Illocutionary mirativity: the case of Yucatec Maya *bakáan**

Scott AnderBois

Brown University

1.   Introduction

Since DeLancey (1997) first brought the term to popular use, the nature of mirativity, its grammatical encoding, and very existence have been much debated. There are at least two main reasons for these ongoing controversies. First, many mirative markers – including the most well-studied ones to date – also have other non-mirative uses, most notably as indirect evidentials. This has led to the sense that mirativity is merely a usage that elements of other grammatical categories may have rather than a distinct grammatical category. Second, different authors have described mirative markers across languages as encoding a family of distinct meanings. For example, Aikhenvald (2012)'s survey article lists the following 5 different conceptions of mirativity: **(a)** 'new information', **(b)** 'sudden discovery, revelation, or realization', **(c)** 'surprise', **(d)** 'counterexpectation', and **(e)** 'unprepared mind'.

What remains unclear from previous literature is to what extent there is truly cross-linguistic variation in the semantics of mirativity rather than differences in analysis. While these different conceptions of mirativity are clearly related, they are nonetheless in principle distinguishable from one another. One goal of research into mirativity, therefore, ought to be to explore the extent to which there is cross-linguistic variation between these notions, and if so, in what ways this is related to other properties of these elements and/or these languages such as their syntax, embeddability, and interactions with different sentence types.

In this paper, we take a first step towards these goals by examining in detail a mirative marker which is undiscussed in previous literature on mirativity (and only briefly discussed in descriptive literature): Yucatec Maya (YM) *bakáan*, as in (1).[1] As the con-

[1]The following abbreviations used for example glosses: ASSUR: assurative, CL: numeral classifier, DEF: definite article, IMP: imperfective aspect, IMPER: imperative, MIR: mirative, NECESS: necessitative, NEG:

text and translation in (1) suggest, *bakáan* fits squarely under the umbrella of mirativity, typically occurring in utterances consistent with all of the mirative conceptions above.

(1)   **Context:** We are inside the library. I suddenly look out the window and notice it is raining, which it hadn't been before, and say:
Táan **bakáan** u   k'áaxal ja'
PROG MIR   A3 fall   water
'Oh, it's raining.'

Empirically, this paper defends three central claims about YM *bakáan*:

Claim I: *bakáan* has a consistently mirative meaning, with no indirect evidential or other non-mirative uses.

Claim II: *bakáan* conventionally encodes a sudden revelation or realization of the speaker, rather than surprise, counterexpectation, or new information[2].

Claim III: *bakáan* at least sometimes occur 'outside the speech act' (including in imperatives and interrogatives), similar to what has been described for 'illocutionary evidentials' (e.g. Faller (2006), Murray (2010))

Beyond describing *bakáan* and situating it with the typology of possible miratives, we propose a formal analysis of the contribution of *bakáan* in declaratives within a 'scoreboard' semantics for assertion. Concretely, we draw on a series of recent work which has argued based on a variety of different data across languages for a theory on which declarative sentences conventionally encode updates of two components of the discourse scoreboard. First, following Farkas & Bruce (2010), Murray (2014), Malamud & Stephenson (2015), and AnderBois et al. (2015) (and ultimately, Stalnaker (1978)) declarative sentences encode a proposal to update the speaker and hearer's shared body of presumed information, the Common Ground (CG). Second, following Gunlogson (2001), Davis (2009), Northrup (2014), AnderBois (2014) (and ultimately, Hamblin (1971)), declarative sentences also encode an update of the speaker's individually anchored public discourse commitments, DC_{spkr}. Under this theory of declarative updates, then, we argue that *bakáan* encodes that the speaker has had a sudden revelation about one or both of these two updates.

The outline of the paper is as follows: **§2** gives a brief background on the morphosyntax of YM generally and *bakáan* specifically; **§3** argues (contra Hanks (1984)) that *bakáan*

---

negation, NEG.CL: negative/extrafocal clitic, OBLIG: obligatative, PFV: perfective aspect, PASS: passive, PL: plural, PREP: preposition, PRES: presentative, PROG: progressive aspect, PROX: proximal deixis, REL: relational noun suffix, SUBJ: subjunctive mood, TERM: terminative aspect, TOP: topic marker, For agreement morphology, I follow the terminological tradition among Mayanists, referring to Set A (≈ Ergative/Nominative) and Set B (≈ Absolutive/Accusative) markers, e.g. A3 = 3rd person Ergative/Nominative. B3 is phonologically null and therefore left unglossed. All examples are elicited unless otherwise noted. The orthography used is that codified in Briceño Chel & Can Tec (2014), with the exception that we make use of the question mark.

