

# EPISTEMIC MODALITY MARKERS IN L1 AND L2 DISCOURSE OF MODERN GREEK: A CORPUS-BASED STUDY

Lia Efstathiadi

School of English, Aristotle University of Thessaloniki  
economid@enl.auth.gr

## Abstract

The paper aims to explore the area of Epistemic Modality in Modern Greek, by means of a corpus-based research. A comparative, quantitative study was performed between written corpora of non-native informants of various language backgrounds and Greek native speakers (the control group). A number of epistemic markers were investigated on the grounds of their high frequency, to detect the ways these are used in the expression of L2 speaker stance, as compared to the respective NS one.

## Introduction

This paper conducts a comparative study of written corpora of informal letter-writing with respect to Epistemic Modality (EM) between native and non-native speakers<sup>1</sup> (NS and NNS) of Modern Greek (MG). The study examines the ways NNS express personal attitude or stance towards a State of Affairs (SoA). *Stance* is viewed as “the lexical and grammatical expression of attitudes, feelings, judgments, or commitment concerning the propositional content of a message”, following Biber and Finegan’s definition (1989: 93). The data were cross-examined to locate similarities and differences in the ways the L2 and L1 participants of the study convey the epistemic stance.

Before introducing the notion of EM and the ways this realises in MG, it is wise to briefly define *Modality* and see how this conceptual field is further sub-divided into epistemic and non-epistemic areas. Also, before presenting the quantitative study and its findings, a brief reference will be made to effective argumentation and the judicious use of hedges and boosters that can function as face-protection devices. Due to lack of space, the study’s qualitative analysis will only be touched upon. Finally, the discussion and some concluding remarks will end this paper.

## 1 Modality

The term derives from the latin *modus* which means ‘way, manner’. Although Modality has been the object of continual scrutiny since the days of Aristotle, linguists have not yet come with a clear-cut definition of the notion (Bybee, Perkins & Pagliuca, 1994, as cited in Nuyts, 2006, p. 1; Van der Auwera & Plungian, 1998).

Lyons (1977: 452) uses the term to refer to the speaker’s “opinion or attitude towards the proposition that the sentence expresses or the situation that the proposition describes”. What follows, is a brief but representative sample of the ways scholars have approached this category:

We propose to use the term ‘modality’ for those semantic domains that involve possibility and necessity as paradigmatic variants, that is, as constituting a paradigm with two possible choices, possibility and necessity.

Van der Auwera and Plungian (1998: 80)

Modality is a conceptual category that provides the semantic framework within which language codifies the relations that characterise the logical content of a proposition. On the one hand, there is the internal world, the

---

<sup>1</sup> Although the study concerns written corpora, the terms ‘speaker-hearer’ are used in a broader sense to include those of ‘writer-addressee’. Also, the speaker bears the female identity throughout the paper.

attitude of the speaker who chooses to use this framework to qualify her propositions in her communication with others. On the other, there is external reality, the actual world this proposition refers to and to which the veracity or actuality of an event is always compared.

Ιακώβου<sup>2</sup> (1999: 1)

The inherent vagueness in these definitions reflects the scholars' difficulty to delineate the notion, due perhaps to the multi-functionality of language, which is a powerful tool that satisfies our communicative needs. To this end, language provides us with a repertoire of modal expressions, from which we can choose the ones that best qualify our propositions.

Nuyts (2006) considers modality a supercategory that includes the totality of the ways speakers choose to situate themselves in relation to the actual world<sup>3</sup>. In doing so, the modal qualification of an utterance requires the active involvement of tense and aspect that respectively anchor the reported event to time and describe 'types of actions' (Holton et al, 1997; Palmer, 1986: 45; Φιλипάκη-Warburton & Σπυρόπουλος, 2006). The three categories, he adds, cannot be studied in isolation from one another.

### 1.1 Classifying Modality

Three categories are currently the most commonly used in the literature of Modality, namely *dynamic*, *deontic* and *epistemic* (Von Wright, 1951, as cited in Palmer, 1986, p. 10).

- *Dynamic* modality relates to the capacities, potentials or needs of the (in)animate subject of the clause, either fully inherent to it or conditioned by external factors.
- *Deontic* modality associates to notions like moral obligation, permission and right conduct, that heavily depend upon societal and cultural norms, or on one's ethical criteria (Lyons 1977; Nuyts, 2006; Palmer, 1986 & 2001).

The focus of this paper, though, rests upon the third type, EM.

## 2 Epistemic modality

The term *epistemic* derives from the Greek *επιστήμη* which means 'knowledge'. Utterances within its scope are concerned with speaker opinion, knowledge and judgement rather than fact, all relevant to the truth-value of the SoA (Palmer, 1986; Φιλипάκη-Warburton & Σπυρόπουλος, 2006). This is illustrated in Lyons' (1977) definition:

Any utterance in which the speaker explicitly qualifies his commitment to the truth of the proposition expressed by the sentence he utters, whether this qualification is made explicit in the verbal component ..., or in the prosodic or paralinguistic component, is an epistemically modal, or modalized, utterance. (p. 797)

So far, many scholars (Coates, 1983; Halliday, 1985; Traugott, 2006) have adopted a gradient view of Modality, covering both its epistemic and non-epistemic areas. On the epistemic positive side one moves from absolute certainty via probability to fairly neutral possibility that the SoA is real, while on its negative side one moves from improbability to absolute certainty that the SoA is not real. Given the fact that EM is concerned with speaker attitude, the issue of subjectivity is by definition most relevant to the study of this conceptual category (Palmer, 1986).

<sup>2</sup> The translation bears the responsibility of the author of this paper.

<sup>3</sup> In fact Nuyts' view of the term falls very close to the definition of *stance* provided by Biber and Finegan (1989).

Coates (1983: 20) adds another dimension to the study of EM: “Epistemic modality expresses the speaker’s reservations about asserting the truth of the proposition”. As we cannot always be certain about the (non)actuality of a SoA, we qualify our discourse accordingly when we wish to commit ourselves to the truth-value of our words, or simply hold a neutral position. In the former case we express ourselves in a confident fashion (epistemic necessity), while in the latter case our qualifications are weaker (epistemic possibility) (Palmer, 1986 & 2001). In doing so, we use a number of functionally equivalent ways (grammatical and/or lexical) to express our attitude. The next section presents the exponents of Greek EM, as these are proposed by Κλαίρης & Μπαμπινιώτης (1999).

### 2.1 The grammatical realisations of Greek EM

These involve the ‘semi-auxiliary’ (Τσαγγαλίδης, 2003: 742) modals *πρέπει* (*must*) and *μπορεί* (*may*) that satisfy the criterion for modalhood proposed by Tsangalidis (2004: 237): “the necessary condition for something to be a member of the Greek modal verb system is that it be verbal and that it express both epistemic and non-epistemic modality”. *Μπορεί* is situated on the ‘weak’ side of the scale, while *πρέπει* holds the ‘strong’ one (Mackridge, 1987).

The verbal syntagms that also express EM are organised on the grounds of tense, aspect and mood (Φιλίππακη-Warburton & Σπυρόπουλος, 2006), by means of the subjunctive that relates to non-factivity and less remote possibility (Lyons, 1977) and constructions that mainly consist of the modal particles *να(να)* and *θα(θα)* followed by the verb (Joseph & Philippaki-Warburton, 1987).

