HOW TO DO THINGS WITH PARTICLES[1]

Johannes Heim, Hermann Keupdjio, Zoe Wai-Man Lam,
Adriana Osa-Gómez and Martina Wiltschko
University of British Columbia

1.   Introduction

In this paper, we explore the grammar of two types of speech act modifiers: particles and sentence intonation. In particular, we explore the modification of declarative clauses. A formally declarative clause (SVO order) is typically used as an assertion. It may, however, be modified by either sentence intonation or a sentence-peripheral particle, and the result is an utterance which is associated with a different type of speech act, namely a biased question or a request for confirmation, respectively. We further explore the cross-linguistic variation that such speech act modifiers display. In particular, we investigate the difference between tonal and non-tonal languages. We show that in tonal languages, particles take over the function of sentence intonation. And finally, on the basis of our findings, we conclude that the construction of speech acts is mediated syntactically. As such, we contribute to the growing literature which can be characterized as a revival of Ross' (1970) performative hypothesis. According to this neo-performative view, properties of speech acts and discourse more generally, are syntacticized (Speas and Tenny 2003, Hill 2013, Haegeman and Hill 2013). Studying speech acts requires us to investigate utterances in context. That is, (most) speech acts are directed at an addressee (A), and thus some aspects of the utterance directly reflect A-orientation. While A-oriented speech is a matter of course in daily conversations, such conversations are not always the best empirical basis to answer specific research questions, for all the familiar reasons (lack of negative data, lack of controlled context, etc.). For this study, we collected data via controlled story-board elicitation (Burton and Matthewson 2011), which allows for the exploration of the interaction between the speaker (S) and A. In particular, the language consultants were shown a series of pictures (story-boards) that provided enough context for the observer to know how much each of the involved speech act participants already knows about the topic, i.e., it establishes the common ground. The language consultants were asked to fill the appropriate utterance into the speech-bubble provided in the story- board. To collect negative data, we presented the consultant with a story-board and asked whether a given utterance is felicitous in the relevant speech-bubble.

The paper is organized as follows. In section 2, we introduce the empirical problem: declarative clauses may be modified by intonation as well as by means of sentence-peripheral particles. As a result, not only the form of the clause is affected but also the discourse context. In section 3, we introduce our proposal of speech act modification, according to which there are two distinct syntactic layers dominating a root clause: one

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responsible for encoding S *commitment*, the other encoding the *Call on the Addressee* (henceforth CoA) in the sense of Beyssade and Marandin (2006). In English, the CoA is realized via intonation, whereas S commitment is modified by sentence-peripheral particles. Each of these strategies is further discussed in the analysis presented in section 4. Given that sentence intonation is not readily available in tonal languages, the question arises as to how the CoA is encoded in such languages. We turn to this question in section 5, where we establish strategies of speech act modification in Cantonese and Medumba. We show that in both languages, particles are used instead of sentence intonation. In section 6 we conclude.

2.   The empirical problem: modified declaratives

2.1   Unmarked declaratives: the *"I'm telling you"* context

We take it that unmarked declarative clauses are typically used for assertions. Consider the context in (1).

(1)   **Context:** Mary, who just got a new dog, runs into Anne, who does not yet know about Mary's dog. Since Mary is so excited about the fact that she has a new dog, she wants to tell Anne right away and utters:
*I have a new dog *

The sentence *I have a new dog* is formally declarative by virtue of two factors: **i)** it has SVO word order; and **ii)** it is associated with a falling intonation (indicated by \). This is a typical context for declaratives. It is characterized by three discourse conditions: **i)** S believes the proposition (*p*) conveyed by her utterance (Utt). **ii)** A does not know *p*; and **iii)** S wants A to adopt *p* into her set of beliefs (SoB) (Bach and Harnish 1979). Thus, the utterance of a simple declarative can be prefaced with a sentence that expresses S's desire to tell A that *p*, as in (2).

(2)   (*I have something to tell you.) I have a new dog*

Henceforth we refer to this type of context as the *"I'm telling you"* context.
      We now show that a simple declarative like (1) can be modified by changing the intonation and by adding a sentence-peripheral particle. We discuss each of these modifiers in turn.

