmatic device. The results arrived at by applying the percentage equation in the three weather forecasts reports under investigation

Table (1) Frequencies and Percentages of SAs

Speech Acts	Appendix 1 BBC/UK Channel	Appendix 2 ABC Action Weather	Appendix 3 The Weather Network UK's	Total	Percentage
Predicting	6	8	5	19	37.25%
Warning	2	3	1	6	11.76%
Asserting	3	5	-	8	15.68
Promises		1	1	2	3.92%
Instructing	1	1	-	2	3.92%
Expressive	1	1	-	2	3.92%
Denying		1		1	1.96%
Stating	2	3	1	6	11.76%
Advising		3		3	5.88%
Concluding	-	1	1	2	3.92%
					99.97%

As shown in the above table, speech act of predicting occupies the highest percentage (37.25%) because the main purpose of weather forecasting is predicting the future of weather. Asserting speech act comes second with (15.68%), whereas warning and stating speech act comes in the third level with about (11. 76%). Giving advice about weathering occupies (5.88%). (3.92%) is the percentage of all of promising, instructing, expressive and concluding speech acts and only (1.96%) for denying speech act. The findings of Table (1) are schematized in Figure (3) below
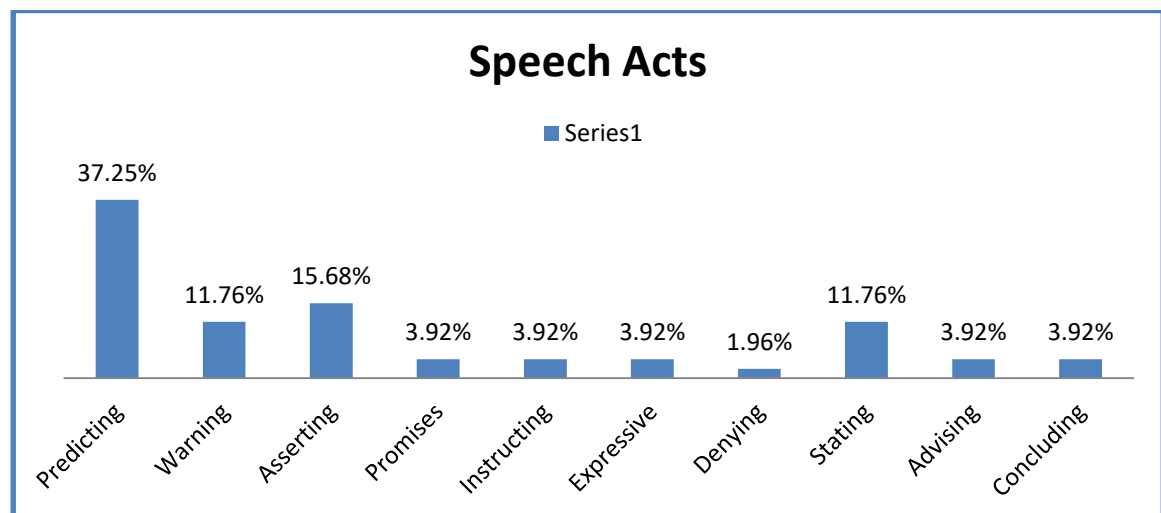

Figure (3) Speech Acts utilized in forecasting

Table (2) Frequencies and Percentages of Presupposing

Presuppositions	Form Of trigger	Appendix 1 BBC/UK Channel		Appendix 2 ABC Action Weather		Appendix 3 The Weather Network UK's		Total
		freq.	%	freq.	%	freq.	%	
Existential	*definite descriptions*	6	10.52%	12	21.05%	6	10.52%	24.09%
Lexical	*change of state*	9	15.78%	9	15.78%	6	10.52%	24.08%
	iteratives	1	1.75%	1	1.75%	1	1.75%	5.25%
Structural	*wh- question*	1	1.75%	-	-	-	-	1.75%
	counterfactual conditions	3	5.26%	2	3.50%	-	-	8.76%

