

MARTHA SHIRO
Central University of Venezuela, Caracas

EXPRESSIONS OF EPISTEMIC MODALITY
AND THE CONSTRUCTION OF NARRATIVE STANCE
IN VENEZUELAN CHILDREN'S STORIES*

The focus of this study is the development of epistemic modality (a linguistic phenomenon whereby the speaker's attitude towards the information in the utterance is expressed) in narrative production. The use of linguistic resources used by Spanish-speaking school-age children to express epistemic meaning is described together with the variation of these uses with age, SES and narrative type. The sample consists of 419 personal and fictional narratives produced by 68 Venezuelan first and fourth graders. Results suggest that children use a wide range of both lexical and grammatical constructions to express modality (modal verbs, subjunctives and conditionals, forms typically associated with this phenomenon, are not frequent in Spanish-speaking children's language). Older children, particularly high SES, increase the use of epistemic expressions. Similarly, use of epistemic modality facilitates the construction of narrative stance.

Introduction

In each utterance, speakers express their commitment to the information contained in their statements. They achieve this by selecting options from the modal system in their language (Stubbs, 1986). How do children learn to use the subtleties of this system?

My purpose in this study is to describe the linguistic resources children use when they express certainty or uncertainty. In addition, I intend to focus, from a developmental perspective, on the role these expressions play in the construction of narrative stance. Following Palmer (1986), Halliday (1994), Stubbs (1986), Thompson (1996), Chafe (1986), and Mushin (2001), epistemic modality is under-

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stood, for the purposes of this study, as a system integrating choices for speakers to express degrees of certainty regarding the contents of their utterances. When using expressions of epistemic modality (Palmer, 1986), users of language convey a set of beliefs together with the degree of commitment projected in each utterance. This use enables the participants in an interaction to retrieve speakers' communicative purpose. Therefore, the uses of epistemic modal expressions are closely related to speakers' intentionality as well as to other evaluative uses of language.

Research in child language suggests that modal expressions, particularly epistemic modals, do not develop at an early age (Day, 2001). In narrative discourse, the sequence of events is built around a high point, thus combining referential and expressive functions in story-telling (Labov, 1972). As modality has an evaluative function, the analysis of how these expressions are used in narrative production can help us explain certain features of discourse organization. Children (and story-tellers in general) make use of linguistic resources to signal their position regarding the narrated events, building a narrative perspective without which the story cannot be understood.

In this study I intend, on the one hand, to analyze the linguistic resources Spanish-speaking children use to express degrees of certainty, and, on the other, to determine how these epistemic modal expressions contribute to the construction of narrative perspective.

However, I shall first present how epistemic modality is understood for the purpose of this research. Scholars in different fields (philosophy, psychology, language, law) have always shown interest in understanding how certainty is expressed in language. In recent years, there has been a renewed interest in this area of study. As a great number of papers are being published on the topic, the theoretical and methodological approaches have become more diversified (Berman & Nir-Sagiv, 2004; Grande Alija, 2002; López Rivera, 2002). In what follows, I offer a brief summary of the theoretical framework that has guided this research.

The research questions

The use of modal expressions reflects the interpersonal function of language (Halliday, 1994). The participants in an interaction adopt different roles when they express how committed they are to the truth of the exchanged information. Lyons (1977, p. 795) explains that, in example 1, the speaker is evidently responsible for the truthfulness of the proposition *They survived*.

Example 1. *It is amazing that they survived.*

Example 2. *If he had been to Paris, he would have visited Montmartre.*

In example 2, however, the speaker is indicating that the proposition *He has been in Paris* is not true.

Palmer (1986, p. 53) suggests that there are three types of statements:

- a) DECLARATIVES in which the speaker projects absolute certainty and, thus, cannot be questioned by the addressee:

Example 3. *Corro en las mañanas*. (“I run in the mornings”).

- b) EVIDENTIALS in which relative confidence is expressed and which are frequently accompanied by some kind of justification or evidence:

Example 4. *Te vi correr*. (“I saw you running”).

- c) JUDGMENTS in which a hypothesis or a high degree of uncertainty is conveyed. As a result, there is no need to question these utterances because the speaker is already projecting a great deal of uncertainty:

Example 5. *Yo creo que no paré de correr*. (“I think I didn’t stop running”)¹

The study of epistemic modality examines the construction of utterances type *b* (*evidentials*) and type *c* (*judgments*). Viewed in this way, the linguistic study of modality embraces several levels of analysis (see Bermúdez, 2004, for a discussion of grammatical and lexical modal choices in Spanish). On the syntactic level, the clause structure and the structure of clause complexes, which constitute the building blocks of utterances, can be examined for markers of modality; on the pragmatic level, the role of context in the disambiguation of the usually polysemic modal expressions should be accounted for; on the discourse level, the analysis can focus on the function of modal expressions in the global organization of connected speech. Most studies on modality, particularly in the field of child language, have adopted a grammatical approach, focusing on certain forms (mostly modal verbs and adverbs) and ignoring other resources used to express modal meaning. As languages vary greatly in the kind of expressions related to modal meaning and the degree of grammaticalization of the modal system, research in this area should first determine the particular characteristics and resources related to modality in the corresponding language. In Spanish, the system of epistemic modality ranges from inflected forms (e.g. subjunctive ‘irrealis’) to clause complexes (e.g. counterfactual conditionals).

More recently, particularly within the systemic functional approach, research on modality is no longer confined to the study of modal verbs (Otaola, 1988) or modal (evidential) particles (or morphemes) in languages with highly grammaticalized modal systems (see Bermúdez, 2004, for Spanish grammaticalization of modality). The interest has shifted to all types of linguistic realizations of modal meaning (Halliday, 1994).

¹ This example is taken from the corpus as are most examples below (with the exception of example 9).

Although it seems complicated to explain the subtleties that linguistic systems offer as options for speakers to express the degree of commitment with the propositional content of an utterance, all language users make use of these options with no apparent effort. The question that arises, then, is how children develop these complex abilities.

