Dubitative questions and epistemic stance

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1. Introduction

The topic focused on in the present paper is the relationship between dubitative questions (Stivers and Enfield 2010) and epistemic stance (Heritage 2012a, 2012b), specifically between polar questions (polar interrogatives, tag and declarative questions) which include a lexical marker of doubt/uncertainty and the questioner’s epistemic position those questions come from. The analysis of this relationship inevitably leads us to take into consideration alternative and wh-questions as well.

1.1 Epistemic stance

Many studies have been dedicated to the communication of epistemic stance (see, among others, Biber and Finegan 1989; Ochs 1996; Kärkkäinen 2003; Biber 2004; Du Bois 2007; Englebretson 2007; Keisanen 2007; Jaffe 2009; Chindamo et al. 2012, etc.). With the term epistemic stance or epistemic position (which we treat as synonymous) some authors refer to speakers’ commitment towards the truth of the propositional content being communicated (see, for example, Chindamo et al. 2012); for other authors, the source of information / modes of knowing should also be included in the concept of epistemic stance (see for example, Ochs 1996). Our view is closer to the latter perspective: epistemic stance refers to both the epistemic (commitment) and the evidential (source of information)
positions which speakers assume during communication, and which they express through lexical and grammatical means ((Zuczkowski et al., 2014, 2017).

In the field of Conversation Analysis, the main frame of reference on epistemic stance is that of John Heritage and colleagues’ studies (see, for example, Heritage and Raymond 2005; Raymond and Heritage 2006; Heritage 2010, 2011, 2012a, 2012b, 2013, 2014; Stivers et al. 2011; Mondada 2013; Hayano 2014). In particular, regarding questions, these studies focus on the correlation between different question types and different knowledge gaps (different epistemic gradients) between a less knowledgeable questioner (K-) who lacks a piece of information, and a more knowledgeable answerer (K+) who has or is supposed to have that information. For instance, the different epistemic gradients established by questions such as (Q1) *Who did you talk to?* (wh-question), (Q2) *Did you talk to John?* (polar interrogative), (Q3) *You talked to John, didn’t you?* (tag question), (Q4) *You talked to John?* (declarative question) are illustrated in Figure 1:

![Figure 1. Epistemic gradient (Heritage and Raymond 2012: 181): distinctive epistemic gaps for four different question designs](image)

Along the epistemic continuum, running from K- (questioner’s knowledge) to K+ (answerer’s knowledge), the wh-question Q1 is the nearest to the questioner’s K- and the
farthest from the answerer’s K+, since a wh-question, “claiming no knowledge concerning the target state of affairs, expresses the largest knowledge gap and the steepest epistemic gradient” (Heritage and Raymond 2012: 181). Conversely, the declarative question Q4 is the nearest to the answerer’s K+ and the farthest from the questioner’s K-.

1.2 Dubitative questions

Question types have been extensively investigated in different disciplines focused on language study including linguistics, philosophy of language, anthropology, Conversation Analysis (Enfield et al. 2010), and from a range of perspectives: formal, functional, interactional being the most prominent (see, for example, Steensing and Drew 2008; Freed and Ehrlich 2010; de Ruiter 2012).

A systematic cross-linguistic overview of the pragmatics of questions and their responses in everyday conversations was carried out within the Multimodal Interaction Project at the Max Planck Institute for Psycholinguistics. This study aimed to qualitatively describe and quantitatively document the ways in which speakers design and use questions and responses in ten different languages from five continents (Stivers, Enfield and Levinson 2010). The team of ten researchers, each working on a different language, developed and used the same scheme for coding 350 question-response sequences, each in their own language-specific corpus of video-taped conversations in a range of dyadic and multi-participants interactions1. The details of the coding scheme, including explanations of each coding category, are described in Stivers and Enfield (2010). In line

1 “The coding scheme was developed through two cycles of pilot coding and evaluation, involving the application of draft coding categories to data from different languages, and collaborative discussion of conceptual and analytic issues that arose” (Stivers and Enfield 2010: 2620).
with previous studies (Quirk et al. 1985; Biber et al. 1999), three primary question types are identified: wh-questions, alternative questions and polar questions. The latter are further subdivided in three sub-types: polar interrogatives, tag questions, and declarative questions. The authors “feel that the scheme is empirically well-grounded and analytically well-motivated, and stands a good chance of usefully handling the kinds of distinctions in this domain that are likely to be relevant for any language in any cultural setting” (Stivers and Enfield 2010: 2620).

1.3 Point 7 of the coding scheme

The topic that most interests us, and from which we take our cue for the present paper, is of secondary importance in the coding scheme but is, in our view, of great theoretical importance from an epistemic perspective; it falls within the section of the coding scheme devoted to polar questions, which are defined as follows:

1.3.1 Polar questions: definition and sub-types

“A polar question is any question that makes relevant affirmation/confirmation or disconfirmation. It contains a proposition with two possible answers in semantic terms: true/the case versus not true/not the case. The question might involve a question particle, inversion, or a tag. It did not necessarily involve formal interrogative marking (as in a declarative question). It could be positive or negative” (Stivers and Enfield 2010: 2621).

Therefore, “polar questions are consistently said to be answered with a ‘yes’ or a ‘no’ in English. Interrogative, tag and declarative questions make up the dominant sub-types of polar questions” (Stivers 2010: 2773).
What attracted our attention within the section of the coding scheme devoted to polar questions was point number 7, which requires that the researcher, who has already coded a polar question in his/her own corpus, considers the following aspect:

“(7) Is the polar question dubitative (‘Maybe’) marked?

0=No
1=Yes
9=N/A (non-polar questions)

Among polar questions, if the question had a marker of doubt/uncertainty in it (e.g., ‘I wonder if’) then it was coded as dubitative. (This appears to be a grammaticalized way to do polar questions in some languages)” (Stivers and Enfield 2010: 2622).

The example markers maybe and I wonder if given in the above quotation seem to indicate that the authors are referring to lexical markers of doubt/uncertainty (from here on abbreviated to ULM, Uncertainty Lexical Marker), and that both direct (maybe) and indirect (I wonder if) questions are taken into account2.

In other words, as we understand it, a direct polar question seems to be coded as dubitative when it includes a ULM, for example the adverb maybe; an indirect polar question seems to be coded as dubitative when it is introduced by a ULM such as the verbal expression I wonder if. In short, polar questions seem to be coded as dubitative when they include a ULM, independently of whether they are direct or indirect.

What is said in parentheses at the end of the above quotation (Stivers and Enfield

2 When referring to questions, we use indirect as synonymous with embedded.
2010) leads us to assume that, at least in some languages\(^3\), speakers must use this "grammaticalized way" in order to make polar questions. In other words, they are constrained to do so by the rules of their grammar, which provides for that particular question design. Of course, this is not the case in English and in many other languages, including French, German, Spanish, and Italian, where a question does not require the presence of a ULM in order to be polar. Let us consider polar interrogatives, a sub-type of polar questions: in order to formulate a polar interrogative, English speakers only need to say, e.g., “Is it snowing outside?”, without any need for an additional dubitative adverb maybe, since English grammar envisages a morphosyntactic design (subject-verb inversion, rising intonation) which is the basic way of forming polar interrogatives\(^4\).

English speakers may also say “Is it maybe snowing outside?”, i.e. they choose to add a ULM to the basic morphosyntactic design. In other words, polar interrogatives may include a ULM, but do not have to: the presence of a ULM is not obligatory, only optional. It is precisely this point that requires further investigation from an epistemic perspective: why is it that in English and in many other languages, polar questions allow for the presence of a ULM, while other question types do not?

It is worth drawing attention to the fact that point 7 of Stivers and Enfield’s coding scheme is limited to polar questions (interrogatives, tags, declaratives): it is not extended to wh- and alternative questions. In other words, point 7 and the coding scheme as a whole seem to assume that only polar questions can be dubitative, i.e. include a ULM, while wh- and alternative questions cannot. If this is indeed the case, what explanation can

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\(^3\) Like, for example, in Tzeltal, a Mayan language (Brown 2010).

\(^4\) The terms grammatical and morphosyntactic are used synonymously.
As an initial quick answer, we can use Stivers and Enfield’s dubitative example markers *maybe* and *I wonder if* as linguistic tests by adding them to plain wh-questions e.g., “How is the weather outside?”. What emerges is that, generally, we can say neither “How is *maybe* the weather outside?” nor “*I wonder if* how the weather is outside”. So, the problem is to uncover why, from an epistemic perspective, wh-questions cannot be dubitative.

If we apply the same two tests to an alternative question like “Were you drunk or were you sober?”, we have “*I wonder if* you were drunk or you were sober” and, among other possibilities, “Were you *maybe* drunk or were you sober?” Both indirect and direct questions are possible, in plausible contexts. Thus, although the coding scheme seems to establish that only polar questions can be dubitative, alternative questions also have the potential to be so. Again, our interest lies in understanding why this should be the case.

Another related aspect concerns only dubitative questions (the group of polar question types and alternative questions): speakers can say both “Is it snowing outside?” and “Is it *maybe* snowing outside?”. The problem is to ascertain whether there is any epistemic difference between these two questions, i.e. between the dubitative question (with *maybe*) and its plain equivalent (without *maybe*)5.

Specifically, we are interested in uncovering whether the presence or absence of a ULM in polar interrogatives, tag, declarative and alternative questions changes anything in the questioners’ commitment, by enhancing or reducing uncertainty. Put more simply:

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5 From here on, questions without a ULM like “Is it snowing outside?” will be called *plain* questions while those with a ULM like “Is it *maybe* snowing outside?” (or like “*I wonder if* it is snowing outside” in the corresponding indirect form) will be called *dubitative* questions.
does a dubitative question express greater uncertainty than its corresponding plain question? To the best of our knowledge, these three problems have not yet been addressed with specific reference to epistemic stance.

1.4 Research questions

The present paper aims to address the aforementioned and intertwined problems from the perspective of epistemic stance, in line with Heritage’s general model which addresses epistemic status\(^6\) and epistemic stance\(^7\), a less knowledgeable (K-) questioner and a more knowledgeable (K+) answerer in the epistemic gradient. In particular, it asks: (1) why it is that polar and alternative questions may include a ULM, i.e. may be dubitative; (2) why wh-questions may not do so; (3) what empirical evidence can support the claim that both polar and alternative questions can be dubitative while wh-questions cannot, and (4) whether the presence of a ULM in polar and alternative questions indicates a different epistemic commitment compared to that expressed in the corresponding plain questions and, if so, what changes can be identified. Research questions 1 and 2 will be addressed in Part 1, which is devoted to plain questions. Research questions 3 and 4 will be addressed in Part 2, which is devoted to dubitative questions.

