Multifunctionality of modal markers: Lithuanian epistemic adverbials *gal* and *galbūt* 'perhaps/maybe' vs. their translational correspondences

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Abstract

The present paper deals with the multifunctionality of Lithuanian modal adverbials. The aim of the analysis is to show that the Lithuanian modal adverbials *gal* 'perhaps' and *galbūt* 'maybe' and their English correspondences are multifunctional and to retrieve their meaning variants. This contrastive corpus-based study makes use of quantitative and qualitative methods of research. The results show that the adverbials under study exhibit a variety of functions: though mostly they qualify the proposition in terms of the degree of likelihood, i. e. epistemic modality, they can also acquire several other functions in addition to qualifying the proposition. Though the adverbial *gal* 'perhaps' is more functionally versatile than *galbūt* 'maybe', it is clear that both adverbials have developed post-modal uses. The markers exhibit a diversity of functional variants in different types of discourse: they can act as mitigating devices reducing the illocutionary effect of an imperative or making a suggestion or offer more polite; as interrogative particles; or as approximators estimating a figure, number or quantity; or playing a part of non-factual markers in epistemic lists.

Key words: multifunctionality, epistemic modality, adverbials, corpus-based analysis, frequency, contrastive analysis

Modalinių žymiklių multifunkcionalumas: lietuvių kalbos episteminiai adverbialai *gal* ir *galbūt* bei jų vertimo atitikmenys

Santrauka

Straipsnyje nagrinėjama lietuvių kalbos adverbialų *gal* ir *galbūt* kiekybinė ir kokybinė distribucija skirtinguose diskurso tipuose (šnekamoji kalba, grožinė literatūra,

akademinė kalba). Tyrimo tikslas yra aptarti lietuvių kalbos adverbialų *gal* ir *galbūt* ir jų atitikmenų anglų kalboje multifunkcionalumo aspektus. Straipsnyje pateikiama kiekybinė ir kokybinė šių adverbialų analizė. Šių lietuvių kalbos adverbialų vartosena dar iki šiol nebuvo aptarta pasitelkiant įvairių tekstynų teikiamomis galimybėmis. Tyrimas remiasi tekstynų inspiruota metodologija – empirinė medžiaga yra paimta iš dvikrypčio lygiagrečiojo tekstyno *ParaCorp$_{EN \rightarrow LT \rightarrow EN}$*, Lietuvių mokslo kalbos tekstyno *CorALit* ir iš Dabartinės lietuvių kalbos tekstyno.

Kiekybinė analizė atskleidžia, kad *gal* dominuoja visuose diskurso tipuose. Šis adverbialas vartojamas dvigubai dažniau nei *galbūt*. Tirti adverbialai gana dažnai figūruoja grožinės literatūros tekstuose, tačiau prototipinė jų vartosena yra būdinga šnekamajai kalbai. Tuo tarpu akademiniuose tekstuose *gal* ir *galbūt* nėra dažni ir vartojami panašiai: jų vartosenos dažnis beveik sutampa. Tai galėtų rodyti, kad mokslinių tekstų autoriai pasitelkia kitas lingvistines priemones savo kaip autorių požiūriui reikšti, yra linkę prisiimti atsakomybę už savo teiginių teisingumą ir retai jais abejoja.

Atlikta šių adverbialų kokybinė ir kiekybinė analizė parodė, kad jie yra įvairialypiai ir gali atlikti keletą funkcijų. Prototipiškai jie kvalifikuoja propoziciją episteminiu aspektu, tačiau be šios funkcijos gali atlikti ir keletą kitų: aproksimatoriaus, sąšvelnio, klausiamosios dalelytės ir nefaktiškumo žymiklių episteminuose sąrašuose (angl. *epistemic lists*). Akivaizdu, kad *gal* yra funkciškai lankstesnis nei *galbūt*: pastarasis adverbialas nebuvo vartojamas kaip klausiamoji dalelytė. Tačiau svarbu pažymėti, kad abu adverbialai be savo prototipinės episteminės reikšmės įvairiuose diskursuose įgyja ir kitų, su autoriaus požiūriu nesiejamų, funkcijų ir yra linkę pragmatiškėti.

Raktažodžiai: multifunkcionalumas, episteminis modalumas, adverbialai, tekstynais paremta analizė, dažnis, kontrastyvinė analizė

1 Introduction

Contrastive studies based on empirical parallel and comparable corpus-based data (Aijmer 1996, 1999; Johansson 2001, 2007; Simon-Vandenbergen & Aijmer 2007; Usonienė & Šinkūnienė 2014; Usonienė, Šolienė & Šinkūnienė 2015 among others) show that in a cross-linguistic perspective the degree of lexical correspondence in expressions of epistemic modality is not very high and different subsystems tend to interact. This phenomenon is explained in terms of structural cross-linguistic differences as well as different degrees of grammaticalization, pragmaticalization[1] and (or) multifunctionality of modal expressions.

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[1]   In the light of existing vast amount of the literature on grammaticalization and pragmaticalization (cf. Heine *et al.* 1991; Hopper & Traugott 1993; Traugott 1995; Brinton & Traugott 2005 among others), this paper subsumes a view that the role of conversational

Multifunctionality is a common phenomenon in many languages. Great attention has been paid to modal verbs (auxiliaries) and their epistemic, deontic and dynamic interpretation in different languages (Coates 1983; Hoye 1997; Palmer 2001; Holvoet 2009 and others). Adjectives can also have epistemic or dynamic readings (Lyons 1977). Recent research has indicated that epistemic modal adverbs can be used in different ways as well (Simon-Vandenbergen & Aijmer 2007; Pietrandrea 2007; Cornillie 2010). Modal adverbs do not usually convey dynamic or deontic readings; however, besides their epistemic meaning, they can have a variety of slightly different, post-modal, interpretations.