2.2   Rising declaratives: the *"I don't believe it"* context

In English, SVO sentences of the form in (1) are not only compatible with falling intonation (\) but also with rising intonation (/). Such sentences are known as *rising declaratives* (Gunlogson 2003). To see how rising declaratives are used, consider the context in (3).

(3)   John mistakenly believes that Anne has a new dog. When he runs into Anne, he asks her how her new dog is doing. Naturally Anne is confused and responds:
I have a new dog /

This is a typical context for rising declaratives. It is characterized by three discourse conditions: **i)** S does not believe *p* conveyed in Utt; **ii)** A seems to believe *p*; and **iii)** S calls on A to confirm that *p* is true. Thus, the utterance of a rising declarative can be followed by a sentence that expresses S's disbelief as illustrated in (4).

(4)   *I have a new dog/ (I don't think so.)*

Henceforth we refer to this type of context as the *"I don't believe it"* context.

2.3   Sentence-final *eh*: the *"Confirm that you know"* context

Finally, simple declaratives of the form in (1) can also be modified by sentence final particles such as *eh* in (Canadian) English. To see how declaratives modified by *eh* are used, consider the context in (5).

(5)   Mary, who just got a dog, ran into her friend John. Mary cannot remember whether she has already told John that she has a new dog. To be sure she utters:
I have a new dog, eh/

This is a typical context for declaratives followed by *eh*. It is characterized by three conditions: **i)** S believes *p* conveyed in Utt; **ii)** S suspects that A knows *p* and **iii)** S wants A to confirm that A does indeed know *p*. Thus, this utterance can be embedded in a clause that expresses S's suspicion that A already knows *p*.

(6)   *You know I have a new dog, eh/.*

Henceforth we refer to this type of context as the *"Confirm that you know"* context.
We have now established three types of contexts that serve as the backdrop for three distinct speech acts, which in turn are expressed with three different types of clauses, all of which are based on sentences that are formally declarative. The change in discourse conditions reflects a change in the speech act expressed in each of these sentences. This is summarized in the following table.

clause-type	falling declarative	rising declarative	*eh*-declarative
speech act	assertion	biased yes/no question	request for confirmation
I'm telling you.	✓	✗	✗
I don't believe it.	✗	✓	✗
Confirm you know.	✗	✗	✓

The question we pursue here concerns the relation between the speech act type and the form of the clause.

3.   The syntax of speech acts

The question regarding the relation between the form of the clause and its speech act is a question that lies at the heart of linguistic theory: what is the relation between form and interpretation? Within the realm of phenomena that are clearly identifiable as being part of sentence grammar, the answer given within the generative tradition involves recognizing that syntactic structure and computation serves as a mediator between form and interpretation. This is reflected in the fact that within the current minimalist model of the architecture of grammar (i.e., the so called Y-model), there is no direct relation between PF (form) and LF (interpretation).
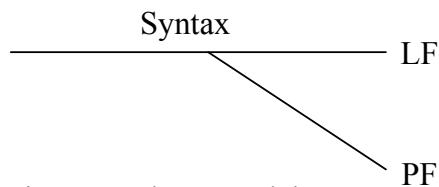
Syntax
LF
PF

Figure 1: The Y model

In line with much recent work on the syntax-discourse interface, we suggest that the relation between clause-type and speech act type is also mediated by syntax. More precisely, we suggest, following Ross (1970), that each clause is embedded in a larger structure that is responsible for encoding the discursive interplay between S and A. In the proposal of Ross (1970), this structure was conceived of as a regular matrix clause, roughly paraphrasable as *I'm telling you that S*. Our proposal is an update of this hypothesis in that it identifies the embedding structure as the highest functional layer in the extended projection of the clause. And this, we propose, is the structure where speech act properties are encoded. We refer to this layer as the *grounding layer*.