*Να* is perhaps the most polyfunctional marker of MG. It can be a complementiser or a subjunctive marker<sup>4</sup>. Depending on structural and contextual factors, its semantics may encode various shades of meaning that range from subjectivity (epistemic sense) to obligation or volition (non-epistemic sense). *Να* will only be discussed to the extent it co-occurs with other EM exponents that mark speaker subjectivity or doubt, like *πρέπει*, *μπορεί*, *ίσως*, etc.

*Θα*, the prototypical future tense marker in MG, is also a modal particle with epistemic and non-epistemic readings. Table 1 below summarises the interaction of the epistemic *θα* (*θα+E*) with the features [±perfect] and [±past] (Tsangalidis, 2002: 138-9):

Table 1: The interaction of *θα+E* with aspect and tense

Aspect/Tense interaction	Example	Reading
1) Perfective past <i>θα</i> + [+perf][+past]	<i>θα έγραψε</i>	epist. necessity or possibility (epist. past)
2) Imperfective non-past <i>θα</i> + [-perf][-past]	<i>θα γράφει</i>	epist. possibility (epist. present)
3) Future perfect <i>θα</i> + perfect	<i>θα έχει γράψει</i>	epistemic perfect
4) Past perfect <i>θα</i> + pluperfect	<i>θα είχε γράψει</i>	epistemic remote past

### 2.2 The lexical realisations of Greek EM

The lexical means of realising Greek EM belong to an open class and can involve: a) lexical 1<sup>st</sup> person verbs like *νομίζω* (I think), *ξέρω* (I know), b) adverbials like *ίσως* (perhaps), *κατά τη γνώμη μου* (to my opinion), c) adjectives like *πιθανός* (possible),

<sup>4</sup> For more information on the polyfunctionality of *να*, see Τζάρτζανος (1953/1991: 185ff). Also, valuable information on the dual nature of the particle, i.e. its ability to express two contradictory assertive nuances (factuality vs non-factuality), as well as on the contextual restrictions involved in either case, can be found in Βελούδης (2001); Ρούσσου (2006); Φιλίππακη-Warburton and Σπυρόπουλος (2006).

*σίγουρος* (certain), d) impersonal constructions like *είναι απαραίτητο* (it is necessary), *είναι πιθανό* (it is likely), etc.

2.2.1 Lexical verbs are often used to convey subjective EM (Lyons, 1977; Palmer, 1986 & 2001). Based on the relevant literature (Biber & Finegan<sup>5</sup>, 1989; Holmes, 1984; Hyland & Milton, 1997; Palmer, 1986; Πολίτης, 2001), the five lexical verbs of the study (see Section 4.4) were divided on the grounds of being strong or weak-assertive verbs:

Table 2: Certainty vs doubt verbs

Verb	Strong Assertive	Weak Assertive
<i>γνωρίζω</i>	P	
<i>θεωρώ</i>	Π	
<i>νομίζω</i> <sup>6</sup>	HM	BF, H, Π
<i>ξέρω</i>	BF, HM, P	
<i>πιστεύω</i>	Π	

2.2.2 Adjectival constructions like *είμαι σίγουρη/βέβαιη* (I am certain/sure) may also bear an epistemic sense. However, as these were not adequately used in the corpora, were not selected for further investigation.

2.2.3 Modal adverbs also serve as lexical exponents of EM. Although they are optional in nature (Kallergi, 2004), they may function as discourse markers as they modify the force of speech-acts in the expression of one's stance (Andersen, 2000, as cited in Downing, 2006, p 46; Biber & Finegan, 1989). Although they tend to appear sentence-initially, their positional possibilities are numerous (De Haan, 2006). From Kallergi's list of epistemic adverbs (2004: 68ff), *ίσως*, *μάλλον*, *βέβαια* and *σίγουρα* yielded the higher frequencies in the corpora (see Section 4.4). *Ισως* comprises the prototypical adverb of epistemic possibility, meaning 'in equal chance, perhaps'. *Μάλλον* is relatively opaque in its semantics, as it may receive meanings similar to 'obviously' but can also serve a comparative function. *Βέβαια* is essentially emphatic in effect, although it can also downtone the pragmatic force of speaker utterance (ibid: 97-8). It is more opaque than *σίγουρα*, which is conceptually closer to absolute confidence.

Having all these tools at her disposal, the speaker can further modify her commitment to the SoA by means of "harmonic combinations" (Lyons, 1977: 807), i.e. by using two or more modal forms of the same degree of modality within a sentence that "mutually reinforce" one another (Halliday, 1970, as cited in Lyons, 1977, p. 807). Non-harmonic combinations, on the other hand, may also yield interesting results, as markers of different modalities (e.g. deontic/epistemic) or different degrees of the same modality (EM: doubt/confidence) are combined together. For example, Μπαμπινιώτης (1999) holds that their semantic inconsistency best reflects the high degree of the speaker's uncertainty at the moment of speaking, as in *Νομίζω ότι σίγουρα θα προλάβετε* (p. 89).

The qualitative analysis of this study provides us with a number of (non)harmonic combinations, where *πρέπει* or *μπορεί* collocate with expressions like *βέβαια*, *νομίζω*, *πιστεύω*, etc.

2.3 The area of EM was found promising for a number of reasons:

<sup>5</sup> The respective abbreviations in the table are BF, H, HM, P and Π.

<sup>6</sup> The fact that the same form can host two opposite assertive nuances may, at first, look like a paradox. However, this is clearly explained and illustrated in Holmes (1990: 187): paralinguistic features like intonation contour (falling-rising intonation), or the positional variance of the verb (initial, medial, final position in the sentence) are factors that should be taken into consideration when one attempts to understand the different senses assigned to the verb.

- It is a complex and difficult notion (even in one's L1), as speaker attitude can be expressed in various ways, reflecting only subtle semantic nuances within the field (Hyland & Milton, 1997).
- Typological studies on Modality (De Haan, 2006; Palmer, 1986 & 2001) show that languages realise EM through a number of linguistic devices (grammatical or lexical) and prosody.
- Previous studies in the L1 (Choi, 2006; Stephany, 1986 & 1995) and L2 acquisition of EM (Dittmar & Ahrenholz, 1995; Giacalone Ramat, 1995; Stephany, 1995) show that it is acquired later than non-epistemic modalities.
- The topics of the two letters raise sensitive issues, associating EM with socio-cultural issues like politeness norms and *face* (Brown & Levinson, 1987).

#### 2.4 The two letters of the study

The situations described in the two letters foreground subjectivity and speaker attitude. The L2 data comes from the papers of adult learners of MG who were issued the Certificate of Attainment in Greek (CAG), levels C and D. C-level candidates had to produce an argumentative letter to ask for a donation for the construction of a homeless shelter from a rich friend, who works as an executive director in a big firm. D-level candidates had to write a letter to a friend to discourage him/her from gambling.

On the basis of what has been mentioned so far, two are the hypotheses of this study. In particular, NNS are expected to:

- a) epistemically modalise their utterances to a lesser degree than NS,
- b) favour the use of lexical (rather than grammatical) forms, in the name of meaning transparency, to avoid misunderstandings.

### 3 Effective argumentative writing, the notion of *face* and the use of hedges and boosters

According to Golder and Coirier (1996), argumentative writing is a social activity that communicatively engages both the speaker and the hearer. It is a highly specific and demanding language behaviour which requires an advanced level of proficiency. Argumentative discourse is opinion-based discourse, in that the speaker usually takes a particular stance on a controversial issue and attempts to convince the hearer to adopt that position. Thus, argumentation is linked to persuasion and negotiation.