\(^6\) “[…] the distribution of rights and responsibilities regarding what participants can accountably know, how they know it, whether they have rights to describe it” (Heritage and Raymond 2005, 15).

\(^7\) “Epistemic stance concerns how speakers position themselves in terms of epistemic status in and through the design of turns at talk” (Heritage 2012b: 33).
2. Part 1: Why polar and alternative questions may be dubitative while wh-questions may not

2.1 A preliminary answer

Why polar and alternative questions may include a ULM while wh-questions may not, can be explored by proposing a distinction, within the K- position in Heritage’s model, between the questioner’s lack of information, i.e. lack of knowledge, on the one hand, and lack of certainty regarding the information, on the other. Different types of question design express either a lack of knowledge (= unknowledge, ignorance) or a lack of certainty (= uncertainty). Wh-questions convey a lack of knowledge concerning a wh-word. In contrast, polar interrogatives, tag, declarative and alternative questions express a lack of certainty concerning the truthfulness of a proposition; alternative questions do so with regard to two such propositions. In this sense, wh-questions are unknowing questions, i.e. they come from a specific epistemic stance that represents the questioner’s unknowing position. The other four types are uncertain questions, i.e. they come from an epistemic stance that represents the questioner’s uncertain position.

2.2 The uncertain position

The uncertain position includes everything that speakers communicate – lexically or morphosyntactically – as being uncertain, possible, probable, supposed, assumed.

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8 In our view, this distinction is implicit in Heritage and Raymond’s (2012: 180-181) statement: “the act of questioning, however it is managed, invokes a claim that the questioner lacks certain information (or lacks certainty about it). We will refer to this as a ‘K’-position.”
believed, doubted, suspected, etc. As these expressions suggest, as well as the strict sense of uncertainty expressed through negative particles and affixes, e.g., *I do not know whether...; I'm not sure that...; I'm uncertain about...*, etc., this epistemic position also encompasses possibility and subjectivity. *Possibility* is expressed by epistemic modals (*can, may, must, might, could*) referring both to present and possible (conditional) time, and with a range of epistemic adjectives and/or adverbs, e.g., *it is possible/probable*, etc. *Subjectivity*, i.e. the communication of the speaker’s point of view, is typically expressed with verbs of opinion (*I think, I suppose, I doubt, I guess*, etc.) and related expressions (e.g., *in my opinion, personally, in my view, to my mind*, etc.).

The uncertain position can be thought of as an epistemic continuum which ranges between two opposing poles of *not knowing whether p or non p* (NKW) and *believing that p* (B), where p stands for a proposition (see Figure 2).

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\text{I do not know whether p or non p} \quad \text{I believe p} \\
\text{(I am equally uncertain whether p is true or false)} \quad \text{(I am inclined to believe that p is true)}
\]

Figure 2: The two poles of the uncertain position

The NKW pole indicates the maximum degree of uncertainty (in the strict sense): the speaker does not know whether the information s/he is communicating is true or false. Sentences like *I do not know whether I’ll go to the movie or not* and *I do not know whether I’ll go to the movie or to the theatre*, i.e. whose design can be formally represented as *I do not know whether p or non p* and *I do not know whether p_1 or p_2*, usually express that p
and non \( p \), and \( p_1 \) and \( p_2 \), respectively, have an equal possibility of being true and that the speaker is equally uncertain about the two possibilities: no indication of considering one of the options as being more probable than the other is given; both options are possibly true to the same degree (50%-50%). This proportion represents the maximum degree of uncertainty.

The B pole, on the contrary, represents a lower, i.e. minimum, degree of uncertainty (uncertainty in the sense of speaker subjectivity): the speaker communicates the information as something s/he believes is true (or false). Sentences like *I believe that I’ll go to the movie*, i.e. sentences whose design can be formally represented as *I believe that \( p \)*, normally convey that, though the speaker does not know whether \( p \) is true or false, s/he is nonetheless inclined to believe that the explicit (lexicalised) positive alternative (\( p \)) is more likely to be true than the implicit (not lexicalised) negative one (non \( p \)). This design allows the speaker to indicate a preference for \( p \), which is assigned a higher degree of probability of being true than non \( p \). From equal probability (NKW pole) the speaker’s commitment moves gradually towards unequal probability (B pole), from maximum uncertainty to minimum uncertainty.

It is important to note the difference between *not knowing whether* (uncertainty / uncertain position) and *not knowing* (unknowledge / unknowing position): information which is communicated as unknown involves absence of knowledge (*I don’t know at all, I have no idea, I don’t have the faintest idea*) rather than beliefs or suppositions which are unconfirmed or uncertain. When communicated from the unknowing position, i.e. as unknown to the speaker, information is conveyed via its absence, for example when a speaker says *I do not know where Alex is* or asks *Where is Alex?*. Here the speaker is
communicating that s/he lacks information concerning the place where Alex is. Since the unknowing position is marked by the absence of information, it communicates neither certainty nor uncertainty both of which require the information to be present. The information gap characterising the unknowing position therefore corresponds to a commitment void: the speaker cannot commit her-/himself to that which s/he does not know.

Thus, when the speaker communicates information as certain, s/he also communicates it as something s/he knows to be true (knowing position); on the contrary, when s/he communicates information as uncertain, s/he also communicates it as something s/he does not know to be either true or false, or as something s/he believes is either true or false (uncertain position). When s/he communicates the information as neither certain nor uncertain, s/he also communicates it as unknown (unknowing position)\textsuperscript{9}.

From this perspective, communication may be seen as originating in the speaker, who assumes one of the three epistemic positions, and directed at the interlocutor, who in turn assumes one of the three. Indeed, the interlocutor can reply from any of the three epistemic positions, either aligning or misaligning with the speaker’s position (Riccioni et al. 2014; Vincze et al. 2016; Zuczkowsli et al. 2017).

\textsuperscript{9} In this paper, the term \textit{uncertain} is reserved for the corresponding epistemic position, while the term \textit{dubitative} is reserved for questions that include a ULM.
2.3 Aims of Part 1

The initial explanation given above, which offers a general picture as to why polar and alternative questions may include a ULM while wh-questions may not, will be discussed in greater detail over the next five sections, where particular reference will be made to the different epistemic positions those questions come from (unknowing vs uncertain position) and the different degrees of uncertainty (from not knowing whether to believing) existing within the uncertain position.

Section 2.5 aims to show that wh-questions come from the unknowing position, not the uncertain, and argues that this is why they cannot include a ULM.

Sections 2.6-2.9 aim to show that the epistemic design of alternative questions, polar interrogatives, tag and declarative questions is already uncertain at the morphosyntactic level as can be appreciated from the plain question forms, hence they come from the uncertain position. For this reason, they do not need a ULM in order to communicate uncertainty. This is also why, in principle, they may include it, since ULMs are perfectly compatible with the uncertainty already encoded in the plain question forms.

Additionally, sections 2.6-2.9 aim to show that the four types of questions are uncertain to variable degrees, each one occupying a different space on the epistemic continuum (Figure 2) which ranges between the poles of not knowing whether (NKW) and believing (B): alternative questions and polar interrogatives are closer to the NKW pole, while tag and declarative questions are closer to the B pole.
2.4 Methodology

In Stivers, Enfield and Levinson (2010), as we have said, ten different language-specific corpora of question-response sequences were analysed by ten different researchers, all following the same coding scheme. The American English corpus was analysed by Stivers (2010); for each question type, she cites at least one canonical example taken from the corpus.

We will treat these examples as representative of the five question types we are going to discuss from the perspective of epistemic stance, using them as a basis from which to address our investigations. In a similar vein, the definitions of the different question types are for the most part taken from Stivers (2010) and Stivers and Enfield (2010).

The sections that follow all have the same organisational structure: definition of the specific type of question under examination; quotation of one example taken from Stivers (2010); epistemic analysis and discussion of the example.

2.5 Wh-questions

Definition:

“A content or ‘Q-word’ question (or ‘WH’ question) is where part of a proposition is presupposed, and the utterance seeks the identity of one element of the proposition. Thus, in ‘Who stole my newspaper’ it is presupposed that ‘Someone stole my newspaper’, and the purpose of the question (at least nominally) is to ascertain the identity of the person corresponding to this ‘someone’” (Stivers and Enfield 2010: 2621).
Example (1)

“Here a man and a woman are discussing the cost of boxing training – something Jess has been asking questions about over the past several sequences” (Stivers 2010: 2773).

Jess: How much does it cost tuh just (.) like (.) train.

(0.9)

Mike: Sixty nine.

(Stivers 2010: 2775)

For our purposes, in Jess’s question the phonetic transcription *tuh* and the expression *just like* are superfluous. Thus, for simplicity’s sake, we can reduce Jess’s question as:

*How much does it cost to train?*

According to the definition quoted above, example (1) linguistically presupposes that to train costs something, i.e. that the proposition *to train costs something* is true (Heritage 2010: 47-48)\(^{10}\). Since Jess does not know how much it costs and is interested in knowing, she poses a question which seeks to establish the identity of one element (*how much*, the cost of the boxing training) and whose purpose is to ascertain the quantity of money corresponding to *how much*. In this sense wh-questions are information-seeking

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\(^{10}\) As regards presuppositions and truth in pragmatics, see also Lyons (1977); Levinson (1983) Chapter 4; Clayman (1993); Clayman and Heritage (2002); Heritage (2003).
questions: they expect an open-ended answer, that provides information on the specific wh-word featured in the question.

In example (1), Jess is seeking a piece of information she does not possess (K-, in Heritage (2014) terminology) and Mike is assumed to have (K+). This piece of information is entirely unknown to Jess; it is missing, absent, an information void. She asks for information belonging to Mike’s epistemic domain (Heritage 2014) because he knows (or is expected to know) the cost. In this sense, Jess’s question comes from her unknowing position and is directed to Mike’s knowing one. Mike’s answer (Sixty nine) aligns with Jess’s expectations. Indeed, Mike replies from a knowing position by indicating the amount.