Following Beyssade and Marandin (2006), we propose that modified speech acts are complex. We propose that in English, different speech act modifiers are associated with different layers of the clausal architecture. In particular, we propose that there are two distinct functional projections in the grounding layer, each associated with a different function. Particles play a role in the expression of the commitment of S towards what is being said, and intonation plays a role in the expression of the CoA. Thus, following the work of Pierrehumbert and Hirschberg (1990), we assume that intonational contours are best analysed as intonational morphemes (cf. also Truckenbrodt 2012). We argue that the particle *eh* modifies what is being said while the intonational tune modifies the CoA. This is schematized in (7).

(7) The grounding layer in English
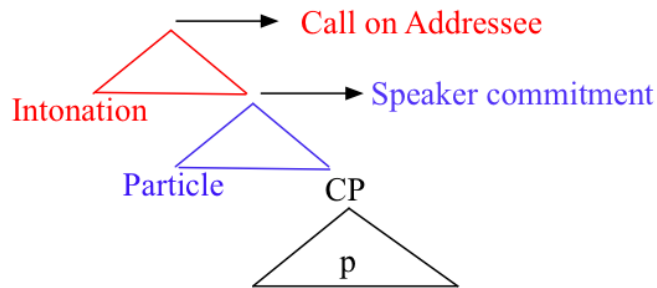
4. Analysis

In this section, we show how our proposal accounts for the observed modification in speech acts. In particular, recall the discourse conditions we identified for the three types of clauses, summarized in the table below.
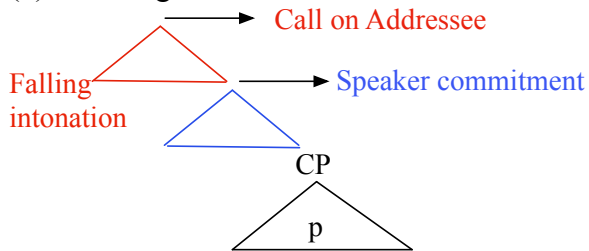
	Falling declarative	Rising declarative	Eh-declarative
Speech Act	Assertion	Biased yes/no question	Request for confirmation
S commitment (*What S says*)	*p* is true	I don't believe *p*	I believe you believe *p*
CoA (*What S wants A to do*)	Believe *p*	Tell me if *p* is true	Tell me if that is true.

According to the proposal introduced in section 3, rising intonation modifies the CoA whereas the particle *eh* modifies S commitment. The analytical challenge then is to understand why both S commitment and CoA appear to differ in both rising declaratives and in *eh*-declaratives. We first discuss regular falling declaratives (4.1). This will allow us to establish the base-line since such declaratives are considered unmodified speech acts. We then move on to discuss rising declaratives in section 4.2 and *eh*-declaratives in section 4.3.

4.1 Falling declaratives and the mapping between clause type and speech act

Consider again the "*I'm telling you*"-context which constitutes the appropriate discourse condition for assertions. The example in (1) has a falling declarative sentence with assertive force. S is committed to the truth of *p* and wants A to believe *p*. Falling declaratives are constructed by means of a declarative clause type (SVO) and falling intonation. Given our proposal, we thus postulate the structure in (8) where the fall is associated with the layer of structure that encodes the CoA. (For the assumption that falling intonation is indeed associated with assertive force, see Pierrehumbert and Hirschberg 1990, Bartels 1999, Truckenbrodt 2013).

(8)   Falling declaratives

According to our analysis, S commitment is the layer of structure occupied by particles. but in falling declaratives, no particle is present. A felicitous assertion requires S to be committed to the truth of p (Bach and Harnish 1974). So how does the commitment to the truth of p come about? We suggest that this is a default interpretation in the context of declarative form in combination with falling intonation. That is, if S wants A to believe p, as explicitly marked by the falling intonation, then it is implied that S believes p. The assumption that there is in fact no explicit encoding of S commitment to p allows us to understand the fact that the same formal clause-type (SVO) is compatible with a question interpretation, namely in the form of rising declaratives to which we turn next.

4.2   Speech act modification by intonation: rising declaratives

Consider again a typical occurrence of a rising declarative as in (3) above. Crucially, in this context S could not use a falling declarative because the falling declarative commits S to the truth of p. And as shown in (9), unlike a rising declarative, a falling declarative cannot be followed by the qualifying statement which denies S's belief of p.