An argumentative piece of writing is effective only when well-defined steps of logical sequencing are followed and a common system of social and cultural values is shared between the participants. Its effectiveness, though, can be constrained by situational factors like the nature of the relationship between the participants (friendly, formal), the degree of controversiality of the subject matter, the setting, etc.

According to Biber and Finegan (1989) as well as Hyland (1998), the communicative goal of an argument can further be promoted by a number of metadiscoursal features. Depending on the situation, a person may choose to detach from one's argument by means of expressions of uncertainty or hedges (e.g. *I think, probably, perhaps*), or, conversely, show confidence by means of boosters that further force the strength of one's propositions (e.g. *I know, surely*).

This study focuses on a number of EM markers which, depending on the context, are used as social 'accelerators', 'brakes' (Holmes, 1984: 350) or face-protection devices. Brown and Levinson (1987: 61) define *face* as our public self-image that has two values, a positive (when we wish to be approved by others), and a negative (when we wish to be left free from imposition). Their face-management work focuses on the tension between the need to commit a face-threatening act (FTA), such as a request or an advice, and the need to mitigate it to avoid being impolite.

Successful L2 writing, in the sense of being pragmatically appropriate, foregrounds the issue of cultural variation. The NNS of the study come from different language, educational, and societal backgrounds. Cross-cultural rhetoric suggests that the rhetorical preferences of different languages and cultures tend to manifest themselves in the L2 writing (Hyland & Milton, 1997; Koutsantoni, 2005). Very often the L2 learners violate the L1 communicative norms, by being too direct or too tentative. To avoid such cross-cultural communication problems, L2 learners need to explicitly be taught the different linguistic conventions that express the same meaning (in this case EM) and the particular L2 rhetorical strategies and politeness norms. To this end, the contribution of electronic NS corpora is invaluable, as they provide a valuable source of information for the L2 learner, who becomes better acquainted with collocations or idiomatic expressions in the L2 through exposure to authentic texts or recordings.

#### 4 The study

The present study employs a corpus-based approach. The selected items were retrieved with *Monoconc Pro 2.2*, a concordancer which provides raw frequencies of (strings of) words (including misspellings and other morphological variants).

##### 4.1 The data

The material for the L2 corpus was collected with the permission of The Centre for the Greek Language, and, in particular, the Division for the Support and Promotion of the Greek Language (DSPGL), that exclusively organises, plans, and administers the examinations for the Certification of Attainment in Modern Greek, “which is the sole title of proficiency in Modern Greek that is valid worldwide”<sup>7</sup>.

According to the DSPGL<sup>8</sup> official website, the certificate “serves as proof of the successful candidate’s level of attainment in Greek in the work-market”. “Level C allows foreigners to register at a Greek institution of higher education”, whereas “Level D allows citizens of European Union member states to prove complete knowledge and fluent use of the Greek language and thus be employed in a Greek civil service position”. Thus, the NNS were selected on the basis of their advanced level of proficiency in L2 Greek.

The data was drawn from the exam papers of the candidates who succeeded in the 2003 CAG examinations. CAG requires that each candidate must pass all four language skills (speaking, listening, reading, writing). Their written production consists of two pieces of letter-writing, one of which is usually more formal than the other. The object of this study concerns the informal letter.

##### 4.2 The informants

The NNS corpus consists of the writings of 143 adults L2 learners of MG. 78 of these hold level C and another 65 level D. On the other hand, the 114 informants of the NS corpus are mostly 2<sup>nd</sup> and 3<sup>rd</sup> year students of the School of English, Aristotle University of Thessaloniki. The corpus consists of their written production, a letter written as an in-class timed (30’) assignment. In order to ensure comparability of the data, the NS were randomly divided into two groups and each was given one of the two topics the NNS wrote on.

##### 4.3 The compilation of the corpora

The original letters were typed and transferred into an electronic database, keeping the letters’ original format intact (misspellings, grammatical errors). The corpora consist

<sup>7</sup> The reader is advised to visit CGL’s website for further information concerning its organisation and aims: <http://www.greeklanguage.gr/eng/aims.html>.

<sup>8</sup> Retrieved on 6/2/2009 from <http://www.greek-language.gr/greekLang/en/certification/01.html>.

only of the letters' main body. As the date and the initial greeting (i.e. *Dear X*) were provided by the examination booklet at all times, these were excluded. That was also the case for the named signature at the closing part, which was considered irrelevant to the purposes of this study and thus was excluded, too. Table 3 presents in detail the size of the corpora with respect to level. Note that *Level* relates to L2 corpora, whereas the corresponding *Topic* is more suitable for L1 corpora.

Table 3: The size of the corpora

NS corpus	Tokens	Informants	NNS corpus	Tokens	Informants
Topic C	16.040	60	Level C	19.429	78
Topic D	16.918	54	Level D	21.762	65
<b>TOTAL</b>	<b>32.958</b>	<b>114</b>	<b>TOTAL</b>	<b>41.191</b>	<b>143</b>

#### 4.4 Procedure

Based on the relevant literature on Greek EM (Ιακώβου, 1999; Kallergi, 2004; Κλαίρης & Μπαμπινιώτης, 1999 & 2001; Πολίτης, 2001), a number of grammatical and lexical exponents were retrieved to eventually come up with a representative sample of EM markers, based on their higher frequencies and on a number of other conditions. More specifically, the items of the study should:

- be found in all corpora to facilitate quantitative comparisons between them. An exception was made for *πρέπει*, as it was considered too prototypical a category to be left out of the study
- mark the speaker's strong conviction (epist. necessity) or doubt (epist. possibility) towards the proposition expressed in the sentence
- consist of one word only, to be easily identifiable across concordances.

Thus, the paper examines the following markers: a) the modal verbs *πρέπει* and *μπορεί*, b) the lexical verbs *γνωρίζω* (I come to know), *θεωρώ* (I presume), *νομίζω* (I think), *ξέρω* (I know), *πιστεύω* (I believe), and c) the modal adverbs *βέβαια* (surely), *σίγουρα* (certainly), *ίσως* (perhaps), *μάλλον* (rather, more). Although the epistemic *θα* (*θα+E*) apparently violates the last criterion, it will be investigated on the grounds of its close link to EM.

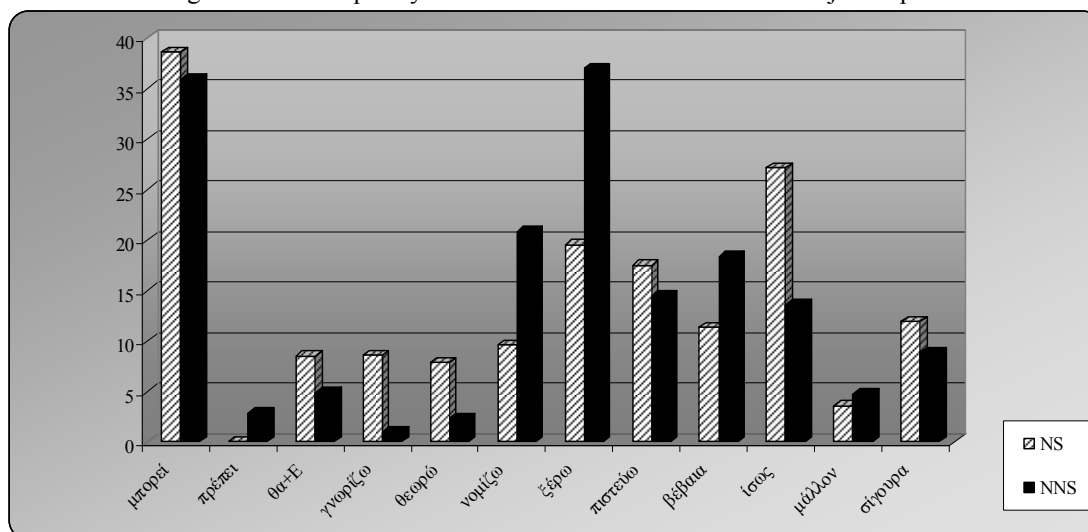
#### 4.5 Findings

As the two major corpora were not of equal size, the observed frequencies were normalised per 10.000 words to facilitate comparative analyses between them. Table 4 presents the raw and normalised counts of the selected items, whereas Figure 1 provides a schematic illustration of their distribution:

