認識のモダリティとその周辺
－ 日本語・英語・中国語の場合 －

Epistemic Modality and Related Phenomena:
The Cases of Japanese, English and Chinese
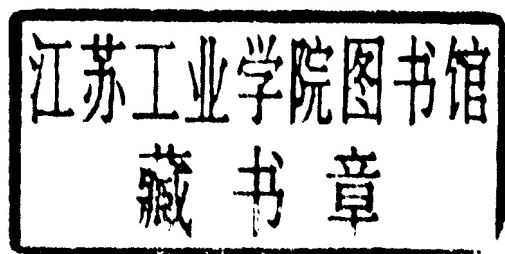
国立国語研究所

The National Language Research Institute

(Tokyo, Japan)

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はじめに

　本書は、第7回国立国語研究所国際シンポジウムの第6専門部会「認識のモダリティとその周辺」をまとめたものです。国立国語研究所は、1993年から、「国際シンポジウム」を毎年開催しています。これは、全世界の日本語関係者に交流の場を提供し、広い視野に立って日本語研究・日本語教育研究の発展に寄与することを目的とするものです。

　平成11年度の国際シンポジウム第6専門部会は、年度の最後を飾る形で平成12（2000）年3月4日に国立国語研究所講堂で行われました。開催には、当研究所の対照研究の部門がかかわりました。ひとつは、外国人研究員を招聘して共同研究をしている「日本語コミュニケーション能力に関する国際共同研究」であり、もうひとつは日本語教育センター第2研究室「日本語と欧米諸言語との対照研究」です。前者の佐々木倫子（国立国語研究所日本語教育センター日本語教育指導普及部長）、曹大峰（国立国語研究所招聘外国人研究員—当時、現・山東大学教授）で日本語、英語、中国語におけるモダリティ研究を取りあげることを決め、後者の藤井聖子（前・国立国語研究所日本語教育センター第2研究室長）が加わりました。

　所外からは、英語のモダリティ研究の第一人者であるウォーレス・チェイフ博士と、日本語のモダリティ研究の第一人者である仁田義雄、森山卓郎両氏にお集まりいただきました。

　チェイフ博士の英語による講演には抄訳のみを付けましたが、本書にはより詳しい講演内容の訳を添えました。

　本書が、今後のモダリティ研究に寄与し、また、言語教育に貢献することを念願しております。

2000年11月

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国立国語研究所長

甲斐　睦朗

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Epistemic modality in English

CHAFE, Wallace

University of California at Santa Barbara

I apologize for speaking in English, but I will be speaking about English also. I think you will hear me using a great deal of epistemic modality as I talk. In fact I just said "I think". You will find examples throughout what I say.

I was asked to speak about epistemic modality in English. There are several reasons why that is not an entirely easy thing to do, and why I feel somewhat inadequate for this assignment. To begin with, there is a great deal that has been written on this subject, and in recent years that amount has increased considerably. I have listed some references at the end, but they are only a few selections from a large number of works that would have to be included in an adequate bibliography. The book by Frank Palmer (1986) is the most comprehensive modern survey, but a new edition will be published soon and is worth waiting for.

If you read these works, you find very quickly that the subject has been approached by different people in different ways. Epistemology is of course a topic that has always concerned philosophers, who have their own approaches to it, but within linguistics alone there are many points of view. How this topic has been treated has depended on one's general view of language, and of course there are many different ideas about how language is organized, and even what language is. Furthermore, the data on which various studies have relied have differed in several ways. For example, some studies have used only examples that were constructed by the investigator, while others have examined what people actually say, as is true, for example, of the book by Jennifer Coates (1983). And some studies have focused on written language, or language that is written-like, while others have examined spoken language, as Coates again did. Still another kind of difference has arisen from the fact that a full understanding of this topic needs to examine, not only the present, synchronic state of the English language (not to mention variation within that language), but also the

diachronic, historical events that led to that present state. Like everything else in a language, expressions of epistemic modality cannot be fully understood without understanding the historical forces that shaped them. Finally, it is important and necessary to distinguish the *semantics* of epistemic modality from the grammatical devices that are used to express modal meanings.

This last distinction—between semantics and grammar—has presented me with a problem in knowing how to organize what follows. It would be possible to organize this presentation on the basis of grammatical devices, perhaps discussing first modal auxiliaries, then perhaps epistemic adverbs, and then main verbs and their complements. If I organized my presentation in that way, the meanings underlying those various forms would appear to be rather incoherent and disorganized. The alternative is to organize what I say on the basis of the semantics of epistemic modality, in which case the grammatical representations may appear to be incoherent. The problem, of course, is that semantics and grammar do not always match.