Similarly, in adult speech, modality seems to have a clear discursive function which studies have not accounted for so far (Thompson, 1996). In narrative discourse, the main concern of this study, modality has a central role. The narrator builds characters in the ‘story world’ that acquire an identity and a hierarchy (in relation to other story characters) by means of modality projected in the narrator’s voice or other voices in the narrative (Mushin, 2001). Therefore, in this paper the narrative voices will be studied in search of their contribution to the construction of narrative perspective.

In view of all this, the research questions which encompass both problematic aspects discussed above, uses of modal expressions and their discursive function, and which have guided the present study, are the following:

1. What linguistic forms do Venezuelan school age children use to express epistemic modality?
2. How does the use of these expressions vary with children’s age, socio-economic status and gender?
3. How does the use of epistemic modality vary with the type of narrative discourse?
4. How do these expressions contribute to the construction of narrative perspective?

Method

The sample for this study has been collected in three public and three private schools in Caracas, Venezuela. The three private schools were selected among the most prestigious schools in the country, in order to ensure that the children selected from these schools belong to affluent, high SES (socio-economic strata) families. The three public schools were situated in poor neighborhoods and the children selected from these schools lived in areas where the majority of the population is below the line of extreme poverty.²

The population from which the sample was drawn consists of children attending first and fourth grade of primary school. These two age groups have been selected due to the fact that findings in research on children’s narrative suggest that important developmental changes take place in this age period (Bamberg & Damrad Frye, 1991; Berman & Slobin, 1994; Peterson & McCabe, 1983).

² A relatively recent study found that 81% of the Venezuelan population lives in extreme poverty, of which 41% lives in critical poverty (Maza Zavala, 1997).

Table 1. Distribution of the sample (n = 68)*

Grade	SES		Total
	Low	High	
1st grade	16	16	32
4th grade	18	18	36
Total	34	34	68

* The numbers in each cell represent the number of children in each group

The sample consists of 68 girls and boys (Table 1), drawn from a larger corpus of 113 interviews, described and analyzed in previous publications (Shiro, 2001, 2003).

The children in the sample are all Venezuelan-born Spanish speakers, showing normal development, whose parents are also native speakers of Venezuelan Spanish. Information on children's background includes the parents' occupation and educational level.

The children selected for this study belong to two age groups: first graders' mean age is 7;2 (s.d.³ = 5 months, minimum = 6;5, maximum = 7;11); fourth graders' mean age is 10;1 (s.d. = 5 months, minimum = 9;1, maximum = 10;9).

Procedures

After an observation period and once rapport had been established, the selected children were individually interviewed. Each child participated in four narrative tasks where they were expected to produce four narratives in two different narrative genres.

The narrative tasks

After a warm-up session in which personal information was elicited, each child participated in four tasks: two in which personal narratives were produced, and two in which fictional stories were told. For each narrative type, a structured prompt required the child to emulate the interviewer's prompt, and an open-ended prompt elicited a narrative by means of an open-ended question.

As discourse skills require the speaker to adjust to the context in which the discourse occurs, children must acquire the ability to respond appropriately to different prompts (Hudson & Shapiro, 1991). The four tasks selected for data collection in this study offer the possibility of examining a wide range of discourse abilities and narrative production in different contexts. In consequence, these tasks emulate situations that the child could encounter in spontaneous conversations in everyday life (open-ended tasks) or in the classroom (structured tasks).

³ Standard Deviation

Narratives of personal experience

The procedure for eliciting narratives of personal experience is described as follows:

- a) STRUCTURED TASK FOR PERSONAL NARRATIVES: the interviewer related a brief personal anecdote (the structured prompt) and asked the child whether something similar had happened to her (adapted from Peterson & McCabe, 1983). As the findings in a pilot study show (Shiro, 1995) not all the prompts were equally effective with the children; therefore, three different anecdotes were chosen to help the child produce a narrative at an optimal performance level. The three anecdotes were the following:
- i) *El otro día subí al Ávila y de repente de entre las matas salió una culebra. Me asusté y salí corriendo. ¿A ti te pasó algo parecido?* (“The other day I went up the mountain and all of a sudden a snake came out of the bushes. Has something like that happened to you?”)
 - ii) *Ayer en la cocina estaba cortando el pan. El cuchillo estaba afilado y en vez de cortar el pan, me corté el dedo. Tuve que ir a la clínica para que me curaran. ¿A ti te ha pasado algo similar?* (“I was cutting bread yesterday in the kitchen with a sharp knife. Instead of the bread, I cut my finger. I had to rush to the hospital to have it stitched. Has anything like that happened to you?”)
 - iii) *¿Alguna vez te llevaron de emergencia a algún hospital?* (“Have you ever been taken to the hospital with an emergency?”)

The children produced 208 narratives in response to these prompts.

- b) OPEN-ENDED TASK FOR PERSONAL NARRATIVES: the child was asked to relate a scary experience. (adapted from Labov, 1972). The question asked was *¿Te pasó alguna vez que te hayas asustado?* (“Has anything scary ever happened to you?”). If the child answered affirmatively, the interviewer said: *Cuéntame.* (“Tell me about it.”). If the answer was negative, the interviewer tried to insist by asking questions like *¿Estás seguro?* (“Are you sure?”) *¿Nunca te sentiste asustado?* (“You have never been scared?”). This procedure generated 74 narratives of personal experience that were analyzed in this study.

Fictional narrative task

Fictional narratives were obtained in the following tasks:

- a) STRUCTURED TASK FOR FICTIONAL NARRATIVES: The child was shown a wordless animated film (*Picnic*, Weston Wood, 1993) and was asked to summarize what she had seen.⁴The film was shown twice to ensure children’s

⁴ It is important to note that in Caracas, low SES children have TV sets in their homes, and some may even have a VHS. Therefore, the activity emulated in this task was familiar to both low and high SES children. I would even venture to suggest, based on the information drawn from the interviews, that low SES children spend more time in front of a TV screen than high SES children do. However, this estimate should be confirmed by further research.