Table 4: Raw and normalised frequencies of the selected items in the corpora

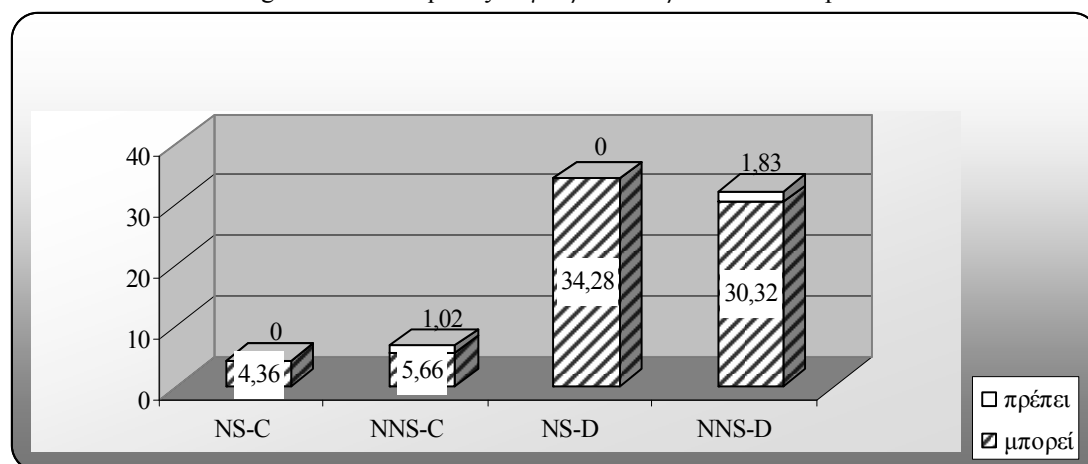
EM marker	NS-C	f/10.000 words	NNS-C	f/10.000 words	NS-D	f/10.000 words	NNS-D	f/10.000 words
<i>μπορεί</i>	7	4,36	11	5,66	58	34,28	66	30,32
<i>πρέπει</i>	0	0	2	1,02	0	0	4	1,83
<i>θα+E</i>	8	4,98	6	3,08	6	3,54	4	1,83
<i>γνωρίζω</i>	10	6,23	1	0,51	4	2,36	1	0,45
<i>θεωρώ</i>	6	3,74	1	0,51	7	4,13	4	1,83
<i>νομίζω</i>	6	3,74	21	10,8	10	5,91	22	10,1
<i>ξέρω</i>	21	13,09	48	24,7	11	6,5	27	12,4
<i>πιστεύω</i>	13	8,1	13	6,69	16	9,45	17	7,81
<i>βέβαια</i>	4	2,49	17	8,74	15	8,86	21	9,64
<i>ίσως</i>	19	11,84	14	7,2	26	15,36	14	6,43
<i>μάλλον</i>	2	1,24	3	1,54	4	2,36	7	3,21
<i>σίγουρα</i>	4	2,49	11	5,66	16	9,45	7	3,21
<b>TOTAL</b>	<b>100</b>	<b>62,3</b>	<b>148</b>	<b>76,11</b>	<b>173</b>	<b>102,2</b>	<b>194</b>	<b>89,06</b>

Figure 1: The frequency of the selected markers in the two major corpora



One immediately understands that the L1 and L2 reasoning is primarily coded lexically, with the frequent use of lexical verbs and adverbs, and secondarily with the use of modal verbs and *θα+Ε*.

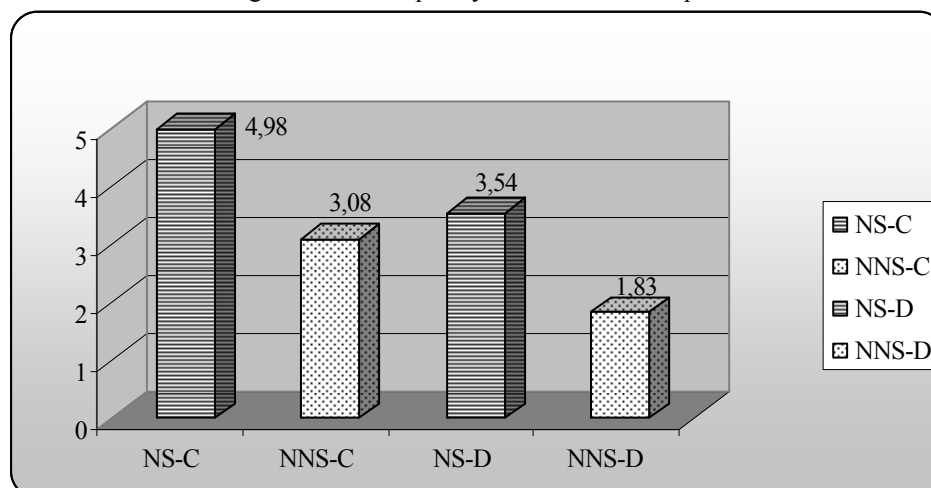
Regarding the distribution of *πρέπει* and *μπορεί*, Figure 2 depicts the emerging pattern in all four corpora:

Figure 2: The frequency of *μπορεί* and *πρέπει* in all corpora

What is evident from Figure 2 is that *πρέπει* marks a very infrequent use (2,85) in NNS corpora and a total absence in the NS ones, whereas *μπορεί* shows a balanced distribution throughout (NS 38,64 / NNS 35,98), although it receives its higher values in the NS corpora. *Μπορεί* is clearly the preferred choice of D-level informants, and yields statistically significant relationships in both corpora: a) NNS-D>NNS-C:  $\chi^2=16.800$ ,  $DF=1$ ,  $p=0,000$ , b) NS-D>NS-C: (Fisher's exact test)  $\chi^2=24.149$ ,  $DF=1$ ,  $p=0,000$ .