Lithuanian modal adverbials have not yet been looked at in great detail, nor have they been explicitly compared with their English correspondences in terms of multifunctionality. As no consensus has been reached so far regarding the distinction between the word classes of modal particles/words and adverbs in Lithuanian linguistics, the term 'adverbials' is used to cover both (Smetona & Usonienė 2012). The present paper aims to investigate the modal and post-modal uses of Lithuanian adverbials *gal* 'perhaps' and *galbūt* 'maybe': to determine their functional variants in different discourse types (in fiction, spoken language and academic prose) and to establish parallels between the function and form with the help of the analysis of their translational correspondences. An assumption is made that *gal* 'perhaps' and *galbūt* 'maybe' are multifunctional and perform more different functions than merely expressing epistemic modality or speaker's stance. These functions may not have any connection with the expression of modality. What is more, these functions are dependent on the scope (phrasal or clausal) the adverbial covers.

2 Modal adverbials: previous accounts and hypotheses

There have been a number of monolingual and multilingual studies investigating various aspects of the use of modal adverbials in different languages. Adverbials in Germanic languages have been thoroughly investigated in Biber *et al*. (1999), Nuyts (2001), Wierzbicka (2006), Mortensen (2006), Simon-Vandenbergen (2007), etc. Romance languages received considerable attention in Pietrandrea (2007), Marín-Arrese (2009), Squartini (2008), Cornillie (2009, 2010), Masini & Prietrandrea (2010) among others. Tutak (2003), Letuchiy (2010), Wiemer and Kampf (2012) deal with the Slavic languages. Different research questions have been touched upon, namely, evidential values carried

implicature and "repeated pragmatic inferencing leads to the establishment of newly conventionalized meanings that are encoded in the language" (Hoffmann 2004, 172). Though the paper does not consider all the parameters of grammaticalization in the sense of Lehmann (1995), it takes frequency as an important factor in the process of grammaticalization of a linguistic item (Hoffmann 2004). What is more, the process of semantic bleaching or artrition, i.e. the loss of semantic content seems, to add to the process of grammaticalization. Pragmatic strengthening and increased expressivity of speaker or author stance seem to account for semantic change (Hopper & Traugott 1993, 87–8; Traugot 1995, 49).

together with epistemic meaning components; the issue of subjectivity, the bleaching of evidential and / or epistemic meaning, and diverse functions of adverbials in discourse.

Scholars propose diverse approaches to the issue of different functions of modal adverbials. Stenström (1986) claimed that the different meaning variants of the English adverb *really* occur due to its position in a sentence, some prosodic factors and wider contexts. On the other hand, Paradis (2003) in her study on the polysemy of epistemic modal adverb *really* proposes to approach the multifunctionality issue by analysing the semantic and pragmatic aspects of the adverb rather than focusing on its syntactic features. In the parallel corpus-based study on Slavonic possibility markers van der Auwera, Schalley and Nuyts (2005) briefly touched upon the issue of multifunctionality, where they came to a conclusion that modal adverbs are multifunctional across different languages.

Since the focus of the present paper is on the Lithuanian modal adverbials *gal* 'perhaps' and *galbūt* 'maybe', it seems relevant to account for their *prima facie* correspondences in different languages. In English the two Lithuanian adverbials under examination correspond to *perhaps* and *maybe*. In the *Longman Grammar of Written and Spoken English* the adverbs *perhaps* and *maybe* are classified as stance adverbials and they "have the primary function of commenting on the content or style of a clause or a particular part of a clause" (Biber *et al.* 1999, 853). Furthermore, the two words are said to belong to a narrower class of stance adverbials, namely, epistemic stance adverbials, which "express the speaker's judgment about the certainty, reliability, and limitations of the proposition; they can also comment on the source of the information" (ibid. 854), for example:

(1) ***Maybe*** it is true, ***maybe*** it isn't. (ibid. 854)

The authors do not mention any other functions these adverbs could perform. In the paper on epistemic possibility in the Slavonic languages van der Auwera, Schalley and Nuyts (2005) consider *perhaps* and *maybe* as modal adverbs expressing epistemic possibility which "concerns the speaker's degree of uncertainty about the truth-value of his/her assertion" (2005, 201). However, there are linguists who support the claim that modal adverbials, in addition to conveying epistemic nuances, can be of a more varied and multifaceted nature. Bellert (1977) speaks about modal adverbs as a different class and in this class an adverb is "a predicate whose argument is the truth of the proposition expressed by the respective sentence (not the fact, event, or state of affairs denoted by the sentence in question" (Bellert 1977, 343). What is more, according to the scholar, there are adverbs that are not purely modal, e.g. *perhaps*, *definitely*, etc., in the sense that they may carry additional implications: they "have an additional meaning component that could be described by means of a corresponding meaning postulate. *Perhaps* carries

along an implication that gives a suggestion to a possible answer" (ibid. 344) and can occur in questions, for example:

(2) *Has John **perhaps** been here before?*
(3) *Have you **perhaps** misunderstood the question?* (ibid. 344)

Similarly, as observed in Hoye (1994), modal-adverb formulaic expressions are "commonly used in requests, but the utterances in which they occur sound more indirect and tentative" (Hoye 1997, 123). Such modal combinations are used as part of the conventional linguistic implementation of politeness strategy. In the following example the speaker hardly epistemically qualifies the proposition or questions its truth:

(4) ***Perhaps** you could kindly let me have this information so that I can reply* (ibid. 123).