Table (2) demonstrates the main kinds of presuppositions manifested in weather forecasting reports along with their forms of trigger. As the mathematical percentages show that highest percentages are those triggered by "definite descriptions" and "change of state" (total   24.09% and 24.08% respectively). Such percentages are in accordance with verifying the hypothesis that these reports are changeable assumptions, assuring that the main characteristic of forecasting weather which is the fact that these are predictions of existed phenomena and that they are changing constantly. The total percentages, as shown in Figure (4), show that lexical presuppositions usage is the most common then the existential and lastly the structural presuppositions, as it is manifested with about the percentages of (29.33%), (24.09%) and (10.51%) respectively
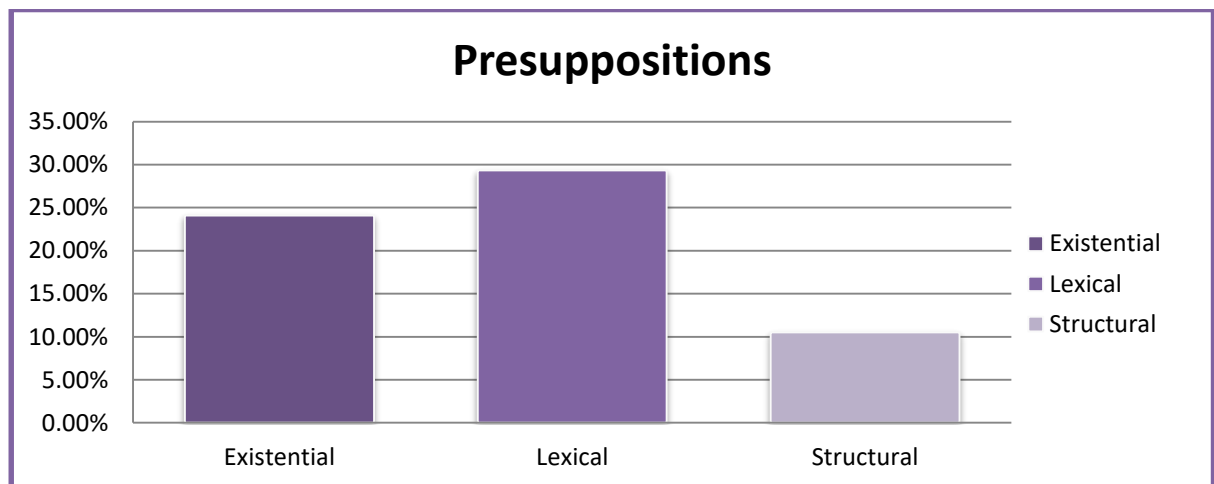

Figure (4) Rates of the three types of presuppositions

Table (3) Frequencies and Percentages of SI

Scalar Implicature	Appendix 1 BBC/UK Channel		Appendix 2 ABC Action Weather		Appendix 3 The Weather Network UK's		TOTAL
	Freq.	%	Freq.	%	Freq.	%	
Quantity SI (QSI)	5	20%	6	24%	4	16%	60%
Temperatures SI (TSI)	2	8%	2	8%	2	8%	24%
Epistemic modality (EMSI)	-	-	2	8%	2	8%	16%
							100%

Table (3) above validates the hypothesis that weather forecasting are only assumptions and, therefore, the forecasters avoid giving precise information and use scalar of implicatures. As Table (3) above and in Figure (5) below demonstrate, Quantity SI is about (60%) which asserts that forecasting is presented on a kind of comparing weather conditionings by using quantity expressions like "few, some many" and the like. These quantity expressions make audience infer the pragmatic meaning that the forecaster is not resenting explicit information, but rather estimations.
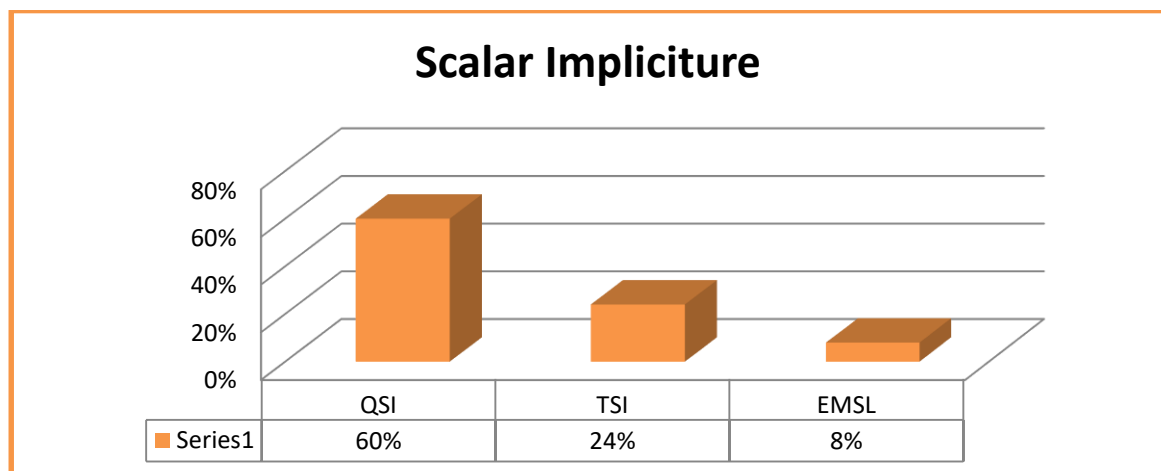