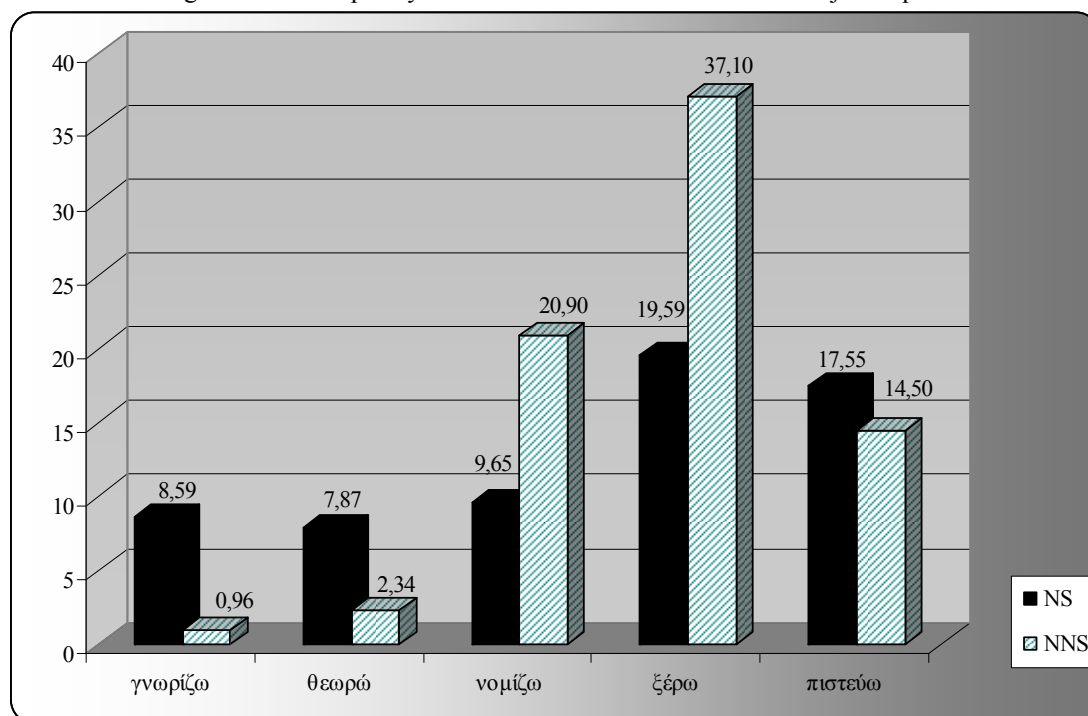
Although neither NS (8,52) nor NNS (4,91) prefer the use of *θα+Ε*, still, the former use it more frequently than the latter:



Figure 3: The frequency of  $\theta\alpha+E$  in all corpora

As for the lexical means of expressing EM, much fluctuation is attested. Figure 4 gives the distribution of the five lexical verbs in the two major corpora:

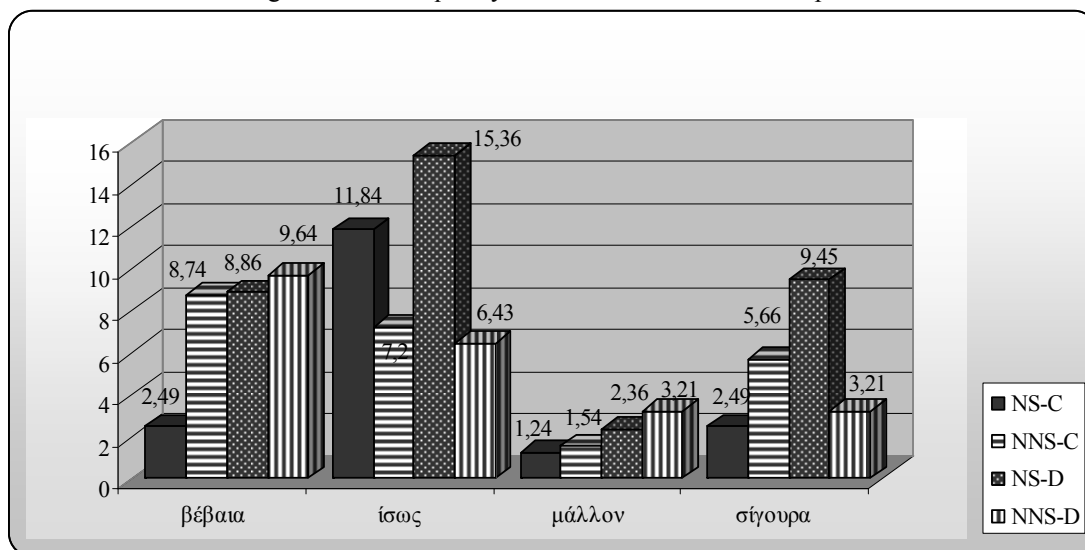
Figure 4: The frequency of the five lexical verbs in the two major corpora



It is clear that both groups rely mainly on *νομίζω*, *ξέρω* and *πιστεύω* to express EM. Still, NS make a more balanced use of the verbs in question. *Ξέρω* is by far the first choice of all the informants (total 56,69), yielding statistically significant relations at level C: a) within NNS corpora (NNS-C>NNS-D):  $\chi^2 = 5.727$ ,  $DF = 1$ ,  $p = 0.017$ , and b) across the two major corpora (NNS-C>NS-C):  $\chi^2 = 4.585$ ,  $DF = 1$ ,  $p = 0.032$ . *Πιστεύω* comes second in frequency (32,05) and *νομίζω* third (30,55). It is interesting to note here that NNS tend to use *ξέρω* and *νομίζω* (almost) double as much as NS, which is an index of their familiarity with these lexical items that denote speaker subjectivity. Both groups make an infrequent use of *θεωρώ* (NS 7,87 / NNS 2,34) and *γνωρίζω* (NS 8,59 / NNS 0,96). A random search in the Hellenic National Corpus (HNC) showed that these are equally infrequent in the L1 usage.

Figure 5 illustrates the distribution of the selected adverbs in all four corpora:

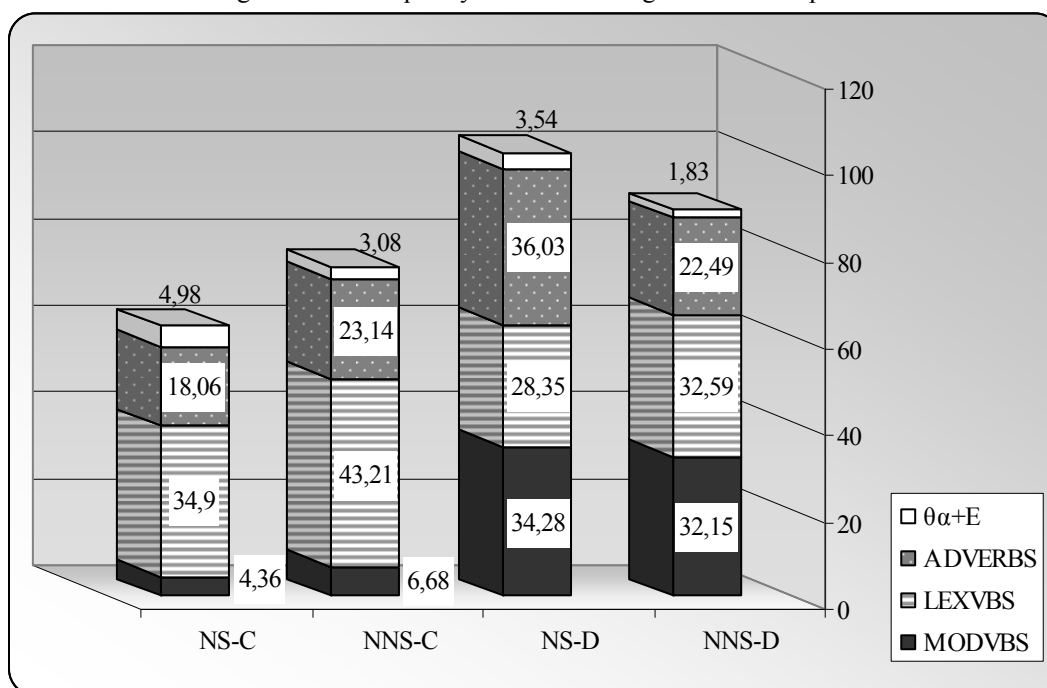
Figure 5: The frequency of the four adverbs in all corpora



*Βέβαια* and *ίσως* are the most commonly used adverbs, whereas *μάλλον* is the least frequent of all. NNS show a preference towards the certainty adverbs *βέβαια* and *σίγουρα* (27,25) over the possibility ones *ίσως* and *μάλλον* (18,38). Across the two major corpora, a relationship was found at level C between tendency towards the use of *βέβαια* and NNS corpus (NNS-C>NS-C): (Fisher's exact test)  $\chi^2 = 4.732$ ,  $DF = 1$ ,  $p = 0,034$ . NS, on the other hand, use possibility adverbs more frequently (30,8) than certainty adverbs (23,29), yielding a statistically significant relation between tendency towards the use of *ίσως* and NS corpus (NS>NNS):  $\chi^2 = 3.883$ ,  $DF = 1$ ,  $p = 0,049$ .