In the same vein, Precht (2003) notices that "*maybe* literally expresses possibility or uncertainty, but it can be used in conversation to suggest '*maybe we should eat*', estimate '*there were maybe five people*', or hedge '*I don't know. Maybe*'" (Precht 2003, 240). Thus, alongside the function that is generally perceived as rendering the speaker's subjective opinion or attitude towards the content of a proposition, particularly, expressing a certain degree of doubt, these two adverbials, at a closer look, can convey much more than that. Certainly, one has to take into account such things as scope, position and environment in which *perhaps* and *maybe* are prone to occur in one or another function.

The Spanish correspondences of *gal* 'perhaps' and *galbūt* 'maybe' have been extensively analysed in Cornillie (2010), namely, *a lo major*, *igual*, *quizá*, *tal vez*, *acaso*, *posiblemente* and *probablemente*. The paper deals with the discourse functions of epistemic and evidential adverbs in Spanish, in particular, in Spanish conversation. His analysis indicates that the adverbs under study do much more than conveying epistemic reading: they have different roles in the organisation of turn-taking process as well as "go beyond the traditional focus on the evaluation of the likelihood" (Cornillie 2010, 319).

The multifaceted nature of the two Italian near-synonyms *forse* 'perhaps' and *magari* (roughly corresponding to 'maybe', but also to 'I wish') were discussed in Pietrandrea (2007). The word *magari* received more attention in Masini and Pietrandrea (2010). In their study of the Italian *magari* the scholars tried to propose a constructionist approach to its multifunctionality at the level of discourse configurations. According to the authors, *magari* is multifunctional and may serve as 1) a marker of non factuality (in this sense, corresponding to the prototypical meaning of *maybe* or *perhaps* as epistemic possibility markers), 2) a scalar operator that triggers a scale of non-factuality whose end-point is occupied by the element in the focus of *magari*, 3) a non-factual concessive marker

occurring in adversative contexts with the conjunction *but*, 4) a marker of a weakened illocutionary force of an order in imperatives, and 5) an optative marker appearing in exclamatory contexts. The scholars illustrate the above mentioned functions with the following examples (the examples are given in the order the functions are listed):

(5) **Magari** *è a casa.*
   'Maybe (s)he is at home'
(6) *Bisognerebbe negoziare una tregua, un armistizio,* **magari** *la pace.*
   'It would be necessary to negotiate a ceasefire, an armistice and maybe peace'
(7) **Magari** *è intelligente, ma non è abbastanza preparato.*
   'He might be clever, but he has not studied enough'
(8) **Magari** *parlaglione tu!*
   'Perhaps you yourself could talk to him about it!'
(9) *Vorrei tanto vedere un film come quello.* **Magari** *ne facessero ancora!*
   'I really would like to watch a movie like that. I wish they still made some!' (Masini & Pietrandrea 2010, 76)

As the studies show, there is some evidence to suggest that the English *perhaps* and *maybe* as well as their various cross-linguistic counterparts are multifunctional. Intuitively, it seems that the above mentioned functions could be applicable to the Lithuanian modal adverbials *gal* 'perhaps' and *galbūt* 'maybe' with the only exception of them being optative markers.

3 Epistemic adverbials in Lithuanian

In Lithuanian, which is a language that still has many uninvestigated linguistic issues, the classification of modal adverbs, words and particles is rather problematic. There has not been any detailed research carried out on the paths of grammaticalization and pragmaticalization of the Lithuanian adverbial *gal* 'perhaps' and *galbūt* 'maybe'; however, it is obvious that the marker of epistemic possibility *gal* is related to the verb *galėti* 'can / may.INF', while *galbūt* 'maybe' is the truncated form of *galėti* 'can / may.INF' in its modal meaning plus the existential verb *būti* 'to be'. Different authors seem to differ in their views regarding the origin of *gal* 'perhaps'. For instance, the authors of the *Lithuanian Grammar* maintain that *gal* 'maybe' derives from *gali* '(you) can.PRS.2SG' (Ambrazas 1997, 397), while Wiemer (2007) claims that "*gal* is the truncated form of *galėti* 'can' (probably derived from the PRS.3-form *gali* <...>)" Wiemer (2007, 195). Brinton and Traugott (2005) speak about fusion, coalescence, and lexicalization of Polish *može* and Lithuanian *gal* via the constructions *možet byt* 'it may be' and *galbūt* 'it may be', respectively (Brinton & Traugott 2005, 81).

It should be noted that the dictionaries of the Lithuanian language give circular explanations of the meaning of Lithuanian adverbials, i.e. both markers of possibility and the markers of necessity are explained in terms of each other and, therefore, seem to be synonymous: *turbūt* 'probably' is made equivalent to *galbūt* 'maybe' and *tikriausiai* 'most probably'. The authors of the *Lithuanian Grammar* present different glosses for the Lithuanian particle *gal*, which intuitively should be ascribed to the exponents of weak epistemic possibility in Lithuanian. For example, *gal* is glossed as 'probably' (Ambrazas 2006, 400) and as 'perhaps' (ibid. 256).