[2]I set aside notion (e), 'unprepared mind', in the present paper, as it is not clear from previous literature exactly what this notion refers to and in particular how to distinguish it from the other four analyses.

has only mirative uses; **§4** fleshes out distinct notions of mirativity, arguing that, of these, *bakáan* encodes revelation; **§5** shows that *bakáan* has illocutionary-level uses across sentence types; **§6** presents a formal analysis of *bakáan* in declaratives as an illocutionary modifier; **§7** concludes.

2.   Background on Yucatec Maya

Yucatec Maya (YM) is one of 30 languages in the Mayan family, spoken by ≈759,000 people (2005 census) across the Mexican states of Campeche, Quintana Roo, and Yucatán. Despite the relative large number of speakers, only 5.3% are reported to be monolinguals according to census data (INEGI (2009)), and fewer children speak the language than adults. The elicited data reported on here were collected from bilingual college students at the Universidad de Oriente (UnO) in Valladolid, Yucatán and are supplemented where possible with naturally occuring examples from various genres[3].

Turning to the grammar of the language, YM behaves syntactically as a head-marking verb-initial language (VOS), with actual word order driven primarily by discourse factors. In particular, as in other Mayan languages, there are extremely productive preverbal topic and focus constructions, occurring in that order. Topics constitute distinct intonational phrases from the rest of the sentence and are marked morphologically with the intonational phrase-final clitic *-e'* TOP and typically followed by a large pause (Avelino (2009), Verhoeven & Skopeteas (2015)). Foci occur following topics but preceding the verb and form a single intonational phrase together with all other non-topic material.

Bakáan is part of a small class of elements in YM which typically occur in second position within the intonational phrase, (2a). While this position is most frequent, positions further to the right, as in (2b), are also generally judged acceptable, but occur less frequently in texts.[4]

(2)   a.   K-u   jantik **bakáan** puut   le   áak-o'
              IMP-A3 eat   MIR   papaya DEF turtle-DISTAL
              'Oh, the turtle is eating papaya!'

---

[3]One genre of particular note are religious revelations. Here, *bakáan* plays a ritual role, often occurring in nearly every clause. We leave this use to future work while noting the similarities between religious and everyday revelation.

[4]Consultants also sometimes accepted *bakáan* in topic position, as in (i), with no apparent interpretive difference. Such examples, however, were sometimes rejected by consultants as well. Moreover, they are exceedingly rare in naturally occurring speech and were not offered by consultants in translation tasks and open-ended question-answer tasks. As such, we set aside such cases, leaving it to future work to determine their status.

(i)   **Bakáan**-e' jats'uts a   naj-il
           MIR-TOP   good   A2 house-REL
           'Oh, your house is nice!'

b. K-u   jantik puut   le   áak   **bakáan**-o'
    IMP-A3 eat   papaya DEF turtle MIR-DISTAL
    'Oh, the turtle is eating papaya!'

Similar to other clitics with this preferred second position distribution, such as the polar question clitic *wáaj* (e.g. AnderBois (2009), Verhoeven & Skopeteas (2015)) and reportative *bin* REP, there is no apparent interpretive difference related to the linear position.

3.   *Bakáan* is uniformly mirative

The particle *bakáan* has been scarcely discussed in previous literature on YM, having been glossed simply as PARTICLE or COUNTEREXPECTATIVE or with lexical labels like *gee*, *well*, etc. The most detailed claim regarding the meaning of *bakáan* comes from Hanks (1984), a paper whose main subject is not *bakáan*, but rather the comparison between two other constructions, both involving the morpheme *je'(el)* plus a clause-final clitic. Beyond differing in which clitic they involve, the two constructions differ syntactically as well, with *je'(el)* occuring with an aspectless clause in (3a), but a fully finite clause including aspect (here, imperfective *k-* IMP) in (3b).

(3) a. **Modal *je'* plus TOPIC *-e'***
         Je'   **bakáan** u   taal-e'
         ASSUR MIR   A3 come-TOP
         'He'll apparently come, so it seems.'   Hanks (1984)
     b. **Presentative *je'* plus DISTAL *-o'***
         Je'   **bakáan** k-u   taal-o'
         PRES MIR   IMP-A3 come-DISTAL
         'Here he comes (I didn't think he'd make it).'   Hanks (1984)

The use of *bakáan* is grammatical in both constructions and Hanks make the following claim about its meaning in the two constructions based on the examples in (3): "Depending on [linguistic] context, *bakáan* may index either: (i) the speaker feels there is reason to believe X, but is unwilling to vouch for it himself; or (ii) X is verifiably true, but the speaker had not expected it and so is mildly surprised." According to Hanks (1984)'s brief description, then, *bakáan* has both indirect evidential and mirative uses.