When the items were grouped into four large categories, modal verbs (MODVBS),  $\theta\alpha + E$ , lexical verbs (LEXVBS) and adverbs, the following pattern emerged:

Figure 6: The frequency of the four categories in all corpora



Regarding the grammatical markers of EM and the use of modal verbs, the overall picture is almost identical in the two major corpora (NNS 38,83 / NS 38,64), yielding statistically significant relations at level D: a) (NNS-D>NNS-C):  $\chi^2 = 16.949$ ,

$DF = 1$ ,  $p=0,000$ , and b) (NS-D>NS-C): (Fisher's exact test)  $\chi^2 = 24.149$ ,  $DF = 1$ ,  $p=0,000$ . C-level informants make an infrequent use of modal verbs, whereas the picture at level D is more balanced. Although  $\theta\alpha+E$  receives its higher values in the NS corpora, it marks equally low frequencies in all four corpora. Although this is the case, one would expect that D-level informants would use this marker more than C-level ones, due perhaps to its grammatical complexity. The results obtained show the exact opposite, and this may lead one to think that the informants' sensitivity to this marker at level C was probably topic induced. Asking for money (even for a donation) is a delicate matter that raises sensitive issues. Nevertheless, the delicacy of the situation was perceived by the informants, who resorted to this grammatical marker in order to successfully fulfill the task.

As for the lexical realisations of EM, NNS use lexical verbs more frequently than NS (75,8 > 63,25), while the reverse picture emerges for adverbs: NS 54,09 > NNS 45,63.

Although qualitative analyses are always elucidating, due to lack of space, only a brief reference will be made to the qualitative findings of the study for a more global understanding of this study's results.

## 5 Overall findings of the qualitative analysis

### 5.1 *Πρέπει* and *μπορεί*

- *Πρέπει* is mostly used in its deontic sense to express obligation
- The two verbs are very often found within the scope of (an)other EM marker(s) that influence(s) the reading of the whole proposition. On the one hand, when NNS choose to sound assertive, they make use of harmonic combinations (Lyons, 1977), as illustrated below (all examples are taken from the NNS-D corpus):

*Αγαπητή μου Άννα – στεναχωριέμαι για σένα και γι' αυτό αποφάσισα να σου γράψω αμέσως και να σου παρουσιάσω μερικούς λόγους για τους οποίους **πρέπει οπωσδήποτε** να σταματήσεις να παίζεις τυχερά παιχνίδια. Όμως σε ξέρω από πολύ καιρό για να μην καταλάβω ότι κάποιος ανεξιχνίαστος παράγοντας **πρέπει σίγουρα** να σε έχει επηρεάζει και να σε έχει φέρει σε αυτό το σημείο*

On the other hand, when they wish to attenuate the force of their potentially 'damaging' remarks, for reasons of politeness, they often employ non-harmonic modal combinations:

*Έτσι, πήρα την απόφαση να σου γράψω, για τις αρνητικές συνέπιες αυτής της συνήθειας, παρ' όλο που **ξέρω** ότι **πιθανόν** να σου προκαλέσω στενοχώρεια*

### 5.2 Despite the infrequent use of $\theta\alpha+E$ , this is also found in (non)harmonic combinations:

*Είναι γνωστό ότι η εταιρία σας έχει την δυνατότητα αυτή, άλλα θέλω να το σκεφτείς καλά, και εαν το κάνεις, να είναι μέσα από την καρδιά σου. Σε γνωρίζω και ξέρω πως έτσι θα είναι* (NNS-C)

### 5.3 *Γνωρίζω*, *θεωρώ*, *νομίζω*, *ξέρω*, *πιστεύω*

Although there were not enough occurrences of *θεωρώ*, it invites a strong reading of epistemic necessity in the corpora. *Πιστεύω* is associated to firm belief, whereas *νομίζω* can freely substitute both verbs in different contexts, as it stands on the borderline between the two (Πολίτης, 2001). As for its pragmatic reading, *νομίζω* yields a definite downtoning effect on the semantics of the utterance.

The five verbs are primarily followed by the complementisers *ότι/πως*. *Ξέρω* and *γνωρίζω* signal full commitment to a well-grounded belief that a SoA is true:

*Ξέρω ότι στην πόλη στην οποία τώρα εργάζεσαι υπάρχει ένα κέντρο για την φροντίδα των ζώων* (NNS-D)

*Πιστεύω* and *θεωρώ* are considered less assertive and with a weaker force than *ξέρω* and *γνωρίζω*. However, depending on their position in the sentence, they assume a more emphatic tone. This also holds for the rest of the verbs:

*Νομίζω, οτι<sup>9</sup> τα τύχερα παιχνίδια μπορούν να σου προσφέρουν μόνο οικονομικά προβλήματα* (NNS-D)

When used parenthetically, they express doubt or soften the force of the speaker's statement for politeness reasons (Coates, 2003; Holmes, 1984):

*Αλλά ξέρω ότι έχεις και εσύ μεγάλη καρδιά, και όχι μόνο αυτό, η εταιρία στην οποία δουλεύεις θα μπορούσε να μας χαρήσει αρκετά χρήματα, νομίζω, εαν πείσεις τους συνεργατές σου, για να πραγματοποιηθούν τα όνειρα που κάνουμε για τους φτωχούς, για να ξεφρανιστη φτωχία απο την πλανητη μας* (NNS-C)

The expression of EM is a matter of degree, where the speaker expresses different degrees of certainty (Joseph & Philippaki-Warbuton, 1987) via a number of lexical and grammatical means. She combines them together in (non)harmonic relations to encode subtle nuances within the epistemic meaning a) to express her limited knowledge as to the actuality of the SoA expressed in the sentence (Βελοúδης, 2001; Lyons, 1977), or b) because it best serves her communicative intentions.

NS are naturally expected to cope with such subtle manoeuvres within the epistemic field since they write in their L1. Striking is the skillful production of NNS, who exhibit a more than adequate knowledge of combining together modal markers of the same or of different degrees of EM. These 'epistemic clusters' (Hyland & Milton, 1997: 199) yield different interpretations and reflect a variety of pragmatic functions:

*Έτσι, πήρα την απόφαση να σου γράψω, για τις αρνητικές συνέπιες αυτής της συνήθειας, παρ' ολο που ξέρω ότι πιθανόν να σου προκαλέσω στενοχώρεια* (NNS-D)

#### 5.4 *Βέβαια, ίσως, μάλλον, σίγουρα*

Although the four adverbs are mostly found in initial and mid-positions, they seem to be quite mobile. NNS are fully aware of the impact of this positional variance upon the semantics of the proposition.