Jess’s epistemic position (unknowing) is made explicit if we transform the direct interrogative (How much does it cost to train?) into the corresponding indirect one, using the introducing verb to know (Biber et al. 1999: 976):

(a) I do not know how much it costs to train

The expression I do not know signals Jess’s total lack of knowledge (ignorance) concerning how much. Thus, in a formal way, the epistemic design of wh-questions may be represented as follows:

(a₁) I do not know + p
where p is the proposition that constitutes the question, in our case *how much it costs to train*.

### 2.6 Alternative questions

**Definition**

Alternative questions include “the proposal of a restricted set of alternative answers in their formulation (e.g., ‘Were you drunk or were you sober.’ or ‘Do you want corn or flour tortillas.’)” (Stivers and Enfield 2010: 2622), i.e. they are “designed to provide the recipient with two or more options to choose from for the answer” (Rossano 2010: 2758).

**Example (2)**

Stivers’ (2010: 2775) example (below) is incorporated into the definition just provided:

Lanie: Were you drunk or were you sober?

Ingrid: I wasn’t- I wasn’t sober but ( )

In example (2), Lanie asks Ingrid to choose between the two alternatives. The question design conveys that, for Lanie, either of the two is *equally possible*, she is *equally uncertain* between them and Ingrid’s response is expected to reveal which of the two is true. The expressions *equally possible* and *equally uncertain* mean that, in using such a question design, Lanie recognises that both options are possibly true to the same degree:
she gives no indication of considering one of the options as being more (or less) probable than the other.

This proportion (50%-50%) represents the maximum degree of uncertainty, in the sense that there is equal probability of both alternatives being true. Alternative questions can therefore be seen as coming from the *not knowing whether* pole of the uncertain position. Such questions are *information*-seeking rather than *confirmation*-seeking, in that the questioner’s expectations concerning the interlocutor’s response are *neutral* (both alternatives are expected to the same degree), not oriented in favour of either $p_1$ (*you were drunk*) or $p_2$ (*you were sober*).

If we transform the direct question *Were you drunk or were you sober?* into the corresponding indirect one, again using the verb *to know*, from an epistemic perspective we have:

\[(b) \ I \ do \ not \ know \ whether \ you \ were \ drunk \ or \ you \ were \ sober\]

More formally, the epistemic design of alternative questions may be represented as follows:

\[(b_1) \ I \ do \ not \ know \ whether \ + \ p_1 \ or \ p_2\]

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11 There is a second type of alternative question whose design is $p \ or \ non \ p \ ?$, e.g. *Will you go to the movie or (will you) not?*, where the second alternative (you will *not* go to the movie) is the negation of the first one (you will go to the movie). This second type of alternative question is not mentioned in Stivers and Enfield (2010), probably because it is included by the authors in the first type of alternative question, but it is very interesting also in order to understand the two possible different readings of the design of polar interrogatives, as we will see in the next section.
where $p_1$ is the first alternative provided by Lanie to Ingrid (you were drunk) and $p_2$ the second (you were sober).

What both representations have in common is the expression *I do not know whether…or…*, which makes explicit the questioner’s epistemic position and conveys effectively the sense of epistemic uncertainty between the two alternatives that the questioner is faced with.

If we were to place *I do not know* before $p_1$ and $p_2$ (see section 2.5), this would give rise to a grammatically unacceptable sentence:

* I do not know you were drunk or you were sober

The expression *I do not know* suits wh-questions only; it does not suit alternative questions nor does it suit polar interrogatives, tag and declarative questions, which instead require *I do not know whether*.

The transformation from direct to indirect questions with their suitable epistemic complement (*I do not know* vs *I do not know whether*) can be considered a linguistic test aimed at checking whether a question is unknowing or uncertain.

In this sense, alternative questions can be thought of as *uncertain*: they express a lack of certainty concerning two alternatives, rather than a lack of knowledge. Wh-questions, on the other hand, communicate lack of knowledge concerning a wh-word. In wh-questions, the questioner aims to find out an unknown element (how much does it cost?) within a state of affairs presupposed to be true, i.e. as known (it costs something). In alternative
questions, however, the matter at hand is to find out which of two possible states of affairs is true\(^{12}\).

In example (2), Lanie does not know whether Ingrid was drunk or sober; she is interested in finding out something that only Ingrid knows since it belongs to her own epistemic domain of knowledge. Since Ingrid has chosen one of the two provided alternatives as her answer, claiming that she was not sober, her reply aligns with Lanie’s expectations.

To sum up, Lanie’s question comes from the *not knowing whether* pole of her uncertain position, while Ingrid’s answer comes from her knowing position.

### 2.7 Polar interrogatives

**Definition**

“With a polar question – e.g., *Is it still snowing outside?* – a speaker makes reference to a complete proposition (in this case, ‘It’s still snowing outside’), and expresses a lack of knowledge as to the truth of this proposition. A typical communicative function of a question is to induce the addressee to state whether the proposition is true (*yes* or equivalent) or false (*no* or equivalent)” (Enfield et al. 2012: 193).

**Example (3)**

Stivers (2010: 2774) gives one canonical example of polar interrogatives:

\(^{12}\) Of course, neither is necessarily true: the interlocutor might propose an intermediate or ulterior possibility, such as “I only had one beer” to “Were you drunk or were you sober?”, or “I’d prefer rice” to “Do you want corn or flour tortillas?”
"Here a couple is having dinner and Kim, following a lapse in the conversation, asks about the broaching of a topic among Mark’s co-workers:

Kim: So did anybody say anything about thuh bar tuhday?

(2.0)
Mark: Yeah,

( )
Mark: Customers.

The question involves both the inversion of the do-auxiliary and the shift from the assertive forms ‘somebody’ and ‘something’ typical in the declarative context to the non-assertive ‘anybody’ and ‘anything’ typical of the interrogative context (Quirk et al. 1985).

For our purposes, in Kim’s question the discursive marker so and the phonematic transcriptions thuh and tuhday are superfluous. Thus, for simplicity’s sake, we can reformulate Kim’s question as:

*Did anybody say anything about the bar today?*

Following Enfield et al.’s definition, quoted above, the complete proposition p referred to by the speaker in this question is *somebody said something about the bar today*. Kim’s *uncertainty* here regards whether p is true or false. In this case, truth and falsehood refers to just one proposition, not to two as in alternative questions. It is as if the question were:
Is it true or false that somebody said something about the bar today? Different from wh-questions, where p is presupposed to be true, and similar to alternative questions, where both options are possibly true, the question design of example (3), and of polar interrogatives in general, leaves two possibilities open (Heritage 2010: 47), that p is true and that p is false, and conveys that, for Kim, as for Jess’s alternative question in the previous section, either of the two alternatives is equally possible, i.e. that Kim is equally uncertain between the two possibilities. Mark’s response is expected to let her know which one is true. If Mark’s reply is yes, then p is true, which means that somebody said something about the bar today. Conversely, if Mark’s reply is no, then p is false, which means that nobody said anything about the bar today. Since nobody said anything about the bar today is the negative opposite of p, the alternatives in polar interrogatives may also be thought of as being p or non p. In this sense, example (3) expresses the questioner’s uncertainty about which of the two propositions is true: p or non p? It is as if the question were: Did anybody say anything about the bar today, or did nobody say anything about the bar today? The implicit alternative can be abbreviated as or not (i.e. Did anybody say anything about the bar today, or not?). Only one of the two alternatives is made explicit (the positive one, p)\(^\text{13}\).

\(^{13}\) Possibly for these or similar reasons, in the linguistic literature there are two opposite views on the design of polar interrogatives: some authors (Coleman, 1914; Palmer, 1922; Dietrich, 1937; Katz and Postal, 1964; Stockwell, Schachter and Hall Partee, 1968; Harris, 1968; Langacker, 1970; etc.) suggest that a polar interrogative is nothing but an incomplete alternative question, i.e. a special type of alternative question in which the second alternative (or not) has been suppressed and remains implicit, not lexicalised. Bolinger (1957, 1978), on the contrary, claims that a polar interrogative advances a hypothesis for confirmation: it “hypothesizes that something is true and confirmed, amended, or disconfirmed by an interlocutor” (Bolinger 1978, 102). Both readings are plausible in principle, in the sense that, due to the context in which they occur, their turn sequential position and propositional content, some polar interrogatives seem to fit better in
Thus, if we transform the direct question *Did anybody say anything about the bar today?* into its corresponding indirect one, again using the introducing verb *to know* in such a way as to make Kim’s epistemic position explicit (Biber et al. 1999), we have:

(c) *I do not know whether* anybody said anything about the bar today *(or not)*

Since *or not* is the abbreviation of *or non p*, the *epistemic design* of polar interrogatives may be represented in a more formal way as:

(c₁) *I do not know whether* + p *(or non p)*

In this case too, as in alternative questions, the suitable expression to be placed before p is *I do not know whether*. If we placed *I do not know* before p, as we did with wh-questions, we would end up with a grammatically unacceptable sentence:

* *I do not know* anybody said anything about the bar today

Analogously to alternative questions, what the above representations (c₁) and (c₂) have in common is the expression *I do not know whether… or…, which conveys a sense of epistemic uncertainty between the two alternatives that the questioner is faced with.*

In this respect, polar interrogatives and alternative questions are similar, but they differ

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Coleman’s reading, while some others seem to fit better in Bolinger’s. Evidence for these two different readings is given by Stivers’s quantitative results (2010: 2776, Table 3).
in terms of (i) explicitation (lexicalization) of the alternatives, and (ii) obligation to feature polar opposites: in alternative questions the alternatives $p_1$ and $p_2$ are both explicit, lexicalised, and their semantic content is, in principle, different, e.g., Do you want corn or flour tortillas?, such a difference can, however, include semantic opposition, i.e. drunk / sober in Were you drunk or were you sober?. In polar interrogatives, the alternatives $p$ and non $p$, i.e. a positive and its negative counterpart, are grammatical opposites, in the sense that the second contains non. Of course, the presence of such alternatives ($p$ or non $p$) also accounts for the fact that polar interrogatives are expected to be answered with a yes or no.

This is not the case for alternative questions, whose design constrains the interlocutor to answer by specifying which alternative is chosen ($p_1$ or $p_2$): such questions cannot be answered simply with a yes or with a no. However, in both types of questions the questioner’s expectations are neutral: Lanie’s alternative question (example (2)) is not oriented more in favour of $p_1$ than of $p_2$; nor is Kim’s polar interrogative (example (3)) oriented more in favour of $p$ than of non $p$, i.e. yes more than no (or vice versa). Either type of answer is expected in equal measure.