Confronted with these two alternatives, I chose the second—organizing my talk on the basis of meanings—in part because I think meanings are more fundamental than the ways they are expressed. It is what people mean that they are conscious of as they speak, and I believe that it is semantics that drives grammar, not the other way around. It is my feeling that a semantically-based approach brings more coherence to the topic as a whole. But in addition to that, it is important at this meeting to point out that a semantically-based approach can be more useful when we are comparing different languages. If we are interested in comparing epistemic modality in English, Japanese, and Chinese— or in fact in any set of languages—it is the meanings that are the most natural phenomena to compare, whether they are the same or different meanings across the languages. In a sense the grammar of epistemic modality, which of course will be different in each language, is useful above all to the extent that it enables us to get at the meanings the different grammars express.

The basic function of language is to associate thoughts with sounds. We experience thoughts, and we make sounds in order to communicate our thoughts to others. Because languages change—and because they change independently

in sounds and meanings, the association of thoughts with sounds is often indirect, and that is why semantics and grammar do not always match. Language not only associates thoughts with sounds, but also provides ways of organizing both the thoughts and the sounds, since obviously it would be impossible to make the associations if the thoughts and sounds were not organized in some way. Different languages organize both thoughts and sounds differently, as this meeting will demonstrate. I will talk about a few of the ways English organizes thoughts, and in particular those aspects of thought that involve the acquisition and evaluation of the knowledge that constitutes the thoughts, the area of epistemology.

I would like to make a distinction between what I will call *ideas* and what I will call the *orientations* of ideas. Ideas are mental representations of events and states—of things that happen and the way things are, along with the participants in those events and states. Thus, if I happened to say, for example, *I bought an umbrella,* there is the idea of the buying event, and there are also the ideas of the participants in that event: the idea of me, as the buyer, and the idea of the umbrella, or what was bought. In general, ideas can be translated in a somewhat satisfactory way from one language to another, although not perfectly by any means.

Every language also orients ideas in various ways. The orientation may be in terms of time, or of space, or of the interaction between the people who are talking, or with relation to other ideas in the flow of discourse, or with relation to epistemology, which is our concern here. Whereas *ideas* of events and states and their participants are expressed in what have sometimes been called content words, *orientations* may be expressed in function words, but also in inflections, and in prosody as well. When I said *I bought an umbrella,* the idea of the buying event was oriented in time with the past tense of the verb; the idea of me, as the buyer, was oriented in the flow of discourse with the form *I* rather than *me* expressing the starting point of the statement; and the idea of the umbrella was oriented in the interaction, with the indefinite article *an,* as not identifiable to the listener.

As compared with the ideas of events and states and their participants, orientations are more likely to differ significantly across languages. In this case *kasa o katta,* which I take to be a reasonable translation of *I bought an umbrella,* does orient the idea of the event as past, although the function of past tense in Japanese may be somewhat different from its function in English. But the idea of the speaker, who is treated in English discourse as the starting point of the event, is not overtly expressed at all, as of course is typical in both Japanese and Chinese. *Kasa o katta* has no overt reference to the buyer. And the idea of the umbrella does not have the orientation as nonidentifiable that English gives it with the indefinite article. On the other hand Japanese orients the umbrella as the object of the buying with the particle *o,* a function that English marks only with word order, if at all.

The ways in which events and states are oriented are often assigned to three basic types, which are labeled *tense, aspect,* and *mode.* So far as tense is concerned, its function may seem clear enough. According to Comrie (1985), for example, tense "relates the time of the situation referred to to some other time, usually to the moment of speaking." I suspect, however, that Comrie's description does not fully capture the human experience of time, which distinguishes the quality of immediate experience from the qualities of remembered experience (expressed by past tense) and of imagined experience (expressed by future tense). I believe that linguistics, with its bias toward form rather than meaning, continues to suffer from a reluctance to recognize the qualities of human experience (Chafe 1994).