Table 2. Distribution of narratives (n = 419)

SES	NARRATIVE				Total
	Personal		Fiction		
	Structured	Open	Structured	Open	
High	106	38	34	34	212
Low	102	36	34	35	207
Total	208	74	68	69	419

recall and each child was asked to relate the story immediately after the second viewing. Not surprisingly, all children produced a narrative as a response to this prompt (68 narratives for this sample). The interviewer was not present at the projection to ensure that the child would be genuinely motivated to tell the story to the interviewer, creating thus a more natural environment for the interaction and respecting the Principle of Cooperation (Grice, 1975).

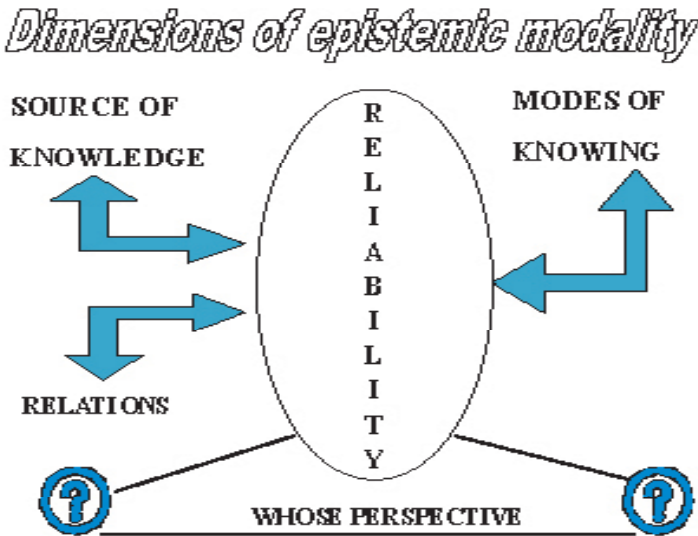
- b) OPEN-ENDED TASK FOR FICTIONAL NARRATIVES: The child was asked to relate her favorite film, video or TV program. When the child listed some of her favorite films, the interviewer asked *¿Cuál de todos te gustaría contarme?* (“Which would you like to recount for me?”). The children often alleged that they could not recall the whole story; in these cases, the interviewer asked them to relate only the part that they remembered best. In this task, 69 narratives were produced.

As a result, in all four tasks, 419 narratives (see Table 2) were coded and analyzed for this study.

As Table 2 shows, some of the elicitation procedures were more successful than others. For the purposes of this study, the narratives were grouped into two categories: personal and fictional, merging the two different elicitation procedures (open-ended and structured prompts), and enabling thus a comparison between personal and fictional narratives.

The entire interview was recorded and transcribed in CHAT (*Codes for the Human Analysis of Transcriptions*, Sokolov & Snow, 1994) by the researcher and a research assistant. The transcriptions were divided into clauses, coded and analyzed, using CLAN (*Computer Language Analysis*, MacWhinney, 1994). The coding system, designed especially for this study, identified and classified all modal expressions produced by the child. In addition, modal expressions were coded for degree of reliability and the type of perspective related to it (mainly, first or third person). For the analysis of modal expressions, the frequency in the entire interview and in each narrative type was calculated. These frequencies were combined in different ways to compute the dependent variables.

Figure 1. Dimensions of epistemic modality



The analytic scheme

For the measurement of modal expressions, the analytic categories were adapted from Chafe (1986) and Shiro (1996). For this purpose, a multidimensional coding system was designed. In other words, modal expressions were grouped in four large categories: source of knowledge, mode of knowing, relation and reliability, following the guidelines offered in Chafe (1986).

In this coding scheme, the central axis is reliability, to which the other dimensions are related, as shown in Figure 1. Each modal expression was coded for the kind of perspective from which it was used (the narrator’s perspective was signaled as ‘first person’ because it represents the voice of the child, and a character’s perspective was identified as ‘third person’ as it represents the voice of the ‘other/s’). Utterances directed to the interviewer were coded as ‘second person’. Only a few modal expressions in ‘second person’ were found in the interviews and, usually, they did not belong to the narrative structure; therefore, they were not included in the analysis. Furthermore, the perspective of some modal expressions was impossible to identify and, as a result, they were not coded.

In what follows, each analytic category will be explained and exemplified.

Source of knowledge

The speaker makes reference to the source where the information had its origins and, at the same time, the degree of reliability of the information is reinforced or weakened. This aspect, together with **MODES OF KNOWING**, is usually labeled as

EVIDENTIALITY (Chafe, 1986; Bermúdez, 2004). The source of knowledge includes the following subcategories:

- a) **Evidence.** Expressions in which the speaker signals by means of which of the 5 senses (seeing, touching, hearing, tasting or smelling) the information was retrieved.

Example 6. *Yo lo vi en el cine* (“I saw him in the cinema”).

The visual evidence, especially in the first person, reinforces the reliability of the information conveyed. Thus, the example above was coded for first person perspective and high reliability.

- b) **Language** is another source of information that the speaker can indicate. When reporting the voice of others, the speaker distances himself/herself from the propositional information in the utterance.

Example 7. *“Ya va” dijo el ratoncito.* (““In a minute” said the little mouse.”)

In this example, the speaker marks clearly that “In a minute” is a voice that belongs to somebody else. Given that the little mouse seems to be promising that some action will take place in a short time, the speaker remains detached from this promise. The reliability of the information conveyed in this utterance is weak (the degree of reliability depends on the image of the story-world character whose voice is reported). Likewise, it is impossible to detect whose perspective is adopted in the quoted text (who is going to do or experience something in a minute?). As a result this expression of source of knowledge could not be coded for perspective.⁵

- c) **Hypothesis** is a source of knowledge conveyed with a high degree of uncertainty. The expressions in this group suggest total or partial lack of evidence and, as such, the degree of reliability depends on the hypothetical conditions involved:

Example 8. *Si no le daban el chaleco antibala, me mataba a mí.* (“If they didn’t give him the bullet proof jacket, he would kill me.”)