Kim’s question is directed at Mark’s knowing position (Mark knows the information, he is the more knowledgeable of the two, in Heritage’s terminology). In providing the required information from his knowing position (Yeah. Customers), he aligns with Kim’s expectations.
2.8 Tag questions

Definition

Tag questions are “declaratively formatted turns that assert a proposition and add a ‘turn-final element’ that marks questionhood: these turn-final elements include question particles (e.g., Japanese ka), lexical items (e.g., ‘Right’ or ‘Yeah?’) or ‘tag’ type clauses (e.g., ‘Don’t ya think?’ or ‘Did she?’)” (Stivers and Enfield 2010: 2622).

Indeed, a tag question is typically “a way of requesting information, normally confirmation of the assertion made in the declarative component of the utterance” (Heritage 2012a: 14).

Example (4)

One of the two examples given by Stivers (2010: 2774) is the following:

Kim: (Very good.)

(6.5)

Mark: Not bad for free huh?

(0.3)

Kim: Hm mm

Mark’s question, like all tag questions, is formed by a declarative component (Not bad for free) and a tag component (huh?). At the beginning of the declarative component, the expression It is is implicit, so the tag component can be understood as equivalent to is it?,
the whole question thus resulting in *It is not bad for free, is it?* Kim’s answer (*Hm mm*) can be understood as equivalent to *Yes, yes.*

The declarative component (*It is not bad for free*) is an assertion coming from the knowing position. In particular, since it includes the expression *it is not bad*, the assertion is an evaluation, concerning a matter that is subject to opinion (Stivers gives no contextual information). To be clear, such an assertion is different from Heritage’s example *You talked to John, didn’t you?* (section 0.1), where the assertion is factual, not evaluative. As for the tag component *is it (bad for free)?*, it is a question in itself, the very ‘question part’ of the whole tag question: in isolation, it would be a polar interrogative and its epistemic design would be *I do not know whether (or not) it is bad for free* (uncertain position).

The global meaning of the whole tag question is somewhat different from the simple sum of the two component parts (an assertion and a polar interrogative), it is something more. Indeed, the tag element, placed immediately after the assertion, retrospectively colours the assertion with a tinge of supposition. The assertion no longer comes from the knowing position: if it came from the knowing position, the result would be a tag question like (*I know that it is not bad for free, is it?*) that would be incongruous. The assertion, when followed by the tag component, becomes a supposition: (*I think that it is not bad for free, is it?*) This reading of the assertion as a supposition is bolstered by the fact that the assertion is evaluative.

The question design conveys that, between the possible alternatives non p (it is not bad for free) and p (it is bad for free), Mark is inclined to think that non p is more likely than p. The lexicalised negative alternative *it is not bad for free*, i.e. the alternative that Mark makes explicit, is the one he is more inclined to believe true. Being a supposition, he asks
for confirmation. As Heritage (2010: 48) claims, in comparison with a polar interrogative, a tag question “conveys a strong hunch as to the likelihood of a particular response and a shallower “K- to K+” epistemic gradient”. Thus, in our case, *asking for confirmation* means that Mark wants to know whether Kim shares his supposition (or not), i.e. whether Kim also thinks that it is not bad for free. The expected, preferred response is *yes*. Mark hopes that Kim shares his supposition. By answering affirmatively, Kim confirms this.

The whole question-answer pair can be paraphrased as follows:

*Mark*: I think that it is not bad for free, and I do not know whether you think the same as I do, that it is not bad for free, or whether instead you think, differently from me, that it is bad for free.

*Kim*: Yes, I share your supposition, I think, like you, that it is not bad for free.

The epistemic design of Mark’s question can be represented as:

(d) *I do not know whether* it is not bad for free (*or it is*), but I am inclined to believe that it is not.

The expression *I am inclined to believe that*… indicates that the questioner is advancing a supposition. More formally, the epistemic design of tag questions may be represented as follows:

(d₁) *I do not know whether* + p (or non p) but *I am inclined to believe that* p
In the epistemic continuum of the uncertain position, Mark’s question comes from a point nearer to the believing (B) than to the not knowing whether (NKW) pole and it is addressed to an equivalent point in Kim’s uncertain position\(^{14}\). Kim’s answer functions in the same way. Therefore, the question-response pair is aligned (B-B) and Kim’s response is Mark’s preferred one: questioner and answerer share the same opinion.

Our reading of these tag questions that, like Mark’s one, are addressed to the interlocutor’s believing position rather than to the knowing position, as in Heritage’s example *You talked to John, didn’t you?* (section 0.1), is more evident in the second example given by Stivers (2010: 2774), since both the tag element and the interlocutor’s response include the verb *to think*:

**Example (5)**

Jess: That’s kind of a lot for breakfast don’t=ya think?,

Mike: Nah::, I thin’ iz- I think it’s great

For our purposes, the presence of *kind of* in the declarative component of Jess’s question is superfluous. Since *That’s* is equivalent to *That is* and *don’t=ya think?* to *don’t you think?*, we will use the clean version of Jess’s question *That is a lot for breakfast, don’t you think?*.

The declarative component is an evaluative assertion as previously in example (4) (*that is a lot for breakfast* sounds like *that is (possibly too) much for breakfast*). The

\(^{14}\) For simplicity’s sake, we say that the question comes from the believing pole of the uncertain position; to simplify further, we say that it comes from the uncertain position.
embedded clause \[ \text{that's a lot for breakfast} \] is implied in \textit{don't you think?}, this turn-final element being properly defined as an “imputation” (Bolinger 1957: 18) rather than a tag proper as Stivers and Enfield (2010) suggest. Imputations, unlike tag questions featuring auxiliary verbs, are subordinate to a superordinate clause and may “be inverted with little change in meaning” (Bolinger 1957: 18-19). In other words, \textit{That is a lot for breakfast, don't you think?} is equivalent to \textit{Don't you think [that] that is a lot for breakfast?}, the only perceptible difference being that fronting the superordinate clause makes it more prominent.

Thus, the proposition \( p \) that Jess makes reference to in \textit{don't you think?} is \textit{you do not think [that] that is a lot for breakfast} (note that the introducing proposition is negative, while the embedded one is positive). This is equivalent to \textit{you think [that] that is not a lot for breakfast} (here the introducing proposition is positive, the embedded one is negative, cf. for instance Bolinger 1957: 94).

The epistemic design of Jess’s question can be represented as

I do not know whether \textit{you think [that] that is a lot for breakfast} (or \textit{you think [that] that is not a lot for breakfast}), but I am inclined to believe that it is

Such a representation shows that the real alternatives are two opposite opinions (\textit{you think that…}) and that the questioner is advancing a supposition in favour of the positive one.

As in example (4), here too the tag element contributes a nuance of supposition to the declarative component. The question design conveys that, between the two possible alternatives, Jess is inclined to think that the lexicalised (positive) one \textit{that is a lot for breakfast}
breakfast is more likely to be true than the implicit (negative) alternative and she hopes that Mike will also share her supposition. Jess’s whole question can be paraphrased as follows: I think that it is a lot for breakfast (declarative component), and I do not know whether you also think that it is a lot or whether instead you think, differently from me, that it is not (tag component). Thus, she asks for confirmation of her supposition. The expected, preferred answer from Mike would be “Yes! I think, as you do, that it is a lot for breakfast”. Instead, Mike’s answer is “No!” (= I don’t think, unlike you, that it is a lot for breakfast), which is equivalent to “Differently from you, I think that it is not a lot for breakfast”. Indeed, after the negation he adds the follow-up “I think it is great”, which explicitly communicates an opinion (I think) that is the opposite of Jess’s.

From an epistemic perspective, Jess’s question comes from a point nearer to the believing pole of her uncertain position and it is addressed to an equivalent point in Mike’s uncertain position. So is Mike’s answer. Question and answer are thus formally aligned from the epistemic point of view (B-B), but there is no agreement: the content of Mike’s answer is not what Jess wants to hear, i.e. it is the dis-preferred reply (Pomerantz and Heritage 2014).

2.9 Declarative questions

Definition

“These utterances can be considered questions because of what they are about and because they make relevant a yes or no answer after their production […]. In these cases, if the speaker ‘states’ something s/he cannot know as well as the recipient, confirmation or
disconfirmation by the recipient is relevant and the latter typically treats the utterance as a question” (Rossano 2010: 2762).

If we return to Heritage’s epistemic gradient in Figure 1 (section 1.1), the declarative question Q4 *You talked to John?* is the farthest from the questioner’s K- position and the nearest to the answerer’s K+ position. Q4 “asserts a possible answer to the question with some degree of certainty, and thus embodies a much smaller (or flatter) epistemic gradient. In general, declarative questions claim a more nearly equal epistemic footing with the respondent than do interrogatives\(^{15}\), and are more frequently used to seek confirmation for information that is already ‘in play’” (Heritage and Raymond 2012: 181).

“This latter format is predominantly used when the speaker has already been told (or independently knows) the information requested and merely seeks to reconfirm or alternatively to convey inferences, assumptions, or other kinds of ‘best guesses’” (Heritage 2010: 48-49).

**Example (6)**

The following example (Stivers 2010: 2774) is the continuation of example (1): Mike has just told Jess that the boxing training costs sixty-nine dollars a month and that it takes place six times a week.

Jess: I don’t think so.

(0.5)

Mike: >You ‘on’ wanna do that.<

\(^{15}\) With the term *interrogatives* here Heritage is referring to the other types of question Q1, Q2 and Q3.
Jess: No::t ((head shaking)) thuh six days uh wee:k (_()

But I mean I wanna do it,

Jess (*I don’t think so*) seems to lose interest in the boxing training: it is expensive and, most of all, requires attendance virtually every day. Mike follows up with a declarative sentence (*You don’t wanna do that*) that communicates what he has inferred from Jess’s previous turns: he assumes that she intends to give up on the idea of boxing training.

In isolation or in a different turn sequence, *You don’t wanna do that* would be an assertion coming from the knowing position, since it includes no uncertainty markers, whether lexical or morphosyntactic, and does not feature inversion. However, given its particular place in the turn sequence (after Jess’s *I don’t think so* and previous turns) and its specific semantic content, i.e. that it concerns Jess’s intentions, a territory in which only Jess has epistemic primacy (Heritage and Raymond 2005; Raymond and Heritage 2006), the assertion sounds more like a best guess (uncertain position).