(9)   *I have a new dog \ (I don't think so).*

Thus, the effect of the rising intonation in the declarative clause is a biased yes/no question. Since, according to our analysis, intonation in English operates on the layer of structure responsible for CoA, we propose that a rising intonational morpheme associates at that layer as well, as in (10).

(10) Rising declaratives
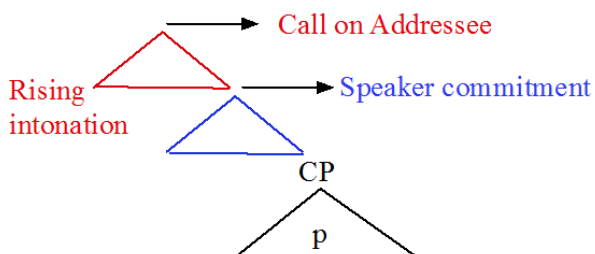
However, as was the case with falling declaratives, no specific marker appears to encode S commitment. The layer of structure we postulate to encode S commitment is not

associated with a particle. We propose that this is a virtue of the analysis. In particular, we argue that the fact that S doesn't believe *p* is not directly encoded in this utterance. Rather, it is merely a discourse context that is compatible with this utterance along with a series of other contexts, including one where S has no attitude towards *p* (neither belief nor disbelief). To see this, consider the following context.

(11) Mary knows that Anne wanted to get a new dog for a while. They haven't seen each other for a few weeks and Mary thinks that Anne may have gotten that dog by now but she is not sure. Next time they see each other the conversation goes as follows.

> Anne: *Guess what….*
> Mary: *You got a new dog/. I wasn't sure whether you did, that's why I didn't bring any treats*

In (11), Mary has no commitment towards *p* and the rising declarative is still possible. This is consistent with the assumption that S commitment is not explicitly encoded. Similarly, rising declaratives are also compatible with a context where S not only has no commitment to *p*, but *p* has not even entered her ground. Consider the context below.

(12) Mary's best friend Anne just got a new dog but Mary doesn't know that. Next time they see each other, the conversation goes as follows.

> Mary: *How are you doing?*
> Anne: *Great. I love my new dog!*
> Mary: *You got a new dog / (I had no idea)*

In (12), Mary first hears about Anne's new dog at the current discourse. After Anne's declaration that she loves her new dog, Mary can utter a rising declarative, followed by a sentence that indicates that this *p* has not entered her ground until the current conversation.

In sum, rising declaratives are compatible with any context in which *S* is not committed to the truth of *p*. This can either be by actively not believing *p*, or by not knowing whether or not *p* is true, or else by not having *p* in S's ground. The only context which is not compatible with a rising declarative is one where S is committed to the truth of *p*. Thus, a rising declarative is incompatible with the *"confirm that you know"* context as shown in (13).

(13) *"Confirm that you know"* context: Mary got a new dog. Mary runs into her friend John. Mary cannot remember whether she has already told John that she has a new dog. So she mentions:

> #*I have a new dog /*

As a consequence, a rising declarative cannot be followed by a sentence that asserts that S is committed to the truth of *p* as in (14).

(14) *You have a new dog / (#I knew that already.)*

This establishes that the declarative clause type is not intrinsically associated with a marker of S commitment. Instead, S commitment is only encoded indirectly by means of sentence intonation, which in turn encodes the CoA. Falling intonation encodes that S wants A to believe *p* (and thus A can infer that S believes *p*). In contrast, rising intonation encodes that S wants A to respond to the utterance by revealing her commitment to *p*. Thus, it appears that rising declaratives shift the commitment from S to A (Gunlogson 2003).

4.3   Modification by particles

We now turn to the second speech act modifier, namely the particle *eh*. Consider the context in (15).