Example 9. *Si no le hubieran dado el chaleco antibala, me habría matado a mí.* (“If they hadn’t given him the bullet proof jacket, he would have killed me.”)

⁵ Note that the perspective of the reporting verb (*dijo*), which belongs to the subcategory of HEARSAY (Chafe, 1986), is clearly third person, as it makes reference to the little mouse. The impersonal perspective refers to the cited language (*ya va*) which does not mark whose urgency it refers to.

Note that the conditions in example 8 indicate that there is a considerable chance that the narrator may come under attack, whereas in example 9, the danger of being killed is only mentioned but no longer exists.⁶

Modes of knowing

The expressions included in this category indicate what type of knowledge is enclosed in the utterance. As we shall see below, these expressions are closely related to those included in the source of knowledge.

- a) **Belief:** Expressions indicating that the utterance is based on belief. The coding system indicates the person whose belief is reported.

Example 10. *Yo creo que no paré de correr.* (“I think I didn’t stop running”)

- b) **Induction:** Expressions referring to inferences drawn from evidence (the evidence may or may not be present in the utterance). These expressions are closely related to those indicating source of knowledge (*evidence*).

Example 11. *El ratoncito se pudo haber caído cuando el camión chocó.* (“The little mouse must have fallen when the truck crashed”).

- c) **Hearsay:** Closely related to *language* (source of knowledge) introduces the quoted language using a reporting verb.

Example 12. *Le dijo que me tenían que operar.* (“He **told** her that they must operate”).

There are cases when the quoted language is not reported, and only the reporting verb is present.

Example 13. *El abuelo le contó todo.* (“Grandpa **told** her everything”).

- d) **Deduction:** In close relation with *hypothesis*, it refers to the addresser’s intentionality, and as such, it is used to indicate the relative degree of reliability conveyed in the utterance.

Example 14. *Tú te vas a aburrir con esa película.* (“You are going to get bored with that film”/“That film is going to bore you”).

⁶ It is worth mentioning that in both cases, if the narrator is talking to the interviewer, the context makes it absolutely clear that the narrator survived the incident. The interpretation would be completely different if the perspective of the hypothesis changes, and a character in the story world is in danger of being killed.

Reliability

In general, all utterances can be analyzed in terms of this epistemic dimension. As mentioned before, the addresser projects to what extent the information is reliable. Interestingly, the total absence of modal expressions conveys the highest degree of certainty. The presence of any modal marker can only decrease the certainty expressed (e.g. “No doubt they’ll come” projects more doubt than “They’ll come” in similar contexts). In this study, we only examine the presence of modal expressions; therefore, utterances where modal expressions are absent have not been coded. The reliability of an utterance has been coded in four subcategories:

- a) **Quantity:** It expresses reliability in terms of physical characteristics such as number, size, etc. The quantity has been coded as low or high, depending on the modal expression found in the utterance:

Example 15. *Nadie es gordo, todos son normales.* (“**No one** is fat, **everybody** is normal”).

- b) **Probability:** Reliability is expressed by evaluating the possibility or necessity of the information in the utterance. Probability can also be high or low:

Example 16. *Tal vez mi papá si está trabajando.* (“**Maybe** my father is working”).

- c) **Frequency:** Reliability is expressed by indicating the number of times the process indicated in the utterance took place. It can also be high or low.

Example 17. *Me gustó siempre, desde chiquita, la medicina.* (“Ever since I was little, I have **always** liked medicine”).

- d) **Plausibility:** The addresser indicates how true or plausible is the information in the utterance. The expressions were coded as plausible or not.

Example 18. *Anda diciendo que es mentira.* (“He keeps saying that it is **a lie**”).

Note that this type of coding does not have mutually exclusive categories, so that it is usual for one modal expression to be coded for more than one category and thus, to carry multiple coding tiers. As we shall explain below, this has enabled us to group the codes in several ways in order to respond to the research questions.

Relation

This is a ‘ragbag’ category, which includes expressions that do not fit in the previous categories but signal nonetheless the speaker’s commitment.

a) **Expectations** refer to a group of expressions signaling the speaker's attitude.

Example 19. *Yo ya tenía dos novios.* ("I **already** had two boyfriends").

In this example, 'already' adds a temporal reference by which the speaker's evaluation of the process is implied. Expressions of vagueness (see example 20) and ambiguity have also been included in this category, as they indicate a lower degree of commitment on the speaker's part.

Example 20. *Juegan maquinitas y otras cosas más.* ("I play videogames **and other things**")

b) **Comparison** includes items compared implicitly or explicitly.

Example 21. *Yo también le pegué.* ("I also hit him").

Example 22. *El otro no llegó.* ("The other one didn't arrive").

Example 23. *El más pequeño se cayó.* ("The youngest fell down").

In these utterances the presence of comparison implies that the speaker adopts a certain evaluative perspective regarding the information that is being conveyed.

c) **Hedges** signal to what extent the information is mitigated or intensified.

Example 24. *Me conozco casi todos los programas de televisión.* ("I know **almost** all TV programs").

Example 25. *Ella a veces es medio bruta.* ("She is sometimes **half** silly").