In Lithuanian dictionaries and grammars *gal* 'perhaps' is attributed to the class of modal particles. According to Ambrazas (2006) *gal* 'perhaps' is classified as a modal particle and "particles are a class of words which serve to give modal or emotional emphasis to other words, or word groups, or clauses" (2006, 395). This particle belongs to the group of dubitative / interrogative particles and renders speaker's doubt or uncertainty about the proposition (2006, 396). *Gal* 'perhaps' is a counterpart of English *perhaps* or *maybe*. Ambrazas (2006) also maintains that the meaning of the particle usually varies since it depends on the environment in which it occurs, context and/or intonation (ibid. 397), which suggests potential multifunctionality. The author also claims that particles generally may specify, limit, intensify the proposition or serve as mere connectors between clauses. So the question can be posed whether *gal* 'perhaps' and *galbūt* 'maybe' always express epistemic modality, or serve some other functions as well, which are not so overtly related to modality. If we classify *gal* 'perhaps' and *galbūt* 'maybe' as epistemic stance markers, it is evident that they do not always mark speaker's epistemic stance alone. Due to their ability to take scope not only over a clause, but also over a phrase, they often render other meanings, e.g. an approximator or mitigator, etc. (for a detailed description of functional variants of the adverbials in question, see section 5).

4 Data and methods

The corpus-based approach adopted in this study helps to reveal patterns and meanings of modal expressions which would be difficult to find otherwise, for example by mere introspection. The method used in the research is non-experimental data collection; it is a contrastive analysis based on the data extracted from several (comparable and parallel) corpora.

The use was made of a self-compiled bidirectional parallel corpus – ParaCorp$_{EN \to LT \to EN}$ (Šolienė 2013). The corpus is designed in accordance with the model of the English-Norwegian Parallel Corpus (Johansson 2007). The ParaCorp$_{EN \to LT \to EN}$ was compiled from original English fiction texts and their translations into Lithuanian and original Lithuanian fiction texts and their translations into English. The advantage of such a

corpus design is that it allows different directions of comparison and can serve both as a parallel corpus and a comparable corpus (Johansson 2007, 11). The size of the corpus is about 5M words (see Table 1):

	Original	Translation	Total
ParaCorp $_{EN\rightarrow LT}$	1, 983, 266	1, 541, 038	3, 524, 304
ParaCorp $_{LT\rightarrow EN}$	608, 426	788, 897	1, 397, 323

Table 1. Size of the two sub–corpora ParaCorp$_{EN\rightarrow LT}$ and ParaCorp$_{LT\rightarrow EN}$

The data were also obtained from a specialized, synchronic corpus of written academic Lithuanian – CorALit (http://www.coralit.lt), which consists of about 9 million tokens. The corpus includes five major science areas: Biomedical sciences (B), Humanities (H), Physical Sciences (P), Social Sciences (S) and Technological sciences (T). The structure and size of CorALit is shown in Table 2:

Science area	Number of words
Biomedical sciences (B)	1, 638, 444
Humanities (H)	2, 028, 906
Physical sciences (P)	1, 510, 981
Social sciences (S)	1, 527, 455
Technological sciences (T)	1, 964, 827
Total:	**8, 670, 613**

Table 2. The structure and size of CorALit

A reference has also been made to the Corpus of the Contemporary Lithuanian Language (CCLL) (http://donelaitis.vdu.lt), namely the subcorpora of fiction texts (15, 765, 554 tokens) and spoken register (447, 396 tokens).

The study utilizes quantitative and qualitative methods of research. Frequencies of particular patterns are of paramount importance to this paper, since frequency may be an important factor in specification of meaning (Leech 2003; Simon-Vandenbergen & Aijmer 2007). Since the sub-corpora are of different size, the raw frequency numbers have been normalized per 10, 000 words. Moreover, in order to verify whether the similarities and differences in frequency are statistically significant, I have also performed the log-likelihood (LL) test, which is commonly considered to be a more statistically reliable tool than the chi-square test (cf. Dunning 1993). The higher the LL test value, the more significant is the difference between two frequency scores. A difference in frequency is considered to be statistically significant if the LL test value is 3.84 or higher at the level of $p < 0.05$.

5 Findings

This section presents the quantitative and qualitative findings of the analysis performed. It starts with the analysis of the quantitative distribution of *gal* 'perhaps' and *galbūt* 'maybe' in different types of discourse. Subsection 5.2 deals with a qualitative view of the functional diversity of the adverbials under study. And finally subsection 5.3 gives some insights into the analysis of translational paradigms of the Lithuanian adverbials in question.

5.1 A quantitative view of *gal* 'perhaps' and *galbūt* 'maybe'

The first step in the analysis was to look at the frequencies and distribution of the two Lithuanian adverbials in different corpora. Table 3 presents the quantitative findings in CCLL (fiction and spoken subcorpora) and CorALit (academic prose).

	gal 'perhaps'		*galbūt* 'maybe'	
	raw	**f/10,000**	**raw**	**f/10,000**
CCLL (Fiction)	1, 755	7.5	2, 989	1.9
CCLL (Spoken)	662	**14.8**	307	**6.9**
CorALit (Acad)	635	0.7	715	0.8
Total	13, 052	**23**	4, 011	**9.6**

Table 3. Frequency distribution of *gal* 'perhaps' and *galbūt* 'maybe' in CCLL and CorALit

Table 3 begins with the following question: which of the two adverbials is preferred in the spoken register, in fiction and in academic prose, respectively? First, it can be observed that *gal* 'perhaps' is clearly the preferred expression in all discourse types: its normalized frequency is 23, whereas the overall distribution of *galbūt* 'maybe' amounts only to 9.6. The ratio of the normalized frequency values between *gal* 'perhaps' and *galbūt* 'maybe' is high, i.e. 2.4. So *gal* 'perhaps' is twice more frequent than *galbūt* 'maybe'. Both adverbials are frequently used in fiction, but their prototypical use is in spoken language. The table below gives the log-likelihood test values in different types of discourse (in fiction and spoken language).