(15)   Mary got a new dog. She runs into her friend John. Mary cannot remember whether she has already told him that she has a new dog. So she mentions:

   *I have a new dog, **eh**/*

The utterance in (15) consists of a declarative clause followed by the particle *eh,* which is sometimes classified as a discourse marker or an *invariant tag*. In this case *eh* modifies the speech act such that the utterance does not function as a declarative but instead as a *request for confirmation.* Hence, we refer to *eh* and similar particles as *confirmationals.*

   Interestingly, in (15) the request for confirmation concerns not the truth of *p* but instead whether A knows *p*. Thus, we have a situation where the simple declarative is modified in two ways. First, what is being said is modified in that *eh* introduces S's belief about A's belief thereby creating a complex proposition (p'). And second, S asks A to confirm that this complex *p* [Adr (Bel,p)]$_{p'}$ is in fact true. This question is asked by virtue of introducing the polar opposite alternative (not p).[2]

   This analysis correctly predicts that *eh* is incompatible with any context in which S knows that A does not believe or know *p*. Thus, an *eh*-declarative cannot be marked as being surprising to A as in (16).

(16)   a. # ***Guess what***, *I have a new dog, eh/*
       b. # ***Surprise***, *I have a new dog, eh/*

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[2] For reasons of space we cannot fully introduce and justify this assumption. It is consistent with standard semantic treatments of yes/no questions in terms of introducing set of alternatives (i.e., the polar opposite; Hamblin (1973), Karttunen (1977), and Groenendijk and Stokhof (1982)). Furthermore, it is consistent with the lexicalization patterns of confirmationals. That is, several languages use as their confirmationals either polar response particles (e.g., Spanish *si, no*) or the disjunctive conjunction (German *oder*).

Moreover, if it is clear from the context that A does not know p, then the use of *eh* is predictably infelicitous, as for example in (17).

(17) A: *You will never get a dog again.*
      B: *# But I have a new dog, eh/*

Thus, with the use of *eh*, both S commitment and the CoA is being modified. Consequently, we may expect this speech act modifier to be complex. And this is indeed what we find. In particular, we propose that the particle itself associates with the layer responsible for encoding S commitment, whereas rising intonation – in this case realized on the particle rather than the whole clause – associates with the layer of structure responsible for encoding CoA. This is illustrated in (18).

(18) *Eh* declaratives
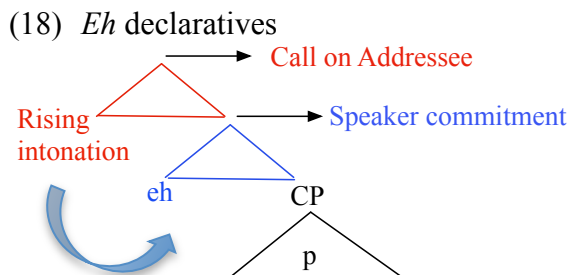
This analysis predicts that both, rising intonation and the particle, can appear independently, and maintain their meaning. We have already seen above, that rising intonation does indeed occur without the particle, namely in the form of a rising declarative. But we also observe that *eh* can be used without rising intonation, namely in the form of the so-called *narrative* use of *eh* (Avis 1972, Johnson 1976). This use of *eh* is illustrated by the bold-face instances of *eh* in (19).

(19) *So I go to this shrink, **eh,** and he goes like I don't have no confidence, **eh**. I go, 'No way, man.' He goes I should take assertiveness training. Weird, eh/ Like I'm always supposed to be seeking approval, **eh**, from, you know, other people? I felt like he could kiss my Royal Canadian, eh/ But, sayin' it wouldabeen too pushy. Dyuh think?*   http://www.billcasselman.com/casselmania/mania_eh.htm

The narrative use of *eh* is often characterized as having level intonation (Avis 1972) and the fact that S does not expect a response from A. While the intonational contour of the conformational *eh* is fully rising (Figure 2), the intonational contour of the narrative *eh* is slightly flatter, but nevertheless somewhat rising (Figure 3).
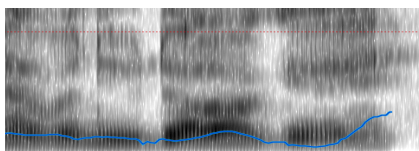

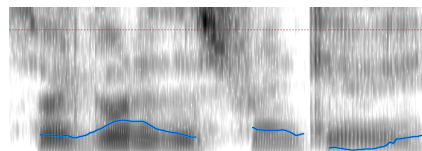Figure 2: confirmational *eh*   Figure 3: narrative *eh*

The difference in rise is reminiscent of the difference between a convex rise (as in Figure 2) and a concave rise (as in Figure 3). In particular, Kaiser and Baumann (2013) observe that a convex rise is interpreted as questioning while a concave rise is interpreted as signaling S's intention to continue.