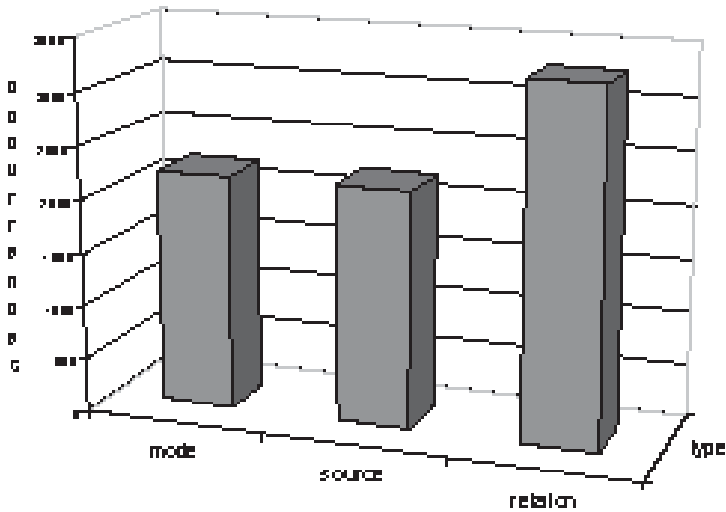
The codes indicate whether the hedging expression mitigates or intensifies.

Discussion and interpretation of the data

Use of epistemic modal expressions

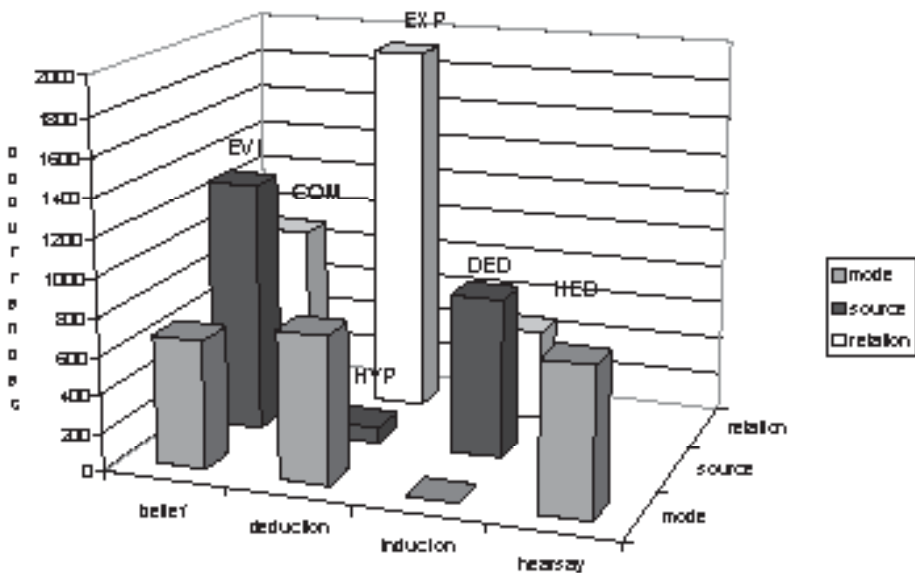
To address the first research question which refers to the most frequently used modal expressions by Spanish-speaking school-age children, I analyzed the number of occurrences in each transcript. Graph 1 shows the number of occurrences in each of the three dimensions of epistemic modality. Of more than 7000 expressions analyzed, the largest group corresponds to *relation* (the category that we have labeled as a ragbag category). It is worth mentioning that the number of occurrences in *source of knowledge* is similar to those in *modes of knowing* (these two groups are more representative of epistemic modality in a narrow sense and they include the grammaticalized options of the epistemic modal system, whereas *relation* includes the lexical options).

Graph 1. Number of modal expressions produced

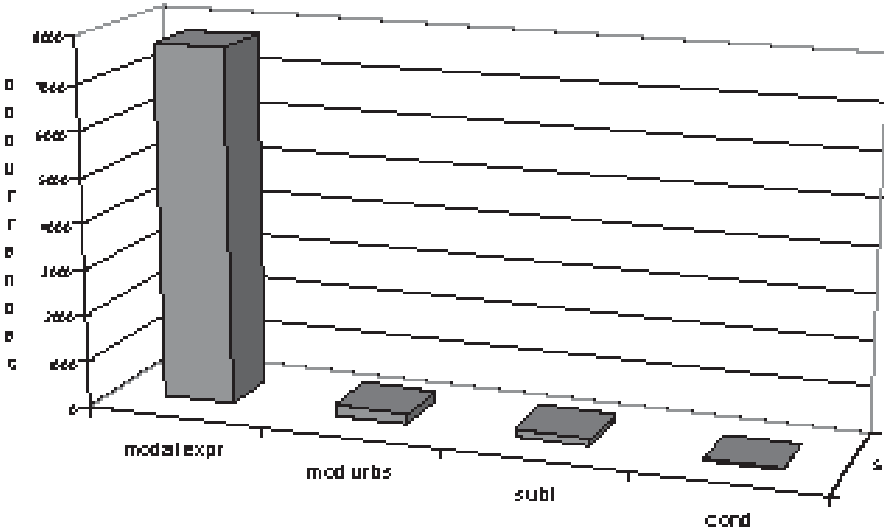


Graph 2 represents the number of occurrences of each type of modal expressions. The subcategory most frequently used by the children corresponds to *expectations*, which belongs to *relation*, *evidence in source of knowledge* is the second most frequent type of modal expressions and *comparison in relation* is the third in terms of frequency of use.