Given the cross-linguistic connection between indirect evidentiality and mirativity noted in the introduction, such a pattern is eminently plausible. Considering a wider range of examples, however, it becomes clear that only the mirative usage is associated with *bakáan*. Speakers reject the use of *bakáan* in scenarios with indirect evidence, but nothing supporting a mirative interpretation, as in (4).

(4)   **Context:** We are looking at the wet ground, but can't see the rain itself.

> #Be'ora'-e' táan **bakáan** u k'áaxal ja'
> now-TOP PROG MIR A3 fall water
> Intended: 'It appears that it's raining now.'

Beyond this, there is a clear alternative explanation for the apparent indirectness in (3a) that motivated Hanks (1984)'s claim: the modal semantics of the combination of *je'(el)* with *-e'*. In addition to Hanks (1984)'s own claims about the modal nature of *je'el ... -e'*, Bohnemeyer (2002) claims that *je'el ... -e'* contributes deontic and/or epistemic modality and locates the described eventuality after the topic time, as in (5). Given the well-known similarities between indirect evidentiality and epistemic modality (see, e.g. recent literature on English *must*), this suffices to explain the apparent indirectness of (3a), whether or not one takes this indirectness to be semantically encoded as such.

(5) Je' u yan-tal k naj-il uts-e'
     ASSUR A3 exist-become A1pl house-REL good-TOP
     'We will have a decent house!'   (Bohnemeyer 2002, p.313)

In this section, we have argued that *bakáan* has only mirative uses – **Claim I** from the introduction – and suggested an alternative explanation for Hanks (1984)'s putative counterexample to this claim. We turn now to **Claim II**, namely that *bakáan* encodes revelation or sudden realization, rather than other mirative meanings discussed in previous literature.

4.   *Bakáan* encodes 'revelation', not surprise

As in the case of other miratives cross-linguistically, *bakáan* typically conveys that the speaker has suddenly found out information that is new, surprising, and unexpected.

(6) **Context:** We are inside the library. I suddenly look out the window and notice it is raining, which it hadn't been before, and say:
     Táan **bakáan** u k'áaxal ja'
     PROG MIR A3 fall water
     'Oh, it's raining.'

(7) **Context:** The speaker, Ricky, sees a light on in his son Jacob's room at night and assumes that he is just playing a video game. He walks in and says the following:
     ¡Táan **bakáan** u xokik le biblia-o'!
     PROG MIR A3 read DEF bible-DISTAL
     'Oh, he's reading the bible.'   Web example[5]

(8) **Context:** The speaker is approaching shadowy figures in the distance and as they apporach realizes that the figures are her parents:

---

[5] https://www.jw.org/yua/j%C3%B3o%CA%BCsa%CA%BCanilo%CA%BCob/revista%CA%BCob/w20150115/yeetel-kiimak-oolal-binoob-aantaj-nueva-york/

...leti'	**bakáan**	in	yuum-o'ob	k-u	náats'al-o'ob-e'
they	MIR	A1 parent-PL	IMP-A3 close-PL-TOP		

'Oh, it's my parents that are approaching.' Literary Example[6]

While examples meeting many different conceptions of mirativity are typical, such examples leave open the question of what part of this description is semantic (i.e. conventionally encoded) vs. arising pragmatically in context or being due to other elements, such as intonation.

4.1 Relations between conceptions of mirativity

As noted in the introduction, previous literature has given several distinct but related characterizations of mirative semantics (e.g. Aikhenvald (2012)):

(9) 4 conceptions of mirativity:
     a. 'new information'
     b. 'sudden discovery, revelation, or realization'
     c. 'surprise'
     d. 'counterexpectation'

While many or all of these conceptions are distinct in principle, some of these notions are intrinsically related to one another, as has been discussed some in previous literature. For example, Peterson (t.a.) suggests that sudden revelation, b, is a necessary component of surprise, c. Relatedly, Rett & Murray (2013) assert that new information, a, is a necessary component of surprise, c. Similarly, psychologists (e.g. Huron (2006)) have characterized surprise, c, as a biological/primary emotional response to experiencing certain kinds of expectation violation, d.