	CCLL (Fiction)	CCLL (Spoken)	LL value
	raw	**raw**	
gal 'perhaps'	11, 755	662	–241.76
galbūt 'maybe'	2, 989	307	–329.74

Table 4. The log-likelihood test values of *gal* 'perhaps' and *galbūt* 'maybe' in CCLL (in fiction and spoken language)

The log-likelihood scores (–241.76 for *gal* 'perhaps'and –329.74 for *galbūt* 'maybe') indicate a statistically significant underuse of *gal* 'perhaps' and *galbūt* 'maybe' in fiction texts as compared to their frequency in spoken language. As regards the frequency distribution of the two adverbials in academic prose, it could be noted that academic prose writers seem to have equal recourse to *gal* 'perhaps' and *galbūt* 'maybe'; their normalized frequencies are almost identical: 0.7 and 0.8, respectively. This might be indicative of the fact that scholars usually have recourse to other linguistic means than adverbials to mark their stance or they tend to take up responsibility for the factuality of their statements and rarely doubt them.

5.2 Functional distribution of *gal* 'perhaps' and *galbūt* 'maybe'

Epistemic modality can be defined as dealing with the "evaluation of the chances that a certain hypothetical state of affairs under consideration (or some aspect of it) will occur, is occurring or has occurred in a possible world" (Nuyts 2001, 21). Traditionally, this conceptual domain is accounted for in terms of epistemic possibility and epistemic necessity. The speaker makes a difference between epistemic possibility (10) and epistemic necessity (11), which corresponds to the high or low degree of likelihood / probability or the speaker's certainty, e.g.:

(10) LT-orig: ***Gal** visąlaik gudriai apsimetinėjo, slapčia Jiems kenkdamas.*[2]
        EN-trans: *Or **maybe** he was clever and was fooling Them the entire time, all the while secretly hurting Them.*

(11) LT-orig*:* ***Tikriausiai** aristokratams lengviau gyventi gražų gyvenimą.*
        EN-trans: *It **must be** easier to live beautiful lives when you're posh.*

Modal epistemic possibility is the main function of the adverbials in question, attributed to *gal* 'perhaps' and *galbūt* 'maybe' and their English counterparts by various grammars and dictionaries. It is the function they are primarily meant to perform. However, epistemic modality in this paper is understood as propositional modality (Palmer 2001, 7) and is possible only when the modal marker affects the whole proposition. So in this function the adverbials in focus have a propositional scope, e.g.:

(12) LT-orig: ***Gal** [Gintė teisinsis....]*
        EN-trans: ***Perhaps** Gintė will make excuses...*

(13) LT-orig: ***Galbūt** [aš jau pradedu senti].*
        EN-trans: ***Perhaps** I am getting old.*

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[2]   If the examples quoted are not from the ParaCorp$_{EN\rightarrow LT\rightarrow EN}$, it means they come from CCLL or CorALit (and are marked accordingly in parentheses alongside the example) and the translation provided is by the author of the paper. Otherwise, the examples carry labels LT-orig and EN-trans.

By no means, epistemic *gal* 'perhaps' and *galbūt* 'maybe' are restricted to sentence initial position. They are endowed with an almost unrestrained syntactic mobility and can freely move in a sentence. What is essential is the clausal scope that they must have.

Another functional variant attributed to both *gal* 'perhaps' and *galbūt* 'maybe' is non-factive markers in 'epistemic lists' (Pietradrea 2007, 47; Simon-Vandenbergen & Aijmer 2007, 283). Here the adverbials indicate that the speaker does not suscribe to the truth of what is being asserted; however, the adverbials are not treated as expressing epistemic possibility since in this function they exceptionally have a phrasal scope, e.g.:

(14) LT-orig: *Turėję pastogę, namus, tėvus, seseris, brolius, **gal** [žmoną], **gal** [vaikus]...*
     EN-trans: *They had a shelter, a home, parents, sisters, brothers, – **maybe** a wife, **maybe** children.*

(15) LT-orig: *O paskui jis prabilo plikoms viešbučio kambario sienoms, žvaigždėms, uždengtoms debesų, pamėklėms, susirinkusioms į kambarį, rašė antrą laišką, paskui trečiąjį ir ketvirtąjį, **galbūt** [ir tūkstantąjį], o gal išvis nė vieno…*
     EN-trans: *And later he spoke out to the bare hotel room walls, to the stars, hidden by the clouds, to the ghosts who had gathered in his room; he wrote the second letter, then the third and the fourth, **perhaps** even the thousandth or perhaps none at all…*

It must be noted that the categorial status of the phrases *gal* 'perhaps' and *galbūt* 'maybe' can modify may theoretically be different, the data show that in all cases they modified noun phrases, as in example (14). The fact that the speaker lists all the constituents under the scope of *gal* 'perhaps' (*žmoną*, *vaikus*), placing them on a par as possible options, shows that he/she does not subscribe to any of them, but rather puts them all forward as non-factual. The same idea was expressed in Pietrandrea (2007, 48) regarding the Italian *magari* 'perhaps': "[t]his would suggest that *magari*, rather than an epistemic, should be considered as a marker of non-factuality, i.e. a form signalling that the speaker does not subscribe to the truth of what is being asserted, independently on evaluation about his commitment to the propositional content."