The epistemically stronger *βέβαια* and *σίγουρα* are used to express certainty (*σίγουρα*) or indicate that something is well-known (*βέβαια*). They are mostly found in initial or mid-position to express a wide range of meanings:

*Σίγουρα όμως δεν ξέρεις την αιτία για την οποία διάλεξα να δουλέψω εκεί* (NNS-C)

*Κάνε όμως μια προσπάθεια να πείσεις το Συμβούλιο της εταιρίας σου να μας παραδώσει, για ένα μικρό διάλυμα βέβαια, αυτό το σπίτι που, προς το παρόν, είναι άδειο* (NNS-C)

The epistemically weaker *ίσως* and *μάλλον* are mainly used as façades of indirectness, i.e. when the informants need to make an assessment, give advice, or ask for money, without hurting the feelings of the hearer:

*Ίσως θα ήταν καλό να συμβουλευτείς και κάποιον ειδικό, εννοώ ένα ψυχολόγο* (NNS-D)

The qualitative analysis suggests that NNS handle in a more than satisfactory and appropriate way the different uses and senses of the selected items. They give priority to the lexical markers of EM, which they successfully cluster together with other EM markers in ways that best suit their communicative needs.

<sup>9</sup> As already mentioned in 4.3, the format of the original letters (misspellings, grammatical errors) was kept intact.

## 6 Discussion

### 6.1 General remarks

When analysing the distribution of certain forms, it is important to consider the interacting variables that are at play: type of interaction involved, formality of the context, mode of expression, personal identities and the participants' status and sex (Aijmer & Stenström, 2004).

The underlying pattern in the two letters is that the two participants share a friendly relationship. The context is informal and the genre is that of letter-writing. The two letters, however, raise issues that are considered sensitive (request for money/donation) or controversial (advice-giving/gambling), which may potentially damage the participants' face.

### 6.2 Revisiting the two hypotheses of the study

Due to EM's inherent difficulty and despite their advanced level of proficiency, NNS were expected to epistemically modalise their utterances to a lesser degree than NS. However, Table 4 demonstrates that the first hypothesis is disproved. The frequency of the EM markers in the L2 discourse (165,17) is, although marginally so, still higher than the L1 respective one (164,5).

Furthermore, due to the controversiality of the two topics, NNS were expected to favour the use of lexical exponents of EM to avoid any misunderstandings. Indeed, the study verifies this hypothesis. NNS favour the lexical marking in their expression of epistemic stance and they do so to a greater extent than NS, due perhaps to the fact that they recognise the danger of potential face damage and the urgency and sensitive nature of the situations described. Thus, they choose to express their arguments explicitly to avoid miscomprehensions. In this way, there is a chance that their outspokenness will be positively assessed (Brown & Levinson, 1987), which, in turn, may contribute to a successful outcome of their endeavour.

The results corroborate other research findings on the expression of Modality (Dittmar & Ahrenholz, 1995; Giacalone Ramat, 1995; Stephany, 1995), which show that a) modal verbs are primarily used in their non-epistemic sense, b) the epistemic modification of utterances is a later achievement in both L1 and L2 acquisition, and c) the lexical means that convey EM are preferred to the grammatical ones by NNS.

### 6.3 Pedagogical implications

EM is generally acknowledged to be difficult for learners to acquire because speaker attitude can be expressed in a variety of ways that convey an equally wide range of senses. Apart from the inherent difficulty involved in the epistemic meaning, part of the students' difficulty is caused by the fact that the significance of the whole array of devices that realise it is either underestimated or partly presented in both the teacher and student textbooks (Hyland & Milton, 1997; Σπυρόπουλος & Τσαγγαλίδης, 2005).

To this end, the use of corpora can contribute to a better understanding of the semantic nuances involved, as extensive exposure to concordances will help learners realise that modal markers do not just operate in isolation; it is rather the textual or social context that determines the challenging interplay between semantic usage and pragmatic function.

## 7 Conclusion

Taking into account the overall findings, the difficulty of the semantic area of EM, and the overall performance of NNS, one can positively conclude that their linguistic performance falls very close to that of NS in the expression of the epistemic stance. EM is perceived as a gradient notion that realises the speaker's beliefs and evaluative attitudes through a number of different ways, grammatical and lexical.

The data show that EM is just the means to an end, i.e. the satisfaction of various pragmatic functions. The use of epistemic markers throughout the corpora is not related to speaker knowledge or lack of it. The goal to be achieved in the two letters is very definite, for the speaker needs to convince the hearer into making the donation or into quitting gambling. EM is simply the vehicle towards the achievement of the speaker's communicative needs. Depending on the context, she a) 'filters' her utterances to minimise the negative impact of a highly charged material, or b) exploits the strength of epistemic forms to project other aspects in her discourse.

The data show that the epistemic modal markers are polyfunctional and spread across the epistemic scale by means of (non)harmonic combinations that heighten or lower the effect of potentially FTAs. Linguistic politeness, in the sense of showing consideration to the feelings of others (Thomas, 1995) and conforming to the societal standards of 'acceptable' public behaviour, is the factor that draws together all these semantic nuances and pragmatic functions.

This study is better seen as providing some indication for further research. However, a future larger-scale study will shed more light on the ways L2 learners of MG exploit the infinite conventions the language provides in the realisation of the epistemic sense.

Key words: epistemic modality, learner corpora, face, hedges, boosters

## References

- Aijmer, K. & Stenström, A.B. 2004. "Discourse patterns in spoken and written corpora". In K. Aijmer, & A.B. Stenström (eds), *Discourse patterns in spoken and written corpora*. Amsterdam, Philadelphia, John Benjamins, 1-13.
- Andersen, G. 2000. *Pragmatic markers and sociolinguistic variation*. Amsterdam, John Benjamins.
- Βελούδης, Γ. 2001. Νά και να. *Ελληνική Γλωσσολογία '99, Πρακτικά του 4<sup>ου</sup> Διεθνούς Συνεδρίου Ελληνικής Γλωσσολογίας, Λευκωσία, Σεπτέμβριος 1999*. Θεσσαλονίκη, University Studio Press, 243-250.
- Biber, D. & Finegan, E. 1989. "Styles of stance in English: Lexical and grammatical marking of evidentiality and affect". *Text* 9(1), 93-124.
- Brown, P. & Levinson, S. 1987. *Politeness: Some universals in language usage*. Cambridge, Cambridge University Press.
- Bybee, J.L., Perkins, R.D. & Pagliuca, W. 1994. *The Evolution of grammar: Tense, aspect and modality in the languages of the world*. Chicago and London, The University of Chicago Press.
- Choi, S. 2006. "Acquisition of modality". In W. Frawley (ed), *The expression of modality*. Berlin and New York, Mouton de Gruyter, 141-171.
- Coates, J. 1983. *The semantics of the modal auxiliaries*. London, Croom Helm.
- Coates, J. 2003. "The role of epistemic modality in women's talk". In R. Facchinetti, M. Krug, & F. Palmer (eds), *Modality in Contemporary English. Topics in English Linguistics 44*. Berlin and New York, Mouton de Gruyter, 331-348.
- De Haan, F. 2006. "Typological approaches to modality". In W. Frawley (ed), *The expression of modality*. Berlin and New York, Mouton de Gruyter, 27-69.
- Dittmar, N. & Ahrenholz, B. 1995. "The acquisition of modal expressions and related grammatical means by an Italian learner of German in the course of 3 years of longitudinal observation". In A. Giacalone Ramat & G. Crocco Galèas (eds), *From Pragmatics to Syntax. Modality in Second Language Acquisition*. Gunter Narr Verlag Tübingen, 197-232.
- Downing, A. 2006. "The English pragmatic marker *surely* and its functional counterparts in Spanish". In K. Aijmer, & A.-M. Simon-Vandenberg (eds), *Pragmatic markers in contrast, Studies in Pragmatics 2*. Elsevier, 39-58.
- Giacalone Ramat, A. 1995. "Function and form of modality in learner Italian". In A. Giacalone Ramat & G. Crocco Galèas (eds), *From Pragmatics to Syntax. Modality in Second Language Acquisition*. Gunter Narr Verlag Tübingen, 269-293.
- Golder, C. & Coirier, P. 1996. "The production and recognition of typological argumentative text markers". *Argumentation* 10, 271-282.
- Halliday, M.A.K. 1970. "Functional diversity in language as seen from a consideration of modality and mood in English". *Foundations of Language* 6, 322-365.
- Halliday, M.A.K. 1985. *An introduction to Functional Grammar*. London, Baltimore, Edward Arnold.
- Holmes, J. 1984. "Modifying illocutionary force". *Journal of Pragmatics* 8, 345-365.
- Holmes, J. 1990. Hedges and boosters in women's and men's speech. *Language and Communication*, 10(3), 185-205.
- Holton, D., Mackridge, P. & Philippaki-Warbuton, I. 1997. *Greek: A comprehensive grammar of the modern language*. London and New York, Routledge.