Graph 2. Number of modal expressions in each category



Graph 3. Comparison between the total number of modal expressions and the number of modal verbs, subjunctives and conditionals

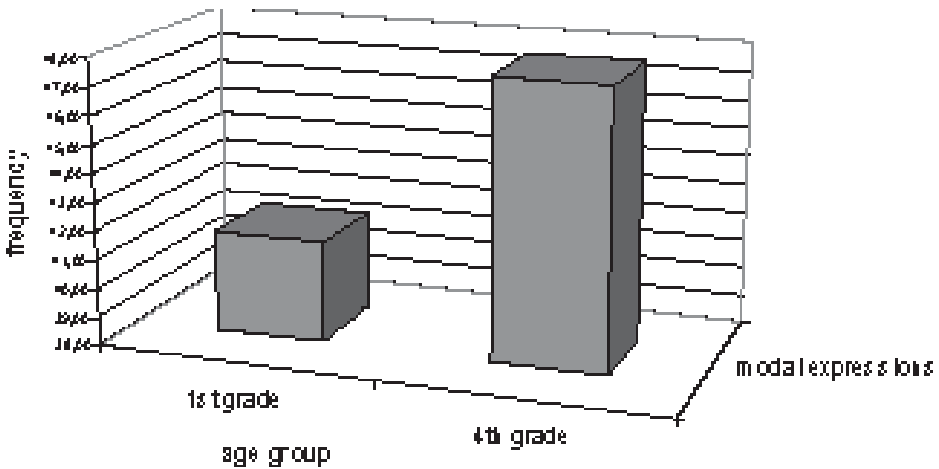


It is possible that children use expressions included in the category of *relation* more frequently because the linguistic forms associated with this category are simpler. Usually, they correspond to lexical forms, words like *ya* “already”, *todavía*, “still”, expressions of vagueness or fixed expressions, like *y broma* “and things”, and can serve as props when searching for a more precise word. They can also help the difficult job of online planning in oral production more than a complex syntactic structure or a complicated inflected verb form required in the other (more grammaticalized) categories. When we focus on the typical skills related to epistemic modality, we find that *evidence* (see Graph 2 and example 6) as *source of knowledge* is the most frequent, followed by *deduction*, *hearsay*, *language* and *belief*. It is easy to understand that children tend to refer to their senses to reinforce the reliability of the information in their utterances. Sensory evidence seems to be a straightforward notion, easier to acquire than, for example, *hypothesis* (see examples 8 and 9). In fact, the rare use of *hypothesis* and *induction* (as in example 11) in the sample is again not surprising, given that, in addition to the cognitive complexities of these meanings, these expressions also require complicated syntactic structures (Pérez-Leroux, 2001).

More surprising is the low frequency of modal verbs and subjunctive and conditional inflected verb forms that signal modality. In the coding process, each modal verb was marked (*poder*, *deber*, *tener que*, etc) whether or not it carried epistemic meaning (these modal verbs can have other meanings, such as *deontic*⁷ related to

⁷ Studies in this area show that deontic meanings of modal forms are acquired earlier than epistemic meanings (Day, 2001).

Graph 4. Frequency of modal expressions by age groups



obligation). As Graph 3 shows, the number of modal verbs and inflected verbs with modal meaning is very low when compared to the abundance of other modal expressions (lexical choice, syntactic constructions, subordination, etc.). This considerable difference in frequencies certainly leads us to suppose that research on children's developing abilities to use epistemic modality should not be limited, as has been traditionally, to the study of modal verbs, subjunctives and conditionals. Instead, a broader view of modality should be adopted, whereby the researcher looks for all expressions carrying modal meaning in a particular language.

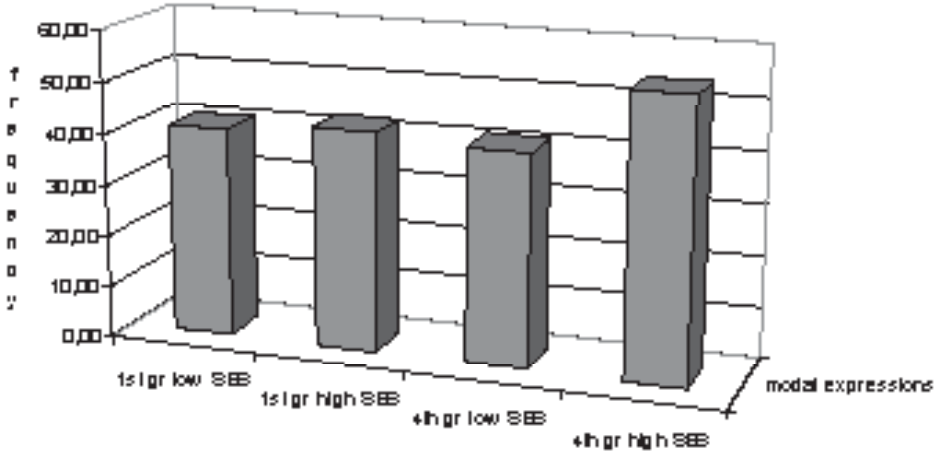
Developing skills to express certainty

To address the question of how children develop the ability to use epistemic modality, the frequency of modal expressions was calculated in order to control for the length of the interview. For this purpose, the number of occurrences in each interview was divided by the number of clauses produced by the child. The result was multiplied by 100 to obtain a score that represents approximately the percentage of clauses containing modal expressions in each interview. Thus, the production of first and fourth graders could be compared, irrespective of the length of interviews.

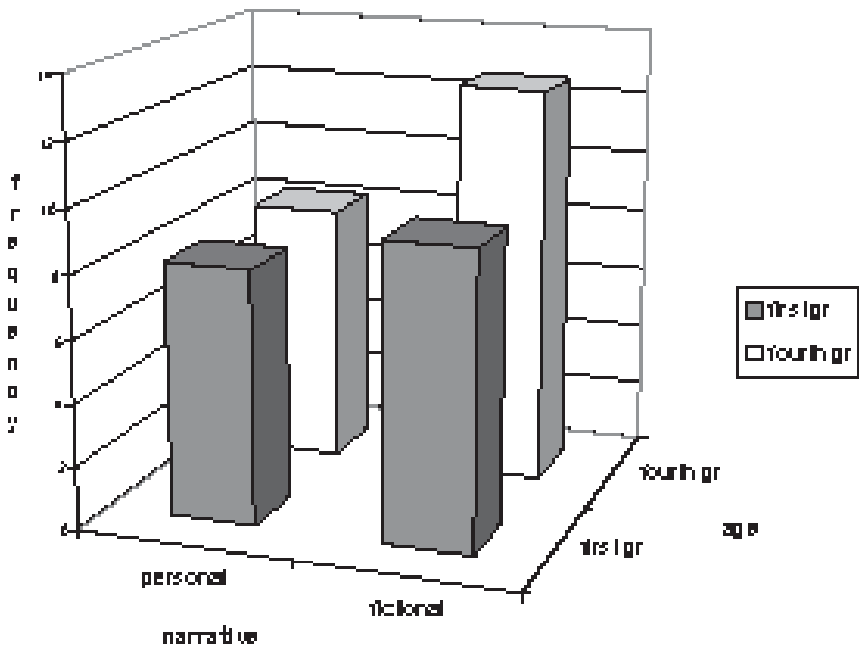
In Graph 4 we observe that the average percentage of modal expressions used by fourth graders is considerably higher than that used by first graders. This statistically significant difference ($F_{1,66} = 6,294, p < 0,15$) implies that children between 6 and 11 years of age are still developing the abilities associated with the use of epistemic modals, as older children use them more frequently than do their younger peers.