The third function which *gal* 'perhaps' and *galbūt* 'maybe' could potentially perform is the one of an approximator (Precht 206, 240). In this case the adverbials in question have scope over a phrase again. The essence of this function is to estimate or approximate a number, figure or quantity, for example:

(16) LT-orig: *Man jau trisdešimt, o **gal** net [trisdešimt penkeri].*
     EN-trans: *I'm already thirty, and **maybe** even thirty-five.*

(17) LT-orig: *Ji mato, kad kibiras visai nepilnas, **gal** tik [pusė].*
     EN-trans: *She sees that it's not even a pailful, **barely** a half.*

(18) *Visa Palemono kompanija, **gal** [500 žmonių ar 500 vyrų su šeimomis], yra bendri lietuvių protėviai.* (CorALit)
'The whole Palemonas' company, **perhaps** 500 people or 500 men with their families, are common Lithuanian ancestors.'

In all these examples (16–18) the adverbials replace the word "around" or "approximately". Obviously, this functional variant does not cause any problems to detect it as the adverbials modify a numeral in most cases.

One more function that the analysis of the concordances of *gal* 'perhaps' and *galbūt* 'maybe' allowed me to single out is that of a mitigator. These adverbials can act as mitigators of orders, suggestions or offers. In imperatival contexts *gal* 'perhaps' and *galbūt* 'maybe' weaken the illocutionary force of order as in the following example:

(19) ***Gal*** *parašyk jai.* (CCLL)
Perhaps write.IMP.2SG she.DAT.SG
'**Perhaps** you should write to her.'

The occurrence of *gal* 'perhaps' in this sentence has the effect of weakening the order expressed by the form of the imperative (Masini & Pietrandrea 2010, 76). This pragmatic extension of the adverbial is allowed by its semantic nature. "A non-factual marker introducing an imperative form, in fact, yields a kind of contradiction: the speaker orders something, but at the same time he does not subscribe to his own order" (Pietrandrea 2007, 49). What is more, the adverbials in question can soften not only the illocutionary force of imperatives but also suggestions or offers.

(20) ***Gal*** *galiu kuo padėti?* (CCLL)
Perhaps can.PRS.1SG help.INF
'Can I help you?'

They can occur in the sentences containing a finite verb in the indicative or subjunctive.

In my paper I have adopted Greenbaum's (1969) approach to modal adverbials. He maintains that if modal adverbs occur in the interrogative form, it is not an expression of epistemic modality, but rather a speech act modifying element. Thus, rather than indicating a degree of likelihood or truth/falsity of the state of affairs, it indicates the tendency of a speech act, turning a neutral question into "tendentious" (1969, 111, 153). Therefore, I have separated all the instances where the adverbials under study occur in questions and named the function as an interrogative particle, e.g.:

(21) ***Gal*** *turi* *dar* *ir* *dovanų* *maišiukų?*
Perhaps have.PRS.2SG still and present.PL.GEN bag.PL.GEN (CCLL)
'Do you have any of the present bags?'

(22) LT-orig: ***Gal*** *tu ateisi šiandien?*
EN-trans: ***Perhaps*** *you are coming over tonight?*

In these sentences, the questions basically mean 'is it yes or no?', but by adding the adverbial the speaker assumes the interlocutor's prior knowledge regarding the truth of the proposition. A similar obervation is given in Valeckienė (1998, 192): "Interrogative particles usually go at the beginning of a sentence or clause that is pronounced with a rising intonation. <...> Particles *gal(gi)*, *kažin*, *kažin ar*, *rasi*, *tarsi*, alongside their interrogative function, retain their meaning of uncertainty"[3].

The distribution of the functional variants of *gal* 'perhaps' and *galbūt* 'maybe' is given in table 5:

Discourse type		Ep poss	Ep lists	Approximator	Mitigator	Inter. prtcl
ParaConc (Fiction)	*gal* 'perhaps'	64	6	10	10	10
	galbūt 'maybe'	85	6	5	4	-
CCLL (Spoken)	*gal* 'perhaps'	56	4	17	11	12
	galbūt 'maybe'	83	7	4	6	-
CorALit (Acad)	*gal* 'perhaps'	73	16	4	3	4
	galbūt 'maybe'	93	4	2	1	-

Table 5. Functional distribution of *gal* 'perhaps' and *galbūt* 'maybe' (n = 100)[4]

As table 5 indicates, it comes as no surprise that *gal* 'perhaps' and *galbūt* 'maybe' prototypically function as epistemic possibility markers in all discourse types, *galbūt*

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[3]   The translation is provided by the author of the paper. The original text: „Klausiamosios dalelytės paprastai eina pradžioje sakinio bei dėmens, kuris ištariamas klausiamąja intonacija. <...> Dalelytės *gal(gi)*, *kažin*, *kažin ar*, *rasi*, *tarsi* kartu su klausiamąja funkcija išlaiko ir netikrumo reikšmę." (Valeckienė 1998, 192)

[4]   A randomized sample of 100 instances of both adverbials in question in the three types of discourse has been analysed, which amounted to 600 instances.