- Hyland, K. 1998. "Persuasion and context: The pragmatics of academic metadiscourse". *Journal of Pragmatics* 30, 437-455.
- Hyland, K. & Milton, J. 1997. "Qualification and certainty in L1 and L2 students' writing". *Journal of Second Language Writing* 6(2), 183-205.
- Ιακώβου, Μ.Ι. 1999. *Τροπικές κατηγορίες στο ρηματικό σύστημα της νέας ελληνικής* (Διδακτορική Διατριβή, Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών, Τμήμα Φιλολογίας, Τομέας Γλωσσολογίας).
- Joseph, B.D. & Philippaki-Warbuton, I. 1987. *Modern Greek*. London and New York, Routledge.
- Kallergi, H. 2004. *Greek modality's semantic map: particles, auxiliaries and adverbs* (M.A. Thesis, University of Amsterdam).
- Κλαίρης, Χ. & Μπαμπινιώτης, Γ. 1999. *Γραμματική της νέας ελληνικής: Δομολειτουργική-επικοινωνιακή* (σε συνεργασία με τους Α. Μόξερ, Α. Μπακάκου-Ορφανού, Σ. Σκοπετέα), Τόμος II: Το ρήμα: Η οργάνωση του μηνύματος. Αθήνα, Εκδόσεις Ελληνικά Γράμματα.
- Κλαίρης, Χ. & Μπαμπινιώτης, Γ. 2001. *Γραμματική της νέας ελληνικής: Δομολειτουργική-επικοινωνιακή* (σε συνεργασία με τους Α. Μόξερ, Α. Μπακάκου-Ορφανού, Σ. Σκοπετέα), Τόμος Γ' (II. 2): Τα επιρρηματικά στοιχεία: Η εξειδίκευση του μηνύματος. Αθήνα, Εκδόσεις Ελληνικά Γράμματα.
- Koutsantoni, D. 2005. "Greek cultural characteristics and academic writing". *Journal of Modern Greek Studies* 23, 97-138.
- Lyons, J. 1977. *Semantics* (Vol. 2). Cambridge University Press.
- Mackridge, P. 1987. *The Modern Greek language*. Oxford University Press.
- Nuyts, J. 2006. "Modality: Overview and linguistic issues". In W. Frawley (ed), *The expression of modality*. Berlin and New York, Mouton de Gruyter, 1-26.
- Palmer, F.R. 1986. *Mood and modality*. Cambridge, New York, Cambridge University Press.
- Palmer, F.R. 2001. *Mood and Modality* (2<sup>nd</sup> ed.). Cambridge and New York, Cambridge University Press.
- Πολίτης, Π. 2001. "Δοξαστικά ρήματα και επιστημική αναγκαιότητα". *Ελληνική Γλωσσολογία '99, Πρακτικά του 4<sup>ου</sup> Διεθνούς Συνεδρίου Ελληνικής Γλωσσολογίας, Λευκωσία, Σεπτέμβριος 1999*. Θεσσαλονίκη, University Studio Press, 277-284.
- Ρούσσου, Α. 2006. *Συμπληρωματικοί δείκτες*. Ελληνική Γλώσσα: Θεωρία και Διδακτική. Αθήνα: Εκδόσεις Πατάκη.
- Σπυρόπουλος, Β. & Τσαγγαλίδης, Α. 2005. *Η γραμματική στη διδασκαλία: Σύγκριση εγχειριδίων για τη διδασκαλία της Ελληνικής ως ξένης γλώσσας*. Επιστημονική επιμέλεια Σπ. Μοσχονάς. Αθήνα, Εκδόσεις Πατάκη.
- Stephany, U. 1986. "Modality" (2<sup>nd</sup> ed.). In P. Fletcher & M. Garman (eds), *Language acquisition*. Cambridge, Cambridge University Press, 375-400.
- Stephany, U. 1995. "Function and form of modality in first and second language acquisition". In A. Giacalone Ramat & G. Crocco Galèas (eds), *From Pragmatics to Syntax. Modality in Second Language Acquisition*. Gunter Narr Verlag Tübingen, 105-120.
- Τζάρτζανος, Α.Α. 1991. *Νεοελληνική σύνταξις (της κοινής δημοτικής)*. Τόμος Β, Δεύτερη Έκδοση. Εκδοτικός Οίκος Αδελφών Κυριακίδη (Πρώτη έκδοση 1953).
- Thomas, J. 1995. *Meaning in interaction: An introduction to pragmatics*. London, New York, Longman.
- Traugott, E. 2006. "Historical aspects of modality". In W. Frawley (ed), *The expression of modality*. Berlin and New York, Mouton de Gruyter, 107-139.



- Τσαγγαλίδης, Α. 2003. “Κριτήρια Τροπικότητας II: Η κατηγορία των τροπικών (ημι)βοηθητικών ρημάτων στη νέα ελληνική”. *Μελέτες για την Ελληνική Γλώσσα*, 733-744.
- Tsangalidis, A. 2002. “Homonymy, polysemy, category membership: The case of Greek modal particles”. *Belgian Journal of Linguistics: Particles* 16, 135-150.
- Tsangalidis, A. 2004. “Disambiguating modals in English and Greek”. In R. Facchinetti & F. Palmer (eds), *English modality in perspective. Genre Analysis and Contrastive Studies*. Frankfurt am Main, Peter Lang, 231-268.
- Φιλιππάκη-Warburton, E. & Σπυρόπουλος, Β. 2006. “Το εγκλιτικό σύστημα της Ελληνικής: Συγκριτική θεώρηση με την Τουρκική και διδακτικές προτάσεις”. Στο Σ. Μοσχονάς (επιμ.), *Η Σύνταξη στη Μάθηση και στη Διδασκαλία της Ελληνικής ως Ξένης Γλώσσας*. Αθήνα, Εκδόσεις Πατάκη, 117-170.
- Van der Auwera, J. & Plungian, V.A. 1998. “Modality’s semantic map”. *Linguistic Typology* 2, 79-124.
- Von Wright, G.H. 1951. *An essay in modal logic*. Amsterdam, North Holland.