If we analyze the combined effect of age and SES on the frequency of modal expressions, we find that the tendencies are diverse. In Graph 5, we observe that the

Graph 5 Average frequency of modal expressions by age and SES



Graph 6. Average frequency of modal expressions by age and narrative task



increase in frequency is found mostly in the high SES group. High SES fourth graders use considerably more modal expressions than high SES first graders. This developmental shift is not found in the low SES group. Low SES first and fourth graders use, on average, similar percentages of modal expressions. As a result, there is an interaction effect ($F_{3,64} = 4,666$ $p < 0,005$) of age and SES on the frequency of modal expressions. This finding suggests that the development of these skills is different in the two SES groups. It is possible to interpret that low SES children experience a similar developmental shift at a later age period than the one examined in this study.

Developing skills in each narrative task

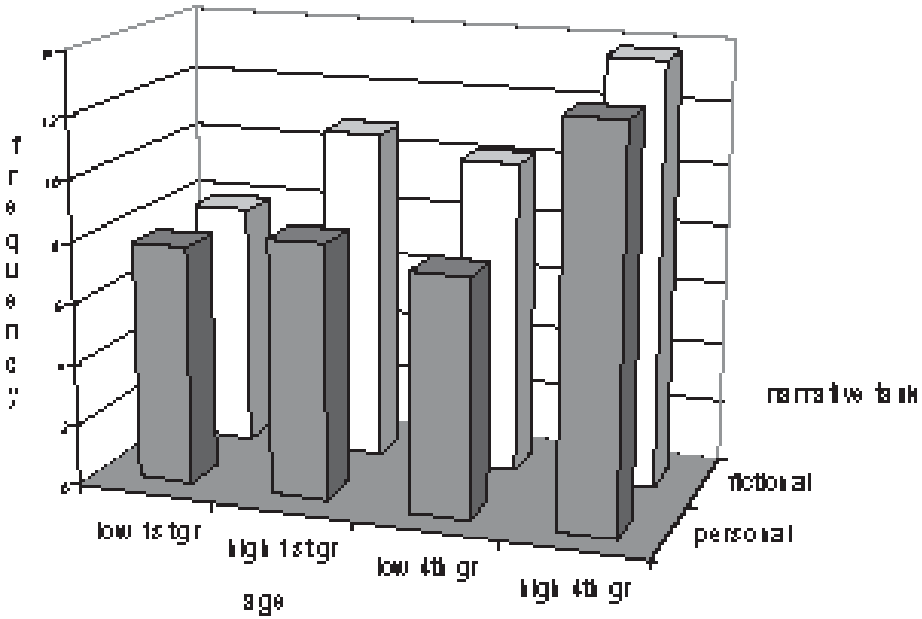
As we examine how children use epistemic modality in each narrative task, we notice that the development of these skills follows different paths. Graph 6 shows that children use modal expressions more frequently in fictional narratives than in personal accounts. Furthermore, older children include, on average, more modal expressions in fictional stories than do younger children. The conclusions that can be drawn from this finding is that the different uses of epistemic modality in the two types of narratives can indicate the child's adjustment to genre requirements, and thus can shed light on the development of generic skills. On the one hand, it seems that the development of fictional and personal narratives follow different paths and, on the other, it seems that the context of fictional narratives requires the use of more modal expressions than the context of personal narratives (Shiro, 2003).

Finally, as we examine the combined effect of age, SES, and narrative task on children's use of epistemic modality, we find, as shown in Graph 7, that low SES children experience an important developmental shift in the use of modal expressions in fictional stories, a development that cannot be found in personal narratives in the same children during the same age period. In high SES children, the frequency of modal expressions increases in both narrative types, and it reaches similar levels in the older age group. This similarity leads us to suppose that the differentiated use of these expressions in the two types of narrative is due to developmental processes, rather than to characteristic features of the two narrative types in adult speech. This interpretation, however, should be confirmed by studying uses of epistemic modality in adults' production of fictional and personal narratives.