'maybe' taking the upper hand. Both adverbials are used in epistemic lists with almost equal frequency; *gal* 'perhaps' is the most frequent in this function in academic Lithuanian (16 times). What is more, *gal* 'perhaps' is most frequently used as an approximator in spoken discourse (17 times) as well as in fiction (10 times). As a mitigator, *gal* 'perhaps' is used more frequently than *galbūt* 'maybe' and in this function it mostly features in spoken discourse and fiction, which is no surprise, since in everyday interaction speakers tend to soften their orders, requests or offers, and the truncated form *gal* 'perhaps' becomes a first and more handy option. The least frequent usage of the adverbials as mitigators was attested in academic discourse (only three cases of *gal* 'perhaps' and one of *galbūt* 'maybe'). This may offer a straightforward explanation for the scarcity of mitigator uses of both adverbials in the academic texts – scholars are prone to either choose other linguistic means to mark their stance or rarely doubt the factuality of their assertions. It must be noted that *galbūt* 'maybe' was never used as an interrogative particle and featured in the other functions less frequently than *gal* 'perhaps', which might show that *gal* 'perhaps' is more versatile functionally and has furthered on the path of pragmaticalization.

5.3 Translational paradigms of *gal* 'perhaps' and *galbūt* 'maybe'

The translational paradigm, as was shown in Aijmer (2003, 2007), Aijmer and Simon-Vandenbergen (2004), Simon-Vandenbergen (2013), and Usonienė, Šolienė and Šinkūnienė (2015), is a useful means for the investigation of multifunctional expressions. The analysis of the translations of *gal* 'perhaps' and *galbūt* 'maybe' into English exhibited a great spectrum of their translational correspondences (TCs), which may be indicative of their multifunctional nature. Table 6 gives the results obtained by looking at the TCs of *gal* 'perhaps' and *galbūt* 'maybe' in translated English and original English:

TCs	EN-trans (%)	EN-orig (%)
perhaps / maybe	69	47
other ADV	2	4
MOD AUX	15	**31**
other	3	0

Table 6. TCs of *gal* 'perhaps' and *galbūt* 'maybe'

The prototypical TCs of *gal* 'perhaps' and *galbūt* 'maybe' are the English adverbs *perhaps* and *maybe*. It must be noted that English modal auxiliaries get translated by the Lithuanian adverbials in question in 31% of the concordance, this might suggest not only the functional versatility of the Lithuanian adverbials but also the dominance of

the adverbial strategy for epistemic modality expression in Lithuanian (see Usonienė & Šolienė 2010; Šolienė 2012).

The data from a bidirectional corpus allow calculating mutual correspondence, i.e. "the frequency with which different (grammatical, semantic and lexical) items are translated into each other" (Altenberg 1999, 254). The mutual correspondence of *perhaps/maybe vs. gal/galbūt* is 84%, and items with high mutual correspondence values are to be considered as cross-linguistically related systems.

The Lithuanian adverbial *gal* 'perhaps' was translated into English in 19 different ways, whereas and *galbūt* 'maybe' can boast of only 8 different translation correspondences. Table 7 gives a translational paradigm for *gal* 'perhaps':

TCs of *gal* 'perhaps'	raw	%
maybe	190	42
perhaps	121	27
probably	5	1.1
hopefully/possibly	2	0.4
almost/about/approximately	5	1.1
other modal verbs: think, gather, know	4	0.9
might be/have been+P	29	6.4
might+V/ have+V-ed		
may be/have been+P	13	2.9
may+V/ have+V-ed		
can+V	3	0.7
could be/have been+P	5	1.1
could+V		
must have been+P/ must have+V-ed	3	0.7
should+V	1	0.2
will+V/will be+P	5	1.1
would+V/would have+ V-ed	4	0.9
Ø	62	13.7
TOTAL	452	100

Table 7. TCs of ***gal*** 'perhaps' in translated English (LT_orig→EN_trans)

A wide range of TCs of *gal* 'perhaps' once again speaks in favour for the multifunctional character of the adverbial. As can be seen from table 7, the prototypical translation correspondence of *gal* 'perhaps' in English *maybe* (42%) and *perhaps* (27%). However,

the rest of correspondences show great versatility in linguistic expression: approximately 20% of all the correspondences in English are the primary modal auxiliaries or other modal verbs, which might show the prevalence of auxiliary verb strategy in English (see Usonienė & Šolienė 2010).

The attested translational data indicated that *galbūt* 'maybe' is less functionally versatile in comparison with *gal* 'perhaps'. Its concordance encompasses only 8 different TCs:

TCs of *galbūt* 'maybe'	raw	%
perhaps	23	53.5
maybe	13	30.2
almost	1	2.3
possible	1	2.3
probably	1	2.3
might +V	1	2.3
could be+THAT	1	2.3
must have+V-ed	1	2,3
Ø	1	2.3
TOTAL	43	100

Table 8. TCs of *galbūt* 'maybe' in translated English (LT_orig→EN_trans)

Though the *prima facie* TCs remain the same as in the case with *gal* 'perhaps', the variance in the correspondence with English modal auxiliaries is much more scarce: only three English auxiliaries feature as TCs of *galbūt* 'maybe'.