Compared to a tag question, the declarative question *You don’t wanna do that* “proposes a still stronger commitment to the likelihood that the respondent [...]” does not want to do that “and a correspondingly shallow “K- to K+” epistemic gradient” (Heritage 2010: 48). In other words, Mike’s epistemic commitment towards the truth of *p* is very high, close to certainty, i.e. to his knowing position: he is almost, but not completely, certain that *p*, therefore he asks for confirmation. This is why Jess interprets Mark’s turn as a declarative question, i.e. as a request for confirmation of the validity of his best guess, despite the lack of both the rising tone (as in the case of a polar interrogative) and tag component (as in the case of a tag question). As a result, she replies from her knowing
position that she wants to do boxing training but not six times a week.

For our purposes, it can be useful to compare the declarative question in example (6), and the corresponding assertion. The difference between them can be explained as follows. The simple assertion comes from a knowing position and can be paraphrased as: I tell you that *I know* that you don’t wanna do that. If the same sequence of words is functioning as a declarative question and not simply as an assertion, the questioner must have at least a minimum degree of uncertainty. Such a question can be paraphrased as: I tell you that *I'm almost but not completely certain* that p, therefore I ask you for confirmation. In this sense, declarative questions also come from the believing pole of the uncertain position, which is the closest to the knowing position. Mike cannot be sure about Jess’s intentions, but he has a strong hunch in this respect.

Figure 3 summarises the main points made in Part 1:

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Figure 3: Questioner's unknowing and uncertain positions, questions design and their functions. Polar interrogatives can be either information or confirmation seeking (see footnote 13)
3. Part 2: Are dubitative questions more uncertain than plain questions?

3.1 Aims

Part 2 answers research questions 3 and 4 outlined in section 1.4: what empirical evidence can support the claim that polar and alternative questions can be dubitative while wh-questions cannot; and what effect the presence of a ULM in polar and alternative questions has on the questioners’ epistemic commitment, as compared to the corresponding plain questions.

3.2 Methodology

In order to answer research question 3, Stivers and Enfield’s linguistic tests *maybe* and *I wonder if* (section 1.3.1) are systematically applied to examples 1-6 discussed in Part 1. An additional corpus-based study of the use of *maybe* and *I wonder if* in the five question types offers empirical support for our claims.

To answer research question 4, plain questions are compared with their corresponding dubitative ones.

3.3 Dubitative wh-questions

The problem of whether wh-questions can be dubitative was touched upon in section 1.3.1 and the answer was negative (““How is *maybe* the weather outside?”). Subsequently, in section 2.4, it was shown that wh-questions come from the unknowing position, and it is for this reason that they cannot be dubitative.
If we apply the *maybe* test to Jess’s question *How much does it cost to train?*, we have, in principle, five possible dubitative versions, none of which is grammatically acceptable, irrespective of where *maybe* is inserted:

* *Maybe how much does it cost to train?*
* *How much maybe does it cost to train?*
* *How much does it maybe cost to train?*
* *How much does it cost maybe to train?*
* *How much does it cost to train maybe?*

As seen in section 2.5, this can be explained by reference to the function of wh- questions, i.e. that they “ask for specification of an unknown element” (Biber et al. 1999: 208). In the example question, the speaker indicates clearly via the syntax that she is certain that training has a cost, but ignorant of the precise nature of that cost in terms of dollars. Modalising such a question would be incongruous, since it would re-frame the definite but unspecified element (the cost) as indefinite or uncertain, thus undermining the communicative intention of the question.

The application of the *I wonder if* test also results in an unacceptable sentence:

* *I wonder if* how much it costs to train

If, on the contrary, we add only *I wonder*, the resulting indirect question is acceptable:
I wonder how much it costs to train

The linguistic behaviour of the two expressions *I wonder* and *I wonder if* is similar to that of *I do not know* and *I do not know whether*, respectively (see section 1.6). The former expressions (*I wonder* and *I do not know*) suit only wh-questions, while the latter (*I wonder if* and *I do not know whether*) suit only polar and alternative questions. Thus, Stivers and Enfield (2010) are correct in not extending point 7 of their coding scheme to wh-questions. They cannot be made dubitative, i.e. they cannot admit the presence of a ULM, because they come from the *unknowing* position, not the *uncertain*.

As said at the end of section 2.6, wh-questions do not refer to questioners’ uncertainty between two alternatives, but to their ignorance regarding a particular piece of information which is known to exist: the wh-word acts as a pro-form for that information. Everything is known, certain, except for one element, leaving one piece of the questioner’s cognitive jigsaw missing: in the example provided, this is *how much* the training costs. The unknown element cannot be cast into doubt, because it is presupposed to be true (i.e. training costs something), rather than merely possible, or uncertain (*maybe* training costs something, *maybe not*). For this reason, wh-questions cannot include a ULM. The definite but unspecified element marked by the wh-word allows for no uncertainty, only un-knowledge.

### 3.4 Uncertain questions and corresponding dubitative forms

In the following sections, the *maybe* and *I wonder if* tests are applied to all four types of question that come from the uncertain position to show that, for this reason, they can admit a ULM. The further aim is to uncover any changes in the questioner’s epistemic
commitment when using such questions, in comparison with their corresponding plain questions.

Concerning this latter aim, it is plausible to advance two hypotheses. The first is that the insertion of *maybe* would neither enhance nor diminish the degree of uncertainty: the plain question is already uncertain at the morphosyntactic level, so the adverb would be superfluous, redundant. The presence of a ULM would therefore have no epistemic weight in such questions, plain and corresponding dubitative questions being equally uncertain to the same degree. The second hypothesis is that adding *maybe* would increase the uncertainty: one morphosyntactic marker of uncertainty (the plain question) plus one lexical marker of uncertainty (the adverb *maybe*) would double the uncertainty, thus making the dubitative versions more uncertain than the plain questions.

Sections 3.5-3.8 give a negative answer to the first hypothesis: the questioner’s commitment is not indifferent to the presence of *maybe*. Moreover, as regards the second hypothesis, it is shown that, while tag and declarative questions, which come from the B pole, indeed become *more uncertain*, alternative questions and polar interrogatives, which come from the NKW pole, become, paradoxically, *less uncertain*.

### 3.5 Dubitative alternative questions

Stivers and Enfield (2010) make no mention of *dubitative alternative questions* in their description of alternative questions, although they do in principle exist (see section 1.3.1).\(^{16}\) Alternative questions admit the presence of a ULM, because their

\(^{16}\) We presume that none were present in their data, thus giving no reason for the authors to mention them in their coding scheme.
morphosyntactic design is already uncertain. Indeed, if we apply the *I wonder if* test to Lanie’s question *Were you drunk or were you sober?* (example (2), section 2.6), we have an acceptable sentence:

*I wonder if* you were drunk or you were sober

If we apply the *maybe* test, we achieve the following acceptable dubitative questions:

(2a) Were you *maybe* drunk or were you sober?
(2b) Were you drunk *maybe* or were you sober?
(2c) Were you drunk or were you *maybe* sober?
(2d) Were you drunk or were you sober *maybe*?

In these examples, we see that *maybe* can occur in clause-medial or -final position, in either one of the two clauses. These positions affect the meaning. In (2a) and (2c) the medial position restricts the scope of *maybe* to the adjective immediately following, while in (2b) and (2d) *maybe* in clause-final position extends over the entire clause to which it belongs. It must be stressed, however, that it does not range over the complete, dual-clause proposition (alternative questions being composed of two juxtaposed clauses): the presence of the coordinating *or* blocks the extension of the modal meaning beyond the clause in which it occurs.

Interesting pragmatic inferences may emerge, as in this particular example, which addresses a theme – drunkenness and sobriety – which is associated with strong cultural
norms. In both (2a) and (2b), *maybe* interacts with the adjective *drunk*, conveying the notion that this is not a habitual state. In (2c) and (2d), it is *sober* that is presented as not being the normal state, hence the inference that the interlocutor is presumed to be a habitual drinker\(^{17}\).

From an epistemic perspective, some differences emerge between the plain alternative question and its dubitative versions. In the first place, the addition of *maybe* to either one of the alternatives converts it into a *supposition*. This seems to have the function of conveying to the interlocutor that, between the alternatives \(p_1\) and \(p_2\), the questioner is inclined to believe that the modalised one is more likely than the other. In other words, the addition of *maybe* allows the speaker to indicate a preference for one of the two options proposed and encourages the interlocutor to favour the alternative that has been framed as dubitative.

Plain alternative questions come from the NKW pole, where the degree of uncertainty between the two alternatives is in perfect equilibrium (section 2.6). The addition of *maybe* upsets this balance by favouring the modalised alternative. In Lanie’s plain question, \(p_1\) and \(p_2\) are equally possible: when *maybe* is added, the modalised alternative has more probability of being true than the other. Contrary therefore to the hypothesis that the addition of a ULM like *maybe* to a plain alternative question would increase its degree of

\(^{17}\) It goes without saying that, because of the semantic meaning of the adjectives and the pragmatic inferences that these give rise to perhaps both (2c) and (2d) are less likely to occur in real speech than (2a) or (2b). In principle, however, and in other contexts with other expressions, the modality could be positioned in either of the two clauses, in medial or final position, although Biber et al. (1999: 872) note that placing stance adverbials in final position is typical of conversational English.
uncertainty, modalised alternative questions seem to be *less uncertain* than their plain equivalents.

Since this may seem counter-intuitive, let us lay bare its mechanisms. If the NKW pole (and the plain alternative questions coming from it) is understood as maximum uncertainty, the addition of *maybe* cannot increase that maximum (there can be no ‘more than maximum’!). There is no further uncertainty beyond the NKW pole, i.e. beyond that side of the uncertain epistemic continuum which represents maximum uncertainty. It is here that the unknowing position begins.

The presence of a ULM appears to push alternative questions from the NKW pole in the direction of the B pole where tag questions lie. The questioner adds *maybe* to indicate a preference for the modalised alternative and, in doing so, his/her commitment shifts from equal probability towards unequal probability. Simultaneously, his/her epistemic position is no longer one of maximum uncertainty, but of lower uncertainty (or greater certainty), and the function of the question is less information-seeking than confirmation-seeking (see Figure 4). The expected answer, in turn, is no longer neutral but favours the modalised alternative over the non-modalised one.