Note crucially that we can still maintain the contribution of the particle itself as expressing that S believes that A believes *p*. In this case this belief comes about because S just told A that *p,* and has therefore legitimate reason to believe that A believes *p.* Whereas the (convex) rising intonation additionally asks A for confirmation that this is indeed so, the absence of the convex rise indicates that S will still continue to talk.[3]

In sum, we have now seen independent evidence for the decomposition of the speech act modifier *eh* into its lexical contribution (as a modifier of what is being said) and its intonational contour (as a modifier of the CoA). On the one hand, *eh* can occur with convex rising intonation, resulting in a request for confirmation or else with concave rising intonation, resulting in the so called narrative *eh.* The independence of intonation from the particle is further supported by the fact that rising intonation can co-occur with formally declarative clauses to produce biased questions, as discussed in section 4.1.

5.   Cross-linguistic variation in speech act modification

We have seen thus far that both, particles and intonation, and the combination of these two strategies can modify speech acts. That is, a declarative sentence with falling intonation is interpreted as an assertion; a declarative sentence with rising intonation is interpreted as a biased question; a declarative sentence followed by the particle *eh,* which is itself associated with rising intonation, is interpreted as a request for confirmation. The fact that sentence intonation can serve as a speech-act modifier raises the question as to what happens in tonal languages, in which lexical contrast and intonation are competing for the same resource, namely pitch, to convey information. While there is less room for speakers to manipulate pitch for sentence intonation, it seems interesting to explore whether or not similar types of speech act modification can be found in tonal languages and if so, how they are expressed.

5.1   Cantonese

In Cantonese, a Sinitic language with six lexical tones, both S commitment and the CoA are encoded by a single particle as we will now show. Consider first the *"I'm telling you"* context, where S uses a simple unmodified declarative to convey that they believe *p* and that they want A to also believe *p.* Just like in English, the *"I'm telling you"* context is characterized by an unmarked clause, as shown in (20).

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[3] Similar patterns are also found in Spanish (Adriana Osa Gomez, p.c.), and in German dialects (Wiltschko & Heim 2014).

(20) ngo5   san1   joeng5   zo2   zek3   gau2
  1SG   new   keep   ASP   CL   dog
  'I have a new dog.'

Next, consider the *"I don't believe it"* context where English uses a rising declarative. In Cantonese, this sentence is modified by a right-peripheral particle *me1*, as shown in (21).

(21) ngo5   san1   joeng5   zo2   zek3   gau2   **me1**?
  1SG   new   keep   ASP   CL   dog   PRT
  'What, I have a new dog?!'

But there is a crucial difference between rising declaratives in English, and the use of Cantonese *me1*. Recall that rising declaratives are not explicitly encoding that S is committed to believing not *p*. Instead, the *"I don't believe it"* context is just one of the three contexts that is compatible with rising declaratives. Cantonese *me1* differs in this respect in that it explicitly commits S to believing not *p*. Given our analysis, we are led to conclude that the particle *me1* associates with S commitment as well as the CoA, as in (22).

(22) *me1* questions in Cantonese
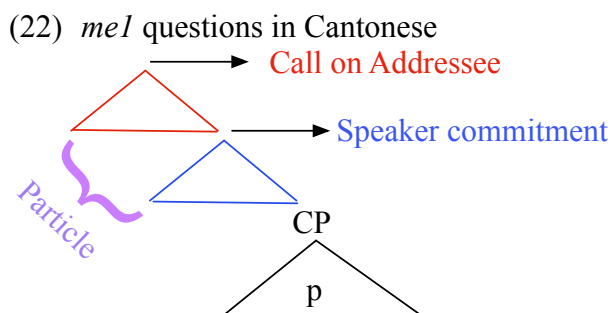
Finally, consider the *"Confirm that you know"* context, where English uses a particle in combination with sentence intonation (realized on the particle rather than the clause; see (18) above). In this context, Cantonese uses a single particle, namely *ho2*, as shown in (23).