When it comes to aspect, it is a kind of orientation that might seem to be based on time also. With aspect, however, it is not time with relation to "the moment of speaking." Comrie (1976) wrote that "aspects are different ways of viewing the internal temporal constituency of a situation." That may be a good way of describing the function, say, of the so-called progressive aspect in English, as in *I'm eating,* where the orientation in the middle of an ongoing event might well be described as "internal temporal constituency." But it does not seem so obviously the best way to describe the perfect aspect, as in *I've eaten,* where a past event is interpreted as having present relevance. In other words, aspect is

not entirely easy to define as a coherent semantic category, although we may think we recognize it when we see it.

But if there are certain problems in defining tense and aspect, what can we say about modality? Modality has been described as an orientation that involves the "opinion or attitude" of the speaker (Lyons 1977: 452; cf. Palmer 1986: 2). Again, that definition seems to be approximately correct, but it may not cover all the cases we would like to assign to modality. Perhaps we can say in the most general terms that a modal orientation of the idea of an event or state involves the speaker's evaluation of that idea, but of course that depends on what we understand by the word *evaluation.* That is what I will discuss for the rest of my talk, with reference, of course, to epistemic modality in English.

As soon as we begin to examine modality in general, we recognize immediately that a basic distinction needs to be made between so-called *deontic* modality and *epistemic* modality. Deontic modality can be roughly characterized as involving obligation or permission, or, perhaps better, the sociophysical forces that are involved in the evaluation of ideas (Sweetser 1990). Thus, if I say *I have to buy an umbrella,* the modal phrase *have to* orients the idea of the buying as an obligation that has somehow been imposed on me, perhaps in this case by anticipated physical conditions (the anticipation of rain).
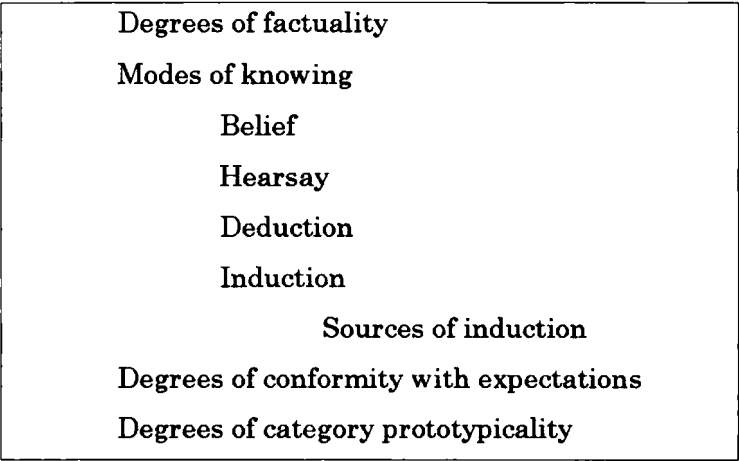
I do not need to say more about deontic modality here, except to mention the well known fact that expressions which originated in a language as deontic often come to be used metaphorically for epistemic orientations. Thus, if I were to say *she has to be at work,* I might be conveying a socially imposed obligation on her, but I might also be conveying my inference, derived from some kind of evidence, that that is where she is. This latter meaning, of course, is an epistemic one. Deontic modality, then, often provides a metaphorical way of expressing epistemic modality, apparently because sociophysical obligations can easily be transferred metaphorically to cognitive obligations (cf. Sweetser 1990).

Epistemic modality involves the status of knowledge. It specifies cognitive forces that shape our evaluations of events and states. The human mind enables us to understand the physical and social worlds in which we live, and to decide on appropriate ways of interacting with those worlds. The specific

ways we understand our surroundings have in part been wired into our minds by human evolution, but they are also in part the result of cultural forces that shape our experiences. Epistemic modality shows that these understandings are not restricted to what our minds have led us to perceive as the real or factual state of the world around us, but are easily extended to worlds that we imagine: worlds that are in some cases desired and to be worked toward, but that are in other cases feared and to be avoided. Epistemic modality is important because it gives us insights into a human awareness that our thoughts may fit to varying degrees and in varying ways with what we regard as the reality outside ourselves.

I have summarized in (1) the ways in which languages may organize this domain of epistemic modality.

(1) Ways of organizing the epistemic domain

Degrees of factuality
Modes of knowing
Belief
Hearsay
Deduction
Induction
Sources of induction
Degrees of conformity with expectations
Degrees of category prototypicality

First of all, probably all languages provide several ways of expressing a speaker's evaluation of the degree of factuality of an idea, ranging from a judgment of unqualified factuality at one extreme to a judgment of nonfactuality at the other extreme, with various intermediate possibilities. This scale of factuality can perhaps be regarded as the simplest and most basic way of evaluating knowledge.