### 3.6 Dubitative polar interrogatives

In section 1.3 we saw that, in English, polar interrogatives (“Is it snowing outside?”) can be made dubitative (“Is it *maybe* snowing outside?”). Epistemically speaking, this is possible because they come from the questioner’s uncertain position. Indeed, in section 2.7 we demonstrated that the epistemic design of polar interrogatives is already uncertain at the
morphosyntactic level, i.e. even without the presence of a ULM. For the same reason, they may admit a ULM, i.e. they can be made dubitative.

If we apply the *maybe* test to Kim’s plain polar interrogative *Did anybody say anything about the bar today?* (example (3), section 2.7), we can make it dubitative in a number of ways, some of which are more acceptable than others:

(3a) Did anybody *maybe* say anything about the bar today?
(3b) Did anybody say anything about the bar today, *maybe*?

The meanings that arise in (3a) and (3b) differ slightly depending on the position of *maybe* in the sentence. As we explained in the previous section, the scope of some adverbials covers the entire proposition in a clause, while in others its range is restricted, focusing on one particular clause element (Biber et al. 1999: 775). In (3a), medially-positioned *maybe* focuses the modality on the verb *say*. If placed in final position, as in (3b), its scope extends over the entire proposition, focusing on no clause element in particular.

As far as the *I wonder if* test is concerned, its application to example (3) also gives an acceptable sentence:

*I wonder if* anybody said anything about the bar today (*or not*).

It now remains for us to investigate what differences there are, from an epistemic perspective, between the plain polar interrogative (3) and its dubitative versions (3a) and
The situation is similar to the one described in connection with dubitative alternative questions (section 3.5).

In Kim’s plain polar interrogative *Did anybody say anything about the bar today?* (section 2.7), both alternatives (the explicit p, *somebody said something*, and the implicit non p, *nobody said anything*) are equally possible, have the same probability of being true. For this reason, they are information-seeking: questioners’ expectations are neutral with respect to a *yes* or a *no* response.

The addition of *maybe* makes the explicit p a supposition (*maybe somebody said something*), i.e. gives it more probability of being true. As a result, p and non p, which in Kim’s plain question were equally possible, are no longer *equally possible* in the modalised question. The dubitative question design conveys that the modalised alternative (*Did anybody maybe say anything about the bar today?*) is *more likely* to be true than the plain, i.e. non modalised, question (*Did anybody say anything about the bar today?*).

As we saw in section 3.5 in relation to alternative questions, the addition of a ULM to a dubitative polar interrogative seems not to add further uncertainty, but to diminish it (i.e. to add *certainty* instead). Like alternative questions, plain polar interrogatives come from the NKW pole where uncertainty is maximal (50% - 50%). We have already explained (section 3.5) that it is impossible to go beyond ‘maximum’, so the addition of *maybe* cannot have that function. Instead – perhaps unexpectedly – it does the opposite, i.e. it reduces maximum uncertainty for the lexicalised alternative, presenting it as somewhat more likely than its implicit counterpart.

When a speaker’s epistemic stance shifts from maximally uncertain between two alternatives towards a slight preference in favour of one of them, it moves towards the B
pole. Thus, it appears to be the case that the presence of a ULM in a polar interrogative (as in dubitative alternative questions) confers upon it some of the features normally associated with tag questions: the implied higher likelihood of the modalised proposition converts the question from a purely information-seeking one into one that is (also) confirmation-seeking. Indeed, the expected response to (3a) and (3b) is more in favour of a yes than of a no. Questioners’ expectations are no longer neutral as they would be in plain polar interrogatives.

3.7 Dubitative tag questions

Tag questions may admit a ULM, but only within the declarative component, i.e. the part of the question where the speaker indicates his/her certainty or uncertainty. Modalising the tag component would invalidate its primary function, which is to elicit confirmation or agreement of the semantic content of the superordinate clause to which it is attached (Biber et al. 1999: 208).

As discussed above (section 2.8), the elements described by Stivers and Enfield (2010) as ‘tag elements’ do not belong to a single grammatical class. Tag questions proper echo the main verb of the clause that they are attached to, e.g., “It is not bad for free, is it?”. Also included amongst Stivers and Enfield’s tag elements is a very different form, in which the tag element features an introductory verb: “don’t you think?”. We will see that these structural differences influence the capacity for tags to be modalised.

If we apply the maybe test to example (4) (section 2.8) *It is not bad for free, is it?* we have for instance:
(4a) *It is maybe not bad for free, is it?*

which is an acceptable dubitative tag question. Since the declarative component is a plain assertion, it can be made dubitative. The same holds true for example (5) (section 2.8), *That is a lot for breakfast, don’t you think?* where we have, for example:

(5a) *Maybe that is a lot for breakfast, don’t you think?*

(5b) *That is maybe a lot for breakfast, don’t you think?*

Both examples (5a) and (5b) admit *maybe*, since such questions come from the uncertain position and their design is already uncertain at the morphosyntactic level.

If we apply the *I wonder if* test to the declarative component of the examples (4) and (5) we have two acceptable sentences:

*I wonder if it is not bad for free*

*I wonder if it is a lot for breakfast*

What remains for us to ascertain is whether *maybe* adds uncertainty to the plain question. In section 2.8, we saw that the design of tag questions conveys that, between the possible alternatives *p* and *non p*, the questioner is inclined to believe that the lexicalised alternative is the more likely of the two. The addition of *maybe* mitigates the supposition, making it somewhat less probable. Whereas the addition of the adverb to polar interrogatives and alternative questions *lowers* the degree of uncertainty (sections
2.5 and 2.6), in tag questions such an addition raises it. From an epistemic perspective, the difference between the plain tag questions (4) and (5) and their corresponding dubitative versions (4a), (5a), (5b) is that the latter, due to the mitigating, hedging function of maybe, are shifted towards the NKW pole, thus becoming less probable than their corresponding plain versions: the questioners’ commitment towards the lexicalised alternative is now more uncertain.

3.8 Dubitative declarative questions

We saw in section 2.9 that a declarative question like example (6) You don’t wanna do that has the morphosyntactic structure of an assertion. Now we want to show why a declarative question, whether seen as an assertion or as a question, admits the presence of a ULM. As an assertion, it comes from the knowing position. Assertions can be made dubitative, so we can also have some dubitative versions of example (6), such as

(6a) Maybe you don’t wanna do that
(6b) You maybe don’t wanna do that
(6c) You don’t wanna do that maybe

In examples (6a) - (6c), we see maybe in clause-initial, -medial and -final positions respectively. As already mentioned, the scope of medial maybe (6b) is restricted to its nearest neighbour (here the verb do), while final maybe (6c) extends back over the entire clause in which it occurs, modalising it retrospectively. Initial position maybe (6a) has a similarly extended scope, but its clause-initial position also adds prominence (as do all
cases of fronting in English), the uncertainty being expressed before – and therefore framing – the proposition.

As a question, we saw that *You don’t wanna do that* comes from the farthest part of the B pole. Also for this reason, it can admit *maybe*.

The *I wonder if* test can also be applied successfully:

\[ I \text{ wonder if you don’t wanna do that} \]

It is interesting to examine, from an epistemic perspective, what difference there is, if any, between the plain declarative question and its dubitative versions, for instance *Maybe you don’t wanna do that*.

As stated in section 2.9, the design of the plain declarative question conveys that Mike is *almost completely* certain that Jess *doesn’t wanna do that*. ‘Almost completely’ means that his degree of uncertainty is minimal. It is precisely this minimal uncertainty that differentiates the question from its corresponding assertion and turns it into a strong assumption, i.e. that Jess *doesn’t wanna do that*.

For these reasons, in our view, adding *maybe* to the plain declarative question lowers its high degree of certainty and, at the same time, raises its minimal level of uncertainty. In other words, *maybe* changes the proportion of certainty and uncertainty, demoting the epistemic rank of the declarative question to that expressed by a tag question. The questioner’s epistemic commitment changes: *maybe* undermines the status of the declarative question and alters its position along the epistemic uncertain continuum (see Figure 4): from the B pole the declarative question moves towards the NKW pole, i.e.
towards the place where tag questions are situated. In comparison with the corresponding plain question, in the dubitative version the questioner’s commitment towards the lexicalised alternative shifts from more probable to less probable.

In the plain forms of declarative and tag questions, the proportion of certainty is almost maximal and that of uncertainty minimal. Adding a stance adverb reduces the certainty and correspondingly increases the uncertainty. In many respects, this is not surprising, since it is widely understood that modalising adverbs have a mitigating, hedging function. What is important to note, however, is that adding *maybe* does not always enhance uncertainty: in some cases, it actually enhances certainty, i.e. the directionality is reversed. We have already seen that this happens when *maybe* is added to alternative questions and polar interrogatives. Here, *maybe* has the unexpected effect of lowering their degree of uncertainty, and correspondingly introducing a minimal degree of certainty, which can be understood as expressing a preference for the modalised alternative.

![Figure 4: Dubitative questions](image-url)
Figure 4 summarises the main points made in Part 2, as a result of the application of Stivers and Enfield's linguistic tests *maybe* and *I wonder if* and of the comparison between plain and corresponding dubitative questions.

### 3.9 Corpus-based evidence

The claim that polar and alternative questions can be dubitative, while wh-questions cannot, finds support in spoken corpus data. To address the particular arguments being advanced, we investigated the use of *I wonder if / I wonder whether* and *maybe* in these question types using the Spoken British National Corpus (BNC) 2014 (Love et al. 2017)\(^{18}\) so that the theoretical points raised could be tested against authentic language data and subjected to quantitative analysis. Since the corpus analysed by Stivers (2010) is not available to other researchers, some alternative data set was by necessity required. The choice to use the Spoken BNC2014 seemed the only sensible one available by virtue of its being (i) the most recently-compiled and (ii) the largest existing corpus of spoken English (of any variety). Both because one of the authors is a native speaker of British English and because no emphasis was made by Stivers as to any peculiarly American features of her data, we cannot consider this difference to be significant. Moreover, our aim was not to compare and contrast British/American forms but rather to test how markers of uncertainty affect the epistemic value of question forms, which were not addressed in Stivers' study.

This subsection presents the findings from this corpus-based study.