As regards the correlation between the translational correspondences and the functional diversity of the two Lithuanian adverbials under study, their prototypical TCs *perhaps* and *maybe* appear with all functional variants, e.g.:

(23) LT-orig: ***Gal** koks paklydęs keleivis iš kalnų atėjo prašyti pagalbos?*
     EN-trans: ***Maybe** some hiker from the mountain had gotten lost and had come to ask for help?*
(24) LT-orig: ***Gal** jei jis nebūtų šiandien vakare užkopęs į kalną, jei ne tas skaudus ilgesys, **gal** jis ir pasiguostų kaimynams, ir pasipasakotų, bet dabar viskas buvo ne taip paprasta.*
     EN-trans: ***Perhaps** if he hadn't climbed the hill this evening, if it hadn't been for the painful longing, **maybe** he would have sought comfort from his neighbors and told them all about it, but now it wasn't that simple.*

When *gal* 'perhaps' performed the function of approximation, its English translational correspondences were mostly the words *almost*, *about* and *approximately*, e.g.:

(25) LT-orig: *Mes stovėjom tyloje **gal** penkiolika minučių.*
     EN-trans: *We stood silently for **about** fifteen minutes.*
(26) LT-orig: *Atėjo **gal** penki vyrai.*
     EN-trans: ***Approximately** five men came over.*

The main correspondences of *gal* 'perhaps' and *galbūt* 'maybe' as mitigators of orders, suggestions or offers were the English modal auxiliaries *would*, *should* and *could* (frequently in harmonious combination with *perhaps*), e.g.:

(27) LT-orig: ***Gal** tau atvežti?*
     EN-trans: ***Should** I bring you some?*
(28) LT-orig: ***Gal** gali atnešti kavos?*
     EN-trans: ***Could** you **perhaps** bring me some coffee?*

Another interesting observation regarding the analysis of the translational paradigms is the omission of *gal* 'perhaps' in questions, i.e when its function was that of an interrogative particle. This happened in 36% of the concordance of *gal* 'perhaps' as an interrogative particle. In these cases *gal* 'perhaps' was rendered by simple general questions in English, e.g.:

(29) LT-orig: *Tai **gal** čia lankydavosi kokie kunigai?*
     EN-trans: ***Did** any priests visit you here?*
(30) LT-orig: *O tirščiai?! **Gal** man palikai?*
     EN-trans: *And what about the solids? **Have** you left them for me?*

The cases of zero correspondence of *gal* 'perhaps' and *galbūt* 'maybe' in translated English amount to 13% of the whole concordance of *gal* 'perhaps' and 3% of the concordance of *galbūt* 'maybe', respectively, e.g.:

(31) LT-orig: *Tai, **galbūt**, buvo gražus rudens pavakarys.*
     EN-trans: *It   Ø   was a beautiful autumn evening.*
(32) LT-orig: *Kartais nubudusi pagalvodavo, kad **gal** tai yra sąžinės priekaištų išraiška.*
     EN-trans*: Sometimes she would awaken and think that it   Ø   was her conscience expressing itself.*

This may speak in favour of the statement made in Aijmer and Altenberg (1996, 32) that the more grammaticalized an item is the more frequently it is omitted in translation. This

may be indicative of the fact that *gal* 'perhaps' has started on the path of pragmaticalization and is acquiring new functions in textual and interpersonal environments.

6 Conclusions

The quantitative findings show that the Lithuanian adverbial *gal* 'perhaps' is more frequent than *galbūt* 'maybe': in fiction their frequency ratio is 4: 1, in spoken discourse it is 2: 1 and no significant difference in frequency distribution was observed in academic prose. The fact that *gal* 'perhaps' is more frequent than *galbūt* 'maybe' may support the widely acknowledged claim that the high frequency of linguistic items might be indicative of a higher degree of their grammaticalization and pragmaticalization (see Bybee & Hopper 2001).

The investigated adverbials *gal* 'perhaps' and *galbūt* 'maybe' as well as their English counterparts mainly serve as markers of epistemic modal possibility, which is attributed to them as their main function by various dictionaries and grammars. Though the adverbial *gal* 'perhaps' is more versatile in terms of multifunctionality, it is clear that both adverbials have developed post-modal uses and show tendencies to be liable to the process of pragmaticalization. The markers exhibit a diversity of functional variants in different types of discourse: they can act as mitigating devices reducing the illocutionary effect of an utterance; as interrogative particles; as approximators estimating a figure, number or quantity or they can appear in epistemic lists as non-factual markers.

List of abbreviations

ADV	adverbial
DAT	dative
EN	English
Ep	epistemic
f	normalized frequency
GEN	genitive
IMP	imperative
INF	infinitive

LL	log likelihood test value
LT	Lithuanian
MOD AUX	modal auxiliary
n	number of tokens analysed
Ø	zero correspondence
orig	original texts
P	phrase
PL	plural
poss	possibility
PRS	present tense
prtcl	particle
SG	singular
TC(s)	translational correspondence(s)
trans	translated texts
V	verb

Data sources

CCLL	Corpus of Contemporary Lithuanian Language. Available at: http://tekstynas.vdu.lt/
CorALit	*Lietuvių kalbos mokslo tekstynas* (Corpus Academicum Lithuanicum). Available at: http://coralit.lt/
ParaCorp$_{EN \to LT \to EN}$	Bidirectional Parallel Corpus of English and Lithuanian (Šolienė 2013)

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