In addition to providing ways of expressing degrees of factuality, languages may recognize several ways in which understandings of the world have been acquired, so-called modes of knowing. Different modes of knowing may belong at different points on the scale of factuality, and where they are placed on that scale may vary from one language to another.

One mode of knowing can be termed *belief:* knowledge that may or may not have been derived from observations of one's surroundings, and that has often been acquired from others whose authority is respected. It may simply be knowledge that a person wants to hold, for whatever reason. However it may be acquired, belief can be the most strongly held kind of knowledge there is, and a kind that is not easily given up. Because the world is so complex, humans could probably not function without having beliefs—without possessing knowledge that goes beyond observations. Nevertheless, even a cursory glance at human history is enough to show that beliefs devoid of substantial evidence have caused and still are causing endless suffering.

Another avenue to knowledge is the language of others. Obviously much of what we know is acquired from other minds, and it is language above all that allows transfers of knowledge from one mind to another to take place. It is what is happening as I speak. To the extent that my audience and I share a common language, I can hope that something in my mind is being assimilated by minds in the audience. The term *hearsay* has been used for this mode of knowing. It is not an ideal term, because in English the word *hearsay* implies a relatively low position on the scale of factuality, and that need not be the case with this mode of knowing. Nevertheless, it has become something of a technical term in this usage, and I will use it here.

Another mode of knowing can be called *deduction.* It involves understandings that are arrived at through prior knowledge of patterns, which are then applied to the imagining of new events and states. We can imagine things that will happen or have happened because they fit patterns with which we are already familiar, and we deduce new knowledge from those patterns.

A mode of knowing that seems to be widely recognized across languages, and that is often qualified in interesting ways, is *induction* or *inference:*

knowledge that starts with an observation of the world and moves from that observation to an understanding of something that is *not* observed. Languages sometimes go beyond marking induction alone to marking the kind of observation that has led to a particular induction. These are the markings that are called *evidentials* in the narrow sense of that term, since they specify explicitly the kind of evidence that led to the inference.

The human mind is full of *expectations* about how the world is and how the world will be. The degree to which some item of knowledge conforms to expectations (or fails to conform) is still another way it may be evaluated.

Finally, language relies fundamentally on *categories,* which provide words that enable us to verbalize our ideas. It is well known that particular experiences may conform to available categories to a greater or lesser degree—that they may be more or less prototypical, and the degree of prototypicality of a piece of knowledge is the last of the ways listed in (1) in which it may be evaluated.

We can turn now specifically to what English does with the epistemic functions outlined in (1). As I discuss the resources English makes available, I will use some examples I have constructed, all of them based on the idea that *it's raining* (cf. Chafe and Nichols 1986: vii). In general, I would prefer to use examples taken from things people have been recorded as actually saying, but for my purposes here I can present and compare the epistemic resources of English more clearly if we can look at modifications of this one simple idea. For the most part these constructed example are, I think, quite natural things to say, although some of them may be more natural than others.

If it is uttered in this simple way, *it's raining* conveys an idea the speaker has evaluated as factual. No question is expressed about whether it might or might not be raining. At the opposite extreme one can of course say *it's not raining* to convey the extreme of nonfactuality. In that case there must have been an expectation that rain was a possibility. In other words, the extreme of nonfactuality is utilized in a context where at least some degree of factuality could be entertained. These two extremes are shown at the top and bottom of (2):

(2) Degrees of factuality

Factual	It's raining.	
	(Adverbs)	(Modals)
	Probably it's raining.	—
	Maybe it's raining.	It *may* be raining.
	Possibly it's raining.	It *might* be raining.
Nonfactual	It's *not* raining.	

But of special interest here is the fact that these two extremes are by no means the only epistemic orientations this idea can have. Some other possibilities are listed in the middle portion of (2). In English these intermediate degrees may be expressed in either of two ways: by epistemic adverbs or by modal auxiliaries, or simply *modals*. The adverbs shown here range from *probably*, showing a relatively high degree of judged factuality, to *possibly*, showing a relatively low degree, with *maybe* somewhere in the middle.

The illustrations in (2) do not capture subtle aspects of word order or frequency of use of these adverbs. Reliable conclusions regarding such matters will depend on carefully conducted studies based on significant corpora of real spoken language. My preliminary impressions are as follows. With regard to *probably*, it is commoner to say *it's probably raining*, instead of beginning the sentence with *probably*. Unlike *probably*, *maybe* is more common at the beginning of a sentence, as in (2)—*maybe it's raining*. Essentially equivalent to *maybe* is *perhaps*, which is more common in written language. *Possibly* may not be as common as *probably* or *maybe*, and the corresponding modal may be preferred, at least in speaking.