(23) nei5   san1   joeng5   zo2   zek3   gau2   **ho2**?
  2SG   new   keep   ASP   CL   dog   PRT
  'You have a new dog eh?'

Just like English *eh,* Cantonese *ho2* modifies what is being said <u>and</u> the CoA. In particular, with the use of *ho2,* S expresses her assumption about A's belief towards the belief of p, and calls on A to confirm whether this assumption is true. Given the analysis we have developed thus far, we are led to conclude that the Cantonese particle *ho2*, just like *me1,* spans across two syntactic heads.

We have now seen that in a tone language, where intonation is not as readily available to modify speech acts, particles can fulfill the same function. Note that this is not really surprising, in light of the assumption that sentence intonation associates with the syntactic tree like any other morpheme. While in Cantonese one particle associates with both positions, we predict that we may also find a language where two separate particles encode S commitment and CoA. This is what we find in Medumba.

5.2   Medumba

Medumba is a Grassfields' Bamileke Bantu language with lexical tone. To modify speech acts, this language uses particles. In particular, Medumba has particles that modify S commitment (what is being said) as well as particles that modify the CoA (what S wants A to do). Consider first the "*I'm telling you*" context in (24).

(24) *mʉ   ɣʉ   ɓʉ   swə.*
     1SG   have   dog   new
     'I have a new dog.'

Just as in English, assertions in Medumba are formed by unmarked declaratives. That is, no particles are used in this context. This contrasts with the other two contexts under investigation. First consider the "*I don't believe it*" context, where English uses rising declaratives. In Medumba, this change in speech act is encoded by means of two separate but homophonous sentence-final particles, as shown in (25).

(25) *mʉ   ɣʉ   ɓʉ   swə   **a   a**?*
     1SG   have   dog   new   PART   Q
     'I have a new dog?'

As indicated by the glosses, we hypothesize that the first occurrence of *a* encodes that S commits to the belief *not p*, while the second occurrence of *a* changes the CoA to request a response.[4] Thus, the sentence in (25), is a biased yes/no question where S is committed to believing *not p*.

     Finally, consider the third context of investigation, namely the "*Confirm that you know*" context. In this context, S expresses that she believes *p* and simultaneously requests A to confirm this belief. S's attitude towards *p* is expressed by the particle *kʉla* whereas the CoA is expressed by the particle *a*.

(26) ***kʉla**   u   ɣʉ   ɓʉ   swə   **a**?*
     PART   2SG   have   dog   new   Q
     'You have a new dog, eh?'

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[4] Our reason to believe that there are in fact two particles, which sound the same (*a*) as opposed to one particle (i.e., a long vowel *a*) is as follows. First, vowel length is not contrastive in Medumba. Second, other instances of long vowels in Medumba are realized with rising tone (ǎ), whereas the particle combination in (25) is phonetically realized as a long vowel bearing mid tone (ā).

Thus, according to our analysis, Medumba is a language where both the layer of structure dedicated to encoding the CoA as well as the layer of structure dedicated to encoding S commitment are associated with a particle, as in (27).