Figure (5) the distribution of Frequencies according to the types of SI

Table (4) Frequencies and Percentages of Hedges

	Appendix 1		Appendix 2		Appendix 3		Total No.	Total percentage
	Freq.	%	Freq	%	Freq	%		
No. of Hedges	62	50.40 %	32	26,01 %	29	23,57%	123	99.98 %

Table (4) illustrates how using hedges is pervasive in weather forecasting. The total percentage of using them is (99.98 %). Basically they are utilized to avoid commitment to the accuracy of the predictions. This finding matches the pragmatic function. The main function of hedging is expressing doubts or uncertainty; the forecasters used these expressions to single lack of commitment to the proposition expressed in the reporting. The findings of using hedges in forecasting are further illustrated in Figure (6)
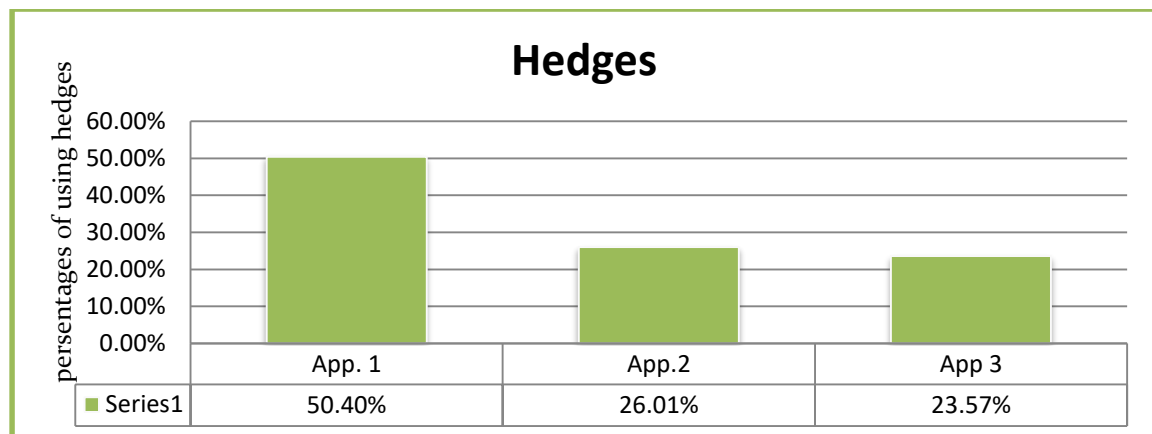

Figure (6) the percentages of using Hedges

CONCLUSIONS

On the basis of the findings of the analysis, this study has come up with the following conclusions:

1. The three forecasters who have presented the data of this study are mythologists, yet they have avoided using tightly defined terminological concepts. This is because the aim is to facilitate communication from one person to many, and due to the fact that the audiences are from different backgrounds (educational, cultural, etc.).

2. The main point observed in the analysis of the data is that the forecasters try to avoid the appearance of *playing the experts* , therefore, they use the pragmatic devices such as hedging expressions to perform the main functions of:

 (a) *Expressing uncertainty:* this pragmatic aspect acts as expression of doubt and less (more) confidence. Forecasters use it when they lack confidence in the truth of the proposition expressed in the utterance and want to indicate that they are not committed to a proposition.