If we turn now to those modals, *may* expresses something quite similar to *maybe*, which of course was derived from it historically. While the same etymological connection is missing, *might* has a force similar to that of *possibly*.

In this case, as just mentioned, *it might be raining* may be a commoner usage than *possibly it's raining*. It is interesting that there seems to be no modal that corresponds to *probably*. One might think at first that *it must be raining* would perform this function, but we will see in a moment that *must* carries additional information concerning the mode of knowing.

The devices illustrated in (2) are not the whole story as far as degrees of factuality are concerned. English also provides several adverbs that modify the intensity of these evaluations. For example, for both the factual and the nonfactual extremes the word *definitely* expresses a commitment to that extreme in a context where there may otherwise have been room for some doubt, as illustrated in (3):

(3) Reinforcing an extreme of factuality with *definitely*

It's <u>*definitely*</u> raining.
It's <u>*definitely not*</u> raining.

It is interesting that while *it's definitely raining* intensifies a commitment to the factual extreme, another alternative, *it's really raining*, which might at first be thought to have a similar function, in fact intensifies the strength or volume of the rain. *It's really raining* is more or less equivalent to *it's raining hard*.

Leaving aside the extremes of factuality and nonfactuality, the adverb *quite* can be added at both the top and bottom of the probability scale. In either case, unlike *definitely*, which intensifies either the positive or negative extreme, *quite* always pushes the evaluation upward in the direction of greater factuality, as illustrated in (4):

(4) Reinforcing in the direction of factuality with *quite*

<u>*Quite probably*</u> it's raining.
<u>*Quite possibly*</u> it's raining.

At the low end of the probability scale, the adverb *just* pushes the judgment downwards, toward greater nonfactuality. And unlike *quite, just* can apply to either an adverb or a modal, as shown in (5):

(5) Reinforcing in the direction of nonfactuality with *just*

     Just possibly it's raining.
     It just might be raining.

All of these options involving the scale of factuality say nothing about the manner in which the speaker obtained the knowledge being expressed; they do not specify the mode of knowing. We can now turn to resources English provides for that purpose.

As mentioned earlier, in one sense the simplest mode of knowing is *belief.* Reasons for believing something can be quite diverse, but at the heart of belief is a lack of concern for evidence. People believe things because they want to, or because other people believe them, or perhaps for other, idiosyncratic reasons. The word *opinion* is used for a kind of belief that is explicitly more tentative, personal, and less likely to be shared.

Belief is usually expressed in English, neither with an adverb nor a modal, but with what is syntactically a main verb with a first person subject followed by the object of belief as a complement clause. The favorite way of expressing belief is with the extremely common phrase *I think,* although sometimes people say *I guess* or even *I believe,* as with the illustrations in (6). All of these examples share a lack of concern for evidence, although in some cases it is quite possible that the speaker has observed something that led to the belief. I have added the phrase *in my opinion* at the end to illustrate a way of expressing a more personal belief:

(6) Modes of knowing 1: Belief

I think it's raining.
I guess it's raining.
I believe it's raining.
In my opinion it's raining.

The second mode of knowing listed in (1) is hearsay. Many languages have one or more strongly grammaticized devices for indicating that a particular understanding was acquired from another mind through language. In English, however, this hearsay mode of knowing does not have any single, well integrated grammatical expression. In (7) I have listed some of the ways it may be expressed. It is easy to see that these ways are quite diverse, ranging from active and passive forms of the verb *say—they say it's raining* or *it's said to be raining;* through the main verb *hear* with a complement clause—*I hear it's raining;* and several adverbs like *supposedly* and *apparently—supposedly it's raining* or *apparently it's raining;* and finally the phrase *it seems.* Except for the first two examples in (7) with the verb *say,* all of these devices were borrowed for the hearsay usage from other usages I will mention shortly.

(7) Modes of knowing 2: Hearsay

They say it's raining.
It's said to be raining.
I hear it's raining.
Supposedly/apparently it's raining.
It's raining, it seems.

The next mode of knowing listed in (1), deduction, is based on some already known pattern that has led to the knowledge in question. It may be expressed in English with the very similar modals *should* or *ought to,* which

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