(27) Medumba {**kʉla __ a/__a a** questions}[5]
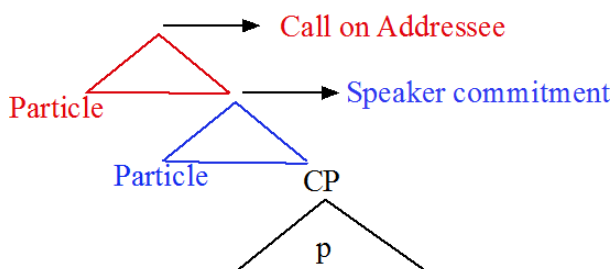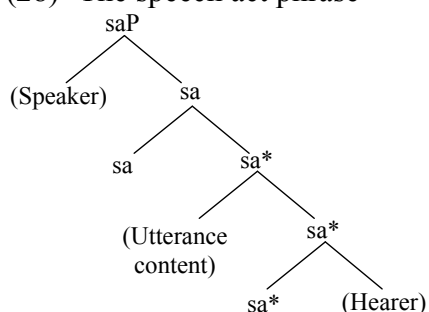

6.   Conclusion

In this paper, we have explored the ways speech acts can be modified by means of sentence intonation and particles. We saw that speech acts can be modified in two distinct ways: first, the content of S commitment can be modified and as a result what is being said differs from a typical declarative. In particular, we saw two ways in which the content can be changed: either S can commit to **not** believing *p*, or else, S can commit to a proposition different form *p*, namely the proposition that A believes *p*. Second, the nature of the CoA can be modified resulting in differences concerning what S expects of A. For example in an unmarked declarative, S wants A to believe *p*. This contrasts with sentences where S wants A to respond with her assessment of the truth of *p*. Our analysis is couched within a syntactic framework which takes the syntactic spine to be intrinsically associated with universal functions (Wiltschko 2014). The highest layer of the spine is responsible for encoding discourse-sensitive notions such as S commitment and CoA. This assumption is in line several proposals which aim to syntacticize discourse (Speas and Tenny 2003, Haegeman and Hill 2013). These recent analyses can be viewed as a revival of Ross' 1970 performative hypothesis according to which every matrix clause is in fact embedded in another clause, which encodes the speech act. Thus, a typical assertion would actually be embedded in a higher matrix clause which can roughly be paraphrased as 'I'm telling you that …'. In the course of the derivation, this matrix clause is deleted. Ross' 1970 analysis was dismissed on several grounds (Anderson 1971, among many others). The recent reincarnations of the performative hypothesis no longer treat the embedding structure as a regular clause; instead, the embedding structure consists of functional categories only. For example, in Speas and Tenny's 2003 version of the speech act phrase it is considered to be a ditransitive predicate which can roughly be paraphrased as *S gives p to A,* as schematized in (28).

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[5] The question remains as to how to derive the linear ordering of sentence final particles. In particular, why do some particles appear sentence-initially while others appear sentence finally, even within the same language. An analysis of this pattern has to await future research.

(28) The speech act phrase

```
                saP
              /     \
       (Speaker)     sa
                   /    \
                 sa      sa*
                        /   \
               (Utterance    sa*
                content)    /   \
                        sa*     (Hearer)
                       /   \
                    sa*    (Hearer)
```

Speas and Tenny (2003:320)

We have furthermore assumed that the A-oriented layer of structure is higher than the S-oriented one (cf. Lam 2014). This contrasts with previous versions of the speech act phrase where S is generated higher than A (as in (28)). Important evidence for the ordering we propose comes from the fact that the modification of S commitment must occur *before* the modification of CoA. This is evidenced by the fact that in the presence of the particle *eh* rising intonation must associate with this particle and cannot associate with the sentence as a whole. This follows if *eh* attaches before rising intonation and thus rising intonation has to be realized on the next available phonological string. If rising intonation were attached before *eh,* then we would expect that it be realized on the sentence with subsequent addition of the particle.

Furthermore, the classic assumption that S must be higher than A is grounded in the assumption that, for example, that the speech act of assertion can be paraphrased as *S gives p to A.* However, as we have seen, speech acts are more complex than that. While there are contexts where this is indeed the case (i.e., the *"I'm telling you"* context), there are other contexts where this is not so. Instead, these contexts are characterized by the fact that S puts p out for A to consider and wants A to respond, to see whether p should indeed be adopted in the set of beliefs. This process is sometimes referred to as tabelling (Malamoud and Stephenson 2014). Thus, only if A accepts *p,* will *p* enter the common ground (Stalknaker 2002). This is compatible with the structural configuration in which S is lower than A: first S says something and then she gets A to respond to what is being said.

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