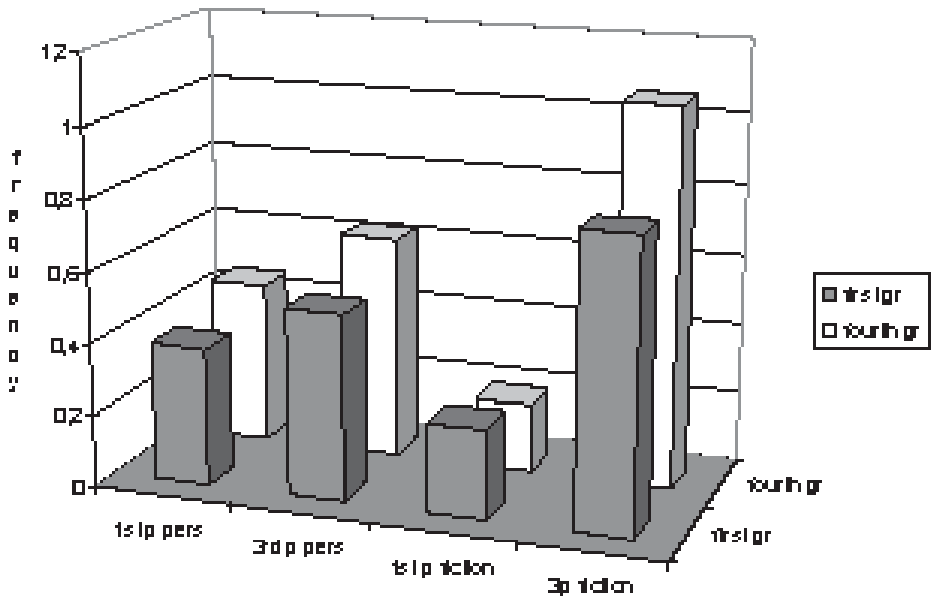
The construction of narrative stance

In order to examine how modal expressions contribute to the construction of narrative stance, I have compared the uses of first person (singular and plural) modal expressions with those of third person (singular and plural). To identify which perspective corresponds to a modal expression, I have analyzed the verb, if present (in a finite form), and the addresser's relationship to the expression in focus. In certain cases, coded as impersonal, the addresser chooses not to project the particular character from whose perspective the utterance is construed (as in example 7). These cases

Graph 7. Average frequency of modal expressions by age, SES and narrative task



Graph 8. Developing perspective in fictional and personal narratives



were added to the third person group given that the main interest in the present study is to detect the contrast between the expressions related to ‘self’ as opposed to expressions belonging to the perspective of ‘the other/s’. When speakers opt not to present someone’s perspective overtly, they distance themselves from the information conveyed in a similar way or maybe to a greater extent, than when they express the information from the ‘other’s’ point of view.

As displayed in Graph 8, the frequency of modal expressions in the third person increases considerably in fourth graders’ fictional stories, but it appears quite frequently in first graders’ fictional stories as well. Evidently, it is not surprising that fictional stories tend to be told from a third person perspective (as the main character is generally other than the narrator), whereas personal experience accounts tend to adopt a first person perspective. What is surprising is the presence of third person modal expressions in personal narratives. The anecdote that follows illustrates the skilful combination of first and third person expressions.

Example 26.

*Bueno, una vez en casa de mi abuelo estábamos <todos>, y mi primo y yo, que yo tenía {como} cuatro años, mi primo tenía {como} ocho, subimos a al cuarto de mi abuelo. Entonces mi abuelo tenía una pistola debajo de la cama y mi primo la agarró y y disparó, pero se fue por la ventana el disparo y esa estaba <todo> blanco y yo salí corriendo, corriendo pa’ abajo y mi mi primo {también}. Entonces mi primo decía que [fui yo el que disparé]. Entonces mi abuelo le quitó las balas y me la dio para que **yo tratara de disparar** y [**no tenía fuerzas**]. Entonces ahí sabía, supieron que fue mi primo. [Juan, 10;8, high SES].*

“Well, once in my grandfather’s house, we were <all>, my cousin and I, I was {like} four years old, my cousin was {like} eight, we went up to my grandpa’s room. Then, my grandpa had a pistol under his bed and my cousin took it and fired. But the shot went through the window and <everything> was white and I ran out, running downstairs and my cousin {too}. Then my cousin said that [it was me who fired the shot]. Then my grandpa removed the bullets and gave me [the pistol] **so that I would try to shoot**, but [**I wasn’t strong enough**]. Then he knew, they knew that it was my cousin.”

The legend below indicates the type of modal expressions found in this short narrative (the label is inserted in the corresponding code, i.e. [source of knowledge] should be interpreted as expressions enclosed in brackets refer to *source of knowledge*; **bold type** signals first person perspective):

{relation} – *relation*

modes of knowing – *modes of knowing*

[source of knowledge] – *source of knowledge*

<reliability> – *reliability*

In this narrative of personal experience, John uses 10 modal expressions, but only two indicate first person perspective (the narrator's perspective). However, the skilful way of presenting the events allows the interlocutors (in this case the interviewer) to identify clearly the narrator's point of view with relation to the events and the responsibilities assigned to each story character. Thus, this very short narrative illustrates how modal expressions are used to combine voices in the construction of narrative stance.

Conclusions

Based on the above analysis, it is possible to conclude that Venezuelan children use a wide selection of lexical and grammatical resources to express epistemic modality. The most frequently used expressions belong to the category of 'expectations', lexical choices that signal speaker attitude with respect to the information contained in the utterance. Moreover, the findings in this study lead to an important methodological implication: the presence (in this type of interaction) of modal verbs and their contribution to expressing epistemic modal meaning is scarce or negligible in comparison with the wealth of other linguistic resources used for the same purpose. As a result, studies on development of modal verbs (and 'irrealis' verb forms such as conditionals and subjunctives) in Spanish speakers take only a partial view of children's developing abilities to express (un)certainly in language.

Findings in the present study suggest that children between 6 and 11 years of age are still developing abilities related to uses of epistemic modality. Thus, frequency of use increases with age, but the increase is considerably greater in high SES children's language production. This difference between socio-economic groups may imply either that these abilities develop at a slower pace in the low SES group or that these abilities lead to different endpoints, most probably because there are important differences in this respect among adult speakers belonging to different social classes.

It is also important to highlight that the use of modal expressions differs in the two narrative types examined in this study. The findings suggest that children adjust their speech to genre requirements and the same child displays different uses when producing a narrative of personal experience or a fictional story. However, it was found that high SES children use similar frequencies of epistemic modal expressions in fictional and personal narratives. This similarity in frequency of use may imply that genre differences are displayed in the discourse functions of these expressions rather than in the frequency of occurrences. In fact, the analysis of our data indicates that children between 6 and 11 years of age use first and third person modal expressions in combining narrative voices, and thus, in construing narrative stance.

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