(b) *Mitigating the accuracy of news*, and therefore they mitigate the criticism of the accuracy of the information.

The above function is manifested in the data through the implicatures (1) *of personal evaluations* (2) *of approximation* used to imply that an utterance or a specific word should not be understood in its literal meaning in the sense that it is only an approximation of some sort. Such expressions are used to soften critical commitment. (3) *of limitation* and (4) *of hesitation*.

3.   The speech act of predicting has achieved the highest percentage (37.25%), since weather forecasting aims at predicting the development, or changes, of weather even if these predictions are of scientific bases, they remain mysterious and opt to change. The pragmatic and statistic analyses are in accordance with the result that predictions are the global speech act of weather forecasting. The speech act of asserting comes next with (15.68%), and then the speech acts of warning and stating (11. 76%). These percentages draw the picture of what forecasters are doing: First, they predict a weather condition. Then, assert some facts and, on the basis of these predictions and confirmations, they warn people or give advice (5.88%) about some weather conditions. At the end they give promises of providing the audiences with the latest developments.

4.   Presuppositions are employed to express the implied meaning of an expression. They are what the speaker (weather forecaster) assumes that the audiences know. They form the common background between the two.

5.   Scalar implicature (SI) is also used to avoid giving accurate information. The most frequent kind of SI used in the forecasting reporting are: quantity SI and temperatures SI (60% and 24% respectively). They are used to imply that utterances should not be understood in their literal meaning in the sense that they are only an approximation of some sort.

Appendixes

(1) (Appendix 1) The BBC/ UK channel
Good afternoon, It is the final day of May and sunny weather-wise. I think many of us will be glad to see the back of it. For the start of June don't expect anything spectacular if anything its gonna get wetter and windier over the next couple of days. But then through the week ahead, it should be turning drier and getting warmer as well… How much warmer? Well, it's difficult to say exactly but definitely you're expecting the mercury to be raising cool for the next couple of days with a strong wind for some of us by the end of the week we could be into the mid-twenties that's a few days of though, let's concentrate on the next 24 hours.

First of all, low pressure is dominating at the moment this tango of low weather has been providing quite a soggy start a Sunday lingering in north Scotland. but elsewhere the rain actually starts to ebb away and eastern Scotland should brighten up by the end of the day already though a fair few showers for western Scotland Northern Ireland now continue to get blown in through the afternoon as they will cause parts and north-west England,,, elsewhere coast eastern England taking the time to brighten up still quite gray coast East England the southeast but even here this evening there could be some sunshine. But even in the sunny spells for the west temperature only thirteen or fourteen Celsius is a feeling cool with the breeze which continues to feed showers into the northwest.

Tonight, heavy possibly thundery showers and...Yes... may be that's why you can see that snow falling over the Scottish Hills we start June just five or six degrees it will be a cold start to the working week….quite a few of us though, should have is that should have some sunshine around on Monday morning steadily though the cloud will increase in the West lobby some showers through the morning turning into more persistent rain by the afternoon many east scenarios will stay dry week might get up to 16 or 17, but again the most places struggling to get into the teens with the wet and windy weather in north-west Scotland and North Ireland it'll feel pretty bleak this shot (pointing) looks pretty bleak deep area of low pressure this is the kinda of thing would expect to see maybe on the 1st November not the first of June getting unusually windy later tomorrow gale, will so severe gales, blowing could cause few problems with trees and leaf very blustery and for many pretty wet night.

that low pressure system is still with us the second June on Tuesday is draping weather front likely to still bring some cloud right across part the South some uncertainty about that but a very blustery day wherever you are with frequent showers and Scott in some sunshine across central areas will lift the temperatures maybe a little bit higher on Tuesday but don't forget without wind blowing its still going to feel cool. however slide over to Wednesday and it's a much more calm scean the winds have died damage to the showers have disappeared in with some sunshine temperatures climbing widely into the high teens high-pressure then starts to dominate come to the end of the week this low is still nearby and may influence things potentially bring some cloud of showery rain in the far northwest but the most high-pressure bringing a dry and a bright and quite a warm day on Thursday more widely into the high teens or the low 20s. By Friday some uncertainty about the position at the height, but it does look as if this will be bringing a fine day for many the position the high that will dictate the weather if we start to see the winds coming in from the south east is the potential for some thunderstorms late in the day but the most Friday quite a bit warmer and it has been by a Friday at the school and sharry might be a thing of the past.