---

\(^{18}\) "The 11.5-million-word spoken component of the BNC2014 contains transcripts of recorded conversations, gathered from members of the UK public between 2012 and 2016. The conversations were recorded in informal settings (typically at home) and took place among friends and family members. An innovative aspect of the corpus is that the speakers recorded their conversations using the built-in audio recording device in their smartphones. The corpus comprises 1,251 conversations, featuring a total of 672 speakers" [http://corpora.lancs.ac.uk/bnc2014/](http://corpora.lancs.ac.uk/bnc2014/), last accessed 09 January 2018."
3.9.1 *I wonder if* / *whether*

In order to identify the distribution of *I wonder if* / *I wonder whether* in such question types, we queried the data set with the simple search strings *I wonder if* and *I wonder whether*.

Since *I wonder if* / *whether* are among the most widely-used formulae introducing indirect questions, as Stivers and Enfield (2010) themselves claim in their coding scheme (section 1.3.1), it was expected that a high number of such indirect questions would be found in the corpus. Indeed, the query returned 390 matches in 265 different conversations for *I wonder if* and 24 matches in 22 different conversations for *I wonder whether*. Out of 390 occurrences of *I wonder if*, 18 were found in indirect alternative questions; the remaining occurrences were found in indirect polar interrogatives. It is important to note that the combination of *I wonder if* / *whether* and interrogative pronouns (*why, where, when, who, what, which, how*) was entirely absent in the data. These results confirm the hypothesis underlying research question 3 as regards *I wonder if* / *whether*, the case of *maybe* is more complex and is discussed separately.

3.9.2 *Maybe*

Searching corpora for patterns featuring *maybe* requires some skill, since the word is extremely common and not normally associated with interrogative sentences. To identify the distribution of *maybe* as a dubitative marker in the above mentioned question types, we used regular expressions to formulate the search string. The string *maybe _{$} </u>* allowed us to extract all occurrences of *maybe* to be found within 7 words of a
punctuation boundary and change of speaker turn\textsuperscript{19}. This query returned 376 matches in 287 different conversations. All the occurrences were manually analysed by the authors to (a) remove those occurrences in which \textit{maybe} was not associated with a question and (b) classify the different question types. The interobserver agreement (Cohen’s Kappa coefficient) was 0.82, indicating an almost perfect agreement. Of the initial return of 376 occurrences, the number of examples classified as questions including \textit{maybe} was 192. Frequency data analysis was performed using the SPSS software package.

<table>
<thead>
<tr>
<th>Question types</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative questions</td>
<td>12</td>
<td>6.3</td>
</tr>
<tr>
<td>Polar interrogatives</td>
<td>33</td>
<td>17.2</td>
</tr>
<tr>
<td>Tag questions</td>
<td>11</td>
<td>5.7</td>
</tr>
<tr>
<td>Declarative questions</td>
<td>84</td>
<td>43.8</td>
</tr>
<tr>
<td>Unclassified questions*</td>
<td>52</td>
<td>27.1</td>
</tr>
<tr>
<td>Total</td>
<td>192</td>
<td>100.0</td>
</tr>
</tbody>
</table>

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|}
\hline
Question types & Frequency & \% \\
\hline
Alternative questions & 12 & 6.3 \\
Polar interrogatives & 33 & 17.2 \\
Tag questions & 11 & 5.7 \\
Declarative questions & 84 & 43.8 \\
Unclassified questions* & 52 & 27.1 \\
Total & 192 & 100.0 \\
\hline
\end{tabular}
\caption{Frequency and percentage of question types including \textit{maybe}}
\end{table}

* The label “unclassified questions” refers to questions with an implicit auxiliary or missing main verb: the absence of the verb makes it impossible to reconstruct the syntax, specifically to ascertain whether there is subject-verb inversion. As a result, the question cannot be reliably construed as polar interrogative or declarative.

Specifically, as shown in Figure 5, almost half (43.8\%) of the 192 \textit{maybe} questions are declarative questions; 17.2\% are polar interrogatives, 6.3\% are alternative questions and 5.7\% are tag questions. No wh-questions including \textit{maybe} were identified.

After taking into consideration the unclassified questions (27.1\%), which can be either polar interrogatives or declarative questions (but not tag-questions or alternative

\textsuperscript{19}CQP\textsuperscript{web} regular expression syntax is explained in https://cqpweb.lancs.ac.uk/doc/cqpweb-simple-syntax-help.pdf, last accessed 09 January 2018)
questions, which are easily identified by their syntactic form), we end up with 88.1% of questions including *maybe* being declarative and/or polar interrogatives (43.8% declarative questions + 17.2% polar interrogatives + 27.1% unclassified questions = 88.1%).

![Diagram showing the distribution of question types including *maybe*](image-url)

Figure 5: Distribution of question types including *maybe*

### 3.9.3. Examples from SpokenBNC2014

#### Alternative questions

**S8J6 25**

S0115: so yeah so that (.) so you 're saying a butternut squash does it taste like a pumpkin or a bit sweeter maybe?

S0037: well I tend- like we had some just in the soup last week so I do n't even know if it's like what it's like on its own really (.) I like the shape

#### Polar Interrogatives

**SN22 1165**

S0074: is that something you 're going to do again in the future maybe?

S0018: that's something that I hope I do n't have to do

#### Tag questions

---

20 The ID code for each file is provided for reference.
Declarative questions

SG4J 832
S0024: maybe we can buy some at the shop?
S0144: well if the shop 's open (.)

Unclassified questions

S5PF 643
S0073: >> I 've never eaten pork (.) I do n't think I 've ever eaten pork (.) I 've eaten bacon and I 've eaten pepperoni
S0162: maybe ham?
S0073: ham I 've never eaten

3.9.4. Chi-squared

The non-parametric chi-squared test was applied to verify if the presence of *maybe* in questions is significantly related to specific question types. The test reveals that the difference is statistically significant ($\chi^2 = 97.427$, df = 4, p-value < .000): the use of *maybe* is considerably more frequent in declarative questions and less frequent in alternative and tag questions. The observed and expected frequencies of *maybe* in polar interrogatives are similar.

The results shown in Table 1, Figure 5 and the chi-squared test strongly support the claims that polar interrogatives, alternative, tag and declarative questions may include *maybe*, since they come from the uncertain position; and that wh-questions cannot include *maybe*, since they come from the unknowing position.
3.9.5. Position of maybe in questions

An additional examination of the 192 dubitative questions was carried out to identify the syntactic position of *maybe*: initial, medial, or final (sections 3.5-2.8). The interobserver agreement was 0.89, indicating an almost perfect agreement.

As shown in Table 2, the initial position is used in almost half (49%) of occurrences; final position is used just over a third of the time (35.4%) and medial position is clearly the least favoured.

<table>
<thead>
<tr>
<th>Position of maybe</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>94</td>
<td>49.0</td>
</tr>
<tr>
<td>Medial</td>
<td>30</td>
<td>15.6</td>
</tr>
<tr>
<td>Final</td>
<td>68</td>
<td>35.4</td>
</tr>
<tr>
<td>Total</td>
<td>192</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 2: Frequency and percentage of position of *maybe* in questions

3.9.6. Chi-squared

Independently of the question type, the difference between the three possible positions of *maybe* is statistically significant ($\chi^2 = 32.375$ df = 2, p-value < .000): the initial position is the preferred one, and the medial the least common. The observed/expected frequencies of final position are close.

3.9.7. Question types and position of maybe

Finally, as shown in Table 3, question types and position of *maybe* were compared.

The preferred position of *maybe* changes depending on the question type. In alternative questions, it is mainly medial; polar interrogatives favour final position while tag and
declarative questions find *maybe* in initial position. In the unclassified questions, it is either initial or final, largely in line with such questions being either declarative or polar interrogative.

<table>
<thead>
<tr>
<th>Question types</th>
<th>Position of <em>maybe</em></th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative questions</td>
<td>Initial</td>
<td>3</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Medial</td>
<td>6</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Final</td>
<td>3</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>12</td>
<td>100.0</td>
</tr>
<tr>
<td>Polar interrogatives</td>
<td>Initial</td>
<td>6</td>
<td>18.2</td>
</tr>
<tr>
<td></td>
<td>Medial</td>
<td>7</td>
<td>21.2</td>
</tr>
<tr>
<td></td>
<td>Final</td>
<td>20</td>
<td>60.6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>33</td>
<td>100.0</td>
</tr>
<tr>
<td>Tag questions</td>
<td>Initial</td>
<td>6</td>
<td>54.5</td>
</tr>
<tr>
<td></td>
<td>Medial</td>
<td>3</td>
<td>27.3</td>
</tr>
<tr>
<td></td>
<td>Final</td>
<td>2</td>
<td>18.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>11</td>
<td>100.0</td>
</tr>
<tr>
<td>Declarative questions</td>
<td>Initial</td>
<td>53</td>
<td>63.1</td>
</tr>
<tr>
<td></td>
<td>Medial</td>
<td>13</td>
<td>15.5</td>
</tr>
<tr>
<td></td>
<td>Final</td>
<td>18</td>
<td>21.4</td>
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<tr>
<td></td>
<td>Total</td>
<td>84</td>
<td>100.0</td>
</tr>
<tr>
<td>Unclassified questions</td>
<td>Initial</td>
<td>26</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Medial</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>Final</td>
<td>25</td>
<td>48.1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>52</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Table 3: Frequency and percentage of question types in relation to the position of *maybe*.*

### 3.9.8. Chi-squared

The non-parametric chi-squared test was applied to ascertain if there are significant differences in the position of *maybe* in each question type. In alternative and tag questions there are no significant differences (respectively, $\chi^2 = 1.500$, df = 2, p-value < .472 and $\chi^2$
= 2.364, df = 2, p-value < .307), i.e. maybe is found in nearly equal proportions in the three different positions. However, in polar interrogatives and declarative questions the differences are statistically significant. Specifically, in polar interrogatives maybe is more frequent in final position ($\chi^2 = 11.091$, df = 2, p-value < .004), in declarative questions it is more frequent in initial one ($\chi^2 = 33.929$, df = 2, p-value < .000).

4. Discussion and Conclusions

There were four main aspects to the present study: to find out, from an epistemic stance perspective, (1) why polar and alternative questions can be made dubitative, i.e. can include a ULM, (2) why it is that wh-questions cannot, (3) what empirical evidence can support the claim that polar and alternative questions can be dubitative while wh-questions cannot, (4) whether the presence of a ULM in polar and alternative questions changes anything in the questioners’ epistemic commitment in comparison with the corresponding plain questions (and, if so, what changes can be identified).