2) (Appendix 2) ABC Action Weather

Well, if you thought it was cold this morning get ready for tonight, these (pointing) are the actual low temperatures this morning in the mid and upper thirties and our usual colder counting and we had forties elsewhere. But tonight I think the airport, in facts, may drop below forty we haven't done that so far this season and I think we have a good shot at doing that tonight across the rest of the state certainly a hard freeze warning now in effect across portions of the Panhandle and north of our viewing area but we're going to get close to some upper twenties and certainly low thirties as we get through tonight setup is right far a very cold conditions here so we'll talk about that, as far as any clouds or weather coming through it is clear and that actually helps things get very cold you lose the blanket of the clouds, the heat that we get during the day gets lost very quickly. future casts nothing doing until we get to about Friday this is an extreme system we're gonna be tracking here too early to say if it is going to be sever thunderstorms for certainly a good line of showers and storms are going to be rolling through find to the forecast let you know how that is looking over the next couple of days. Look at these (pointing) temperatures for highs today in the fifties and that will set the stage for a quick drop off in temperature as Beatrice tonight there it is, Tampa 83 degrees is our forecast low for tonight and then further (pointing) to the north to include portions of Pasco, Hernando, and into citrus county that where temperatures are likely going to go into the upper twenties to lower

thirties and because of that the National Weather Service has issued a freeze warning for interior Pasco all over Hernando and all of citrus counties as we head to through with tonight certainly want to bundle up.

That's (pointing) the temperature we're talking about here, upper twenties to lower thirties not a hard freeze but very cold. You want to bring in the pets, bring the plants, chick on seniors to make sure they have enough heat and that heat is working properly we're going to need it tonight, big time here. Temps tomorrow recovering nicely so that's a good thing about Florida then you get these overnight lows in the thirties and time to we jump to good 30 degree and that exactly what we be doing tomorrow .By the way, boating conditions look pretty good northeast to north winds at 15 to the low 15 moderate sharp and there is the sunset first time at 6 o'clock getting more daylight. Now into the evening hours..Recapping the forecast again over fifties today sunny and cool fridges tonight with upper thirties at the airport as we mention upper twenties and thirties further north and then a nice recovery by afternoon in the mid sixties. Don't have to worry about the rain it's about the cold air. by the way those temperatures begin to moderate so by Thursday morning not as cold, so these freezes are going be one night and one night only and then we watch this system role in by Friday the showers and thunderstorms and then truing cooler with fifties and sixties for the weekend.

 (3) (Appendix 3) The Weather Network UK's, the winter weather forecast 2016
Meteorologically speaking winter consists of the months from December through until February. Don't forget this is a long range forecast. So anything can change and it sometimes doesn't, but these are our best ideas as to how we think things are gonna progress winter so far. Now, last winter the Met Office official report stated that snow falls was unexceptional. this winter we do think that there will be more snow around but given how little sown there was last winter that's not really gonna be that difficult to achieve. so the jet stream is gonna be main story during the first part of the season that's going to bring you wet conditions across many northern parts of Europe and because its coming from the west it means that western parts of the UK through islands are likely to be a considerably wetter than average.

As far as temperatures are concerned turning milder cross many parts of central Europe, United States cold block out towards the west that's the tale of the winter overall but belies the main story which is that the winter itself is like to be front- loaded with milder and wet conditions turning cooler towards the end . So month by month in wet and windy through, December particular the first half of the month, turn a little bit cooler Later on. Overall generally quite modern risk of some snow over Scotland at times perhaps getting into northern England now and then as well

For January wettest in the west I think generally quite windy could be some severe gales around the jet stream again playing its part Mild, perhaps even very mild, across the far south of the country and then the big change we think through February high-pressure started building it brings cooler conditions a risk of wide spread frost as well generally dry but any precipitations that does for as much higher chance of falling as snow because of that cold so this is how we think things look through the whole of winter 2016 wettest acts towards the west because of that west y jet stream less wet in the east but still rainfall totals around or above average for the time of the year but of course we'll keep you updated with any development here on the Weather Network UK.

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