The answer to questions 1 and 2 was given in Part 1 by showing that polar and alternative questions can be made dubitative since they come from what we call the questioner’s uncertain position: for this reason, their epistemic design is already uncertain at the morphosyntactic, i.e. grammatical, level (the plain question forms), with no need for a ULM. In brief, they do not require a ULM to be uncertain, since they are already uncertain ‘by their very nature’. For the same reason, i.e. for their coming from the uncertain position, they can, in principle, include a ULM. Wh-questions, on the contrary,
cannot be dubitative, since they come from the *unknowing*, not the *uncertain*, position: in their epistemic design there is no room for un-certainty, only for un-knowledge.

Specifically, starting from John Heritage’s epistemic gradient and sharing his distinction between a *less knowledgeable* questioner (K-) and a *more knowledgeable* respondent (K+), research questions 1 and 2 were answered by making a further distinction, within the K- position, between a less knowledgeable questioner who asks a question because s/he *does not know*, i.e. s/he ignores, and a less knowledgeable questioner who asks a question because s/he *does not know whether*, i.e. is uncertain.

As a matter of fact, when transformed from direct to indirect questions, wh-questions require *I do not know* as an introducing epistemic verbal expression to form a grammatically acceptable sentence (section 2.5), while alternative and polar questions require *I do not know whether… or…* (sections 2.6-2.9). Uncertainty, by definition, implies *alternatives*: the questioner is faced with at least two different *possibilities*, and the verbal expression *I do not know whether…or…* well conveys this sense of epistemic uncertainty.

Our model, differently from Heritage’s, explicitly distinguishes between questioner’s un-knowledge and questioner’s un-certainty: while wh-questions express a lack of knowledge (=un-knowledge) concerning the *identity* of a particular *piece* of information *within* a proposition, a specific *element*, i.e. a wh-word (*How much* does it cost to train?), polar questions (interrogatives, tag and declarative questions) express a lack of certainty (=uncertainty) concerning the *truth* of a *complete* proposition or, as in alternative questions, of two propositions. In this sense, wh-questions are unknowing questions, while polar and alternative questions are uncertain questions.
Epistemic stance is not only a matter of knowing more or less (K+ or K-) than the interlocutor, i.e. of knowing and not knowing, as Heritage claims, but also of not knowing whether and believing (Zuczkowski et al. 2017; Bongelli et al. forth.). In our view, the epistemic expressions I do not know whether p and I believe that p refer to cognitive processes that are different from those referred to by I know p and I do not know p and at the linguistic level both correspond to a third epistemic position, the uncertain one, which has an epistemic status of its own. Not knowing whether (NKW) and believing (B) are the two poles between which the epistemic continuum of uncertainty ranges and constitute a third epistemic stance, the uncertain, to be added to the previous two (knowing and unknowing) (Figure 2).

In the NKW pole, the degree of uncertainty is maximum: each alternative has a 50% probability of being true. In the B pole, the percentage of uncertainty is minimal and that of certainty is almost maximal. The four types of uncertain questions (alternative, polar interrogatives, tag and declarative questions) place themselves in different points along the epistemic continuum since they express different degrees of uncertainty.

Alternative questions (Were you drunk or were you sober?) and polar interrogatives (Did anybody say anything about the bar today?) are closer to the NKW pole, since for the questioner both alternatives (respectively, p₁ or p₂ and p or non p) are possibly true to the same degree (50%-50% probability).

In both types of question the questioner’s expectations concerning the interlocutor’s response are neutral, not oriented in favour of one alternative, both are expected to the same degree. For this reason, such questions are information-seeking rather than confirmation-seeking.
When using tag and declarative questions, questioners move gradually from the NKW to the B pole, i.e. from maximum to minimum uncertainty, from equal probability to unequal probability in favour of the lexicalised alternative, from information (neutral expectations) to confirmation (non-neutral expectations) seeking.

In tag questions (*It is not bad for free, is it? – That’s a lot for breakfast, don’t you think*?), the tag element gives the declarative component of the question the function of a supposition: questioners are more inclined to think that the lexicalised, explicit alternative is more likely to be true than the implicit one.

Declarative questions (*You don’t wanna do that*) come from the farthest extremity of the B pole: questioners’ epistemic commitment towards the truth of p is very high, virtually certain that p is true; they therefore ask for confirmation.

In all four types of uncertain questions, the questioner wants to move from uncertain, i.e. possible, states of affairs (for instance, *Were you drunk or sober?*) to a certain one, i.e. true, known, thanks to the recipient’s response (for instance, *Yes, I was drunk*). These uncertain states of affairs are thought of by the questioner as being equally probable in alternative questions and polar interrogatives\(^\text{21}\) and as being unequally probable to different degrees in tag and declarative questions. The expression unequally probable means that the lexicalised alternative is supposed to be more likely of being true than the non-lexicalised one. In all four types of uncertain questions, the recipient’s response is expected to dissolve the questioner’s uncertainty, letting the questioner know which possibility is true.

\(^{21}\) As said in footnote 11, some polar interrogatives fit better in Coleman’s reading and thus are neutral, while others fit better in Bolinger’s reading, thus being non-neutral.
In wh-questions, on the contrary, questioners want to move from an *unknown* state of affairs to a known one, i.e. certain, true.

In Figure 3 the epistemic continuum going from the unknowing position to the believing pole of the uncertain position corresponds to Heritage’s epistemic gradient in Figure 1. The only difference between the two epistemic continua is that, in our model, Heritage’s K- is further divided into two distinct epistemic positions, the unknowing and the uncertain, while Heritage’s K- seems to enclose the two in one unique position. In Figure 6 we present a superposition of the two models (alternative questions are added to Heritage’s Q1-Q4 question types).

![Diagram](image)

*Figure 6*: Our unknowing (U) position and NKW/B poles of the uncertain position superposed to Heritage’s K- position

Part 2 endeavoured to provide empirical support to the claim that polar and alternative questions can be dubitative, while wh-questions cannot. Firstly, Stivers and Enfield’s linguistic tests *maybe* and *I wonder if*/*whether* were systematically applied to examples 1-6 analysed in Part 1; secondly, a corpus-based study of the use of *maybe* and *I wonder if*/*whether*
whether in questions was undertaken, to enrich the findings and make a quantitative analysis possible.

The application of both linguistic tests to polar and alternative questions resulted in grammatically acceptable sentences, while to wh-questions it resulted in grammatically unacceptable sentences, as corroborated by the absence of such forms in the corpus data. Both results strongly support our claims that polar and alternative questions can include a ULM since they come from the uncertain position, while wh-questions cannot since they come from the unknowing position.

As far as the corpus-based study is concerned, the Spoken BNC2014 data confirmed that (1) polar and alternative questions can be introduced by I wonder if / I wonder whether, while wh-questions cannot; (2) polar and alternative questions can include maybe (although the percentage is not high: speakers use maybe in 6.3% of alternative questions), but wh-questions cannot include maybe (no occurrences are present in the data); (3) declarative questions are the most frequently-used of the dubitative questions involving maybe.

This third finding is consistent with that of Stivers (2010: 2773), according to whom “declarative utterances were the dominant polar question type” in spontaneous American English conversations. Therefore, not only are declarative questions the most widely-used polar questions, but they are also the most numerous of the dubitative questions including maybe. Although all dubitative questions can include maybe in any of the three syntactic positions (initial, medial and final), the statistical analysis revealed that in polar interrogatives maybe is more often placed in final position while in declarative questions it is more often found in initial position.
Finally, to answer the fourth research question (whether the presence of a ULM like *maybe* in polar and alternative questions changes anything in the questioner’s epistemic commitment in comparison with the corresponding plain questions), the *maybe* test was applied to alternative and polar questions in order to ascertain whether the presence of this stance adverb adds more uncertainty to such questions, which are already uncertain at their grammatical design: does one grammatical marker of uncertainty (the plain question design) plus one lexical marker of uncertainty (the adverb *maybe*) double the degree of uncertainty in dubitative questions?

*Maybe* is a stance adverb that signals the speaker’s uncertainty in the here-and-now of communication. In particular, in our view, it signals a *supposition* (or something similar: assumption, hunch, guess...). In saying *Maybe Alex is on the beach*, the speaker communicates that, even though s/he does not know whether Alex is on the beach or not, s/he nonetheless is more committed to suppose (to believe, to think) that p (Alex is on the beach) is more likely to be true than non p (Alex is not on the beach). In this sense, *maybe* is closer to the B than to the NKW pole: in saying *Maybe Alex is on the beach*, the speaker mitigates the corresponding assertion *Alex is on the beach* making it a supposition.

Since *maybe* mitigates certainty, when added to questions coming from the B pole (like tag and declarative questions) where the degree of certainty is higher than that of uncertainty, the adverb mitigates the degree of certainty, i.e. reduces the higher probability assigned to the lexicalised alternative and correspondingly increases the lower probability assigned to the non-lexicalised alternative (the proportion of certainty and uncertainty still remaining in favour of the former). This is in accordance with the hypothesis that the
presence of *maybe* raises the degree of uncertainty (and correspondingly lowers the degree of certainty).

But, when added to questions coming from the NKW pole (like alternative questions and polar interrogatives) where the uncertainty is maximal (50% probability to each alternative), the adverb mitigates what it finds there: it finds no certainty, it only finds uncertainty, then it mitigates uncertainty. This means that the modalised alternative *is supposed* to be *less uncertain*, i.e. more certain, than the plain one: the former is supposed to be more likely to be true than the latter (Figure 4).

Contrary to the above-mentioned expectation and to what Stivers and Enfield (2010) claim, the addition of *maybe* makes alternative questions and polar interrogatives neither *uncertain* (since they are already so at their grammatical, plain level) nor *more uncertain* (since they already represent the maximum uncertainty). Rather, the addition of *maybe* makes them, paradoxically, *less uncertain*, i.e. more probable of being true. In other words, *maybe* seems to *modulate* (Halliday 1976, Lakoff 1972, Caffi 1999) the epistemic force of the uncertain questions, functioning as a *hedge* when added to tag and declarative questions, since it increases their uncertainty, and as a *booster* when added to alternative questions and polar interrogatives, since it lowers their uncertainty.

The evidence to support these last two claims cannot be obtained through corpus analysis, but through psycholinguistic and cognitively-oriented investigations, which will be carried out in future work.

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