While we endorse the above conclusions here, there is an important caveat to understanding how they hold: they depend on the indexical nature of miratives. In the terminology of Faller (2002), miratives are *m-performative* – they express the mental evaluation of a particular individual (the speaker) at a particular moment in time (the time of the utterance). The relationships between various notions of mirativity just listed, then, hold only when these indexical elements are resolved in the same way. Sudden revelation by a speaker S at a time t is necessary for S to be surprised at time t (or perhaps in the moments immediately following). In contrast, there is of course also an intersubjective use of the English word surprise (e.g. 'It is surprising that p.') which does not share these indexical or m-performative properties and for which these relations do not hold.

While these indexical or m-performative properties are largely implicit in the discussions of the aforementioned authors, whether or not they hold is, of course, an empirical question. For YM *bakáan*, this characterization is supported by contrasts like that in (10). In (10a), the information in the *bakáan* marked sentence is objectively surprising given general presumptions about turtles, but is not surprising or new for the speaker. The utter-

---

[6]*U yóok'otilo'ob áak'ab*, p. 60-61

ance is therefore judged infelicitous since the speaker is not experiencing any of the various mirative states at the moment of the utterance. In contrast, when the turtle is new to speaker in (10b), the same sentence can be uttered felicitously.

(10) Áak-o'ob-e' su'uk k-u jantik-o'ob, chen ba'ale' le áak-a' puut
turtle-PL-TOP grass IMP-A3 eat-B3.PL just but DEF turtle-PROX papaya
bakáan k-u jantik.
MIR IMP-A3 eat
Turtles eat grass, but this one apparently eats papaya!'

    a. ✗**Context:** Turtles normally eat grass, but I have a pet turtle who for some reason always eats papaya instead of grass.

    b. ✓**Context:** Turtles normally eat grass, but we see a turtle who for some reason is eating papaya instead of grass.

On the basis of such contrasts, we conclude that *bakáan* is m-performative and therefore indexically anchored in the immediate speech context.

4.2 *Bakáan* as a marker of revelation

In light of the notional dependencies discussed in the prior section, these different conceptions of mirativity are often co-extensive and, as we have seen in (6)-(8), many examples are consistent with all of them. However, even taking the above dependencies as given, these different mirative notions nonetheless can be distinguished empirically. In particular, what is needed, we claim, are felicity/acceptability judgments of sentence-context pairs consistent with a proper subset of the above definitions. As we have seen, not all logically possible permutations are possible; for example, contexts involving surprise of the relevant kind but no new information arguably cannot exist. However, there are two fairly clear cases where these can be teased apart, which we do in the remainder of this subsection.

4.2.1 Speaker's prior expectation is suddenly met

The first kind of scenario for which felicity judgments of utterances with miratives make clear distinctions are scenarios in which the speaker has a prior expectation which is suddenly met. As summarized in (11), then, we expect that a mirative encoding new information or revelation will be judged felicitous in such a scenario, whereas a mirative which encodes surprise or counterexpectation should not be.

(11) *Felicity in scenarios where speaker's prior expectation is suddenly met*

	Type	Felicitous?
a	New Information	✓
b	Revelation	✓
c	Surprise	✗
d	Counterexpectation	✗

As seen in (12)-(14), *bakáan* is felicitous in scenarios of this sort and therefore cannot encode notions (c) or (d). In (12), the context establishes explicitly that the speaker's prior expectations are met. In (13), the speaker is not surprised that she needs to eat since eating is a normal solution to having a stomachache. Finally, in (14), the speaker is not taken to be insulting the addressee as would presumably be the case if the sentence conveyed that the speaker's expectation had been violated. Rather, the sentence conveys that the addressee's intelligence is now suddenly on the speaker's mind in the wake of their comment.

(12)   **Context:** I am supposed to meet my friend Juan, who is very punctual, at the library at 3pm. It is almost exactly 3pm and I suddenly see him walking up to the meeting spot and I say:

Juan-e'   j-k'uch   **bakáan**.
Juan-TOP PFV-arrive MIR

'Oh, Juan's here (lit. Juan arrived).'

(13)   **Context:** I have a stomachache and say:

K'ana'an **bakáan** in janal, wáa ma'-e'   yan   in k'oja'antal
NECESS MIR   A1 eat   if   NEG-TOP OBLIG A1 become.sick

'Oh, I need to eat. If I don't, I'll get sick.'

(14)   **Context:** I had no prior belief that you were anything but smart when you make a really insightful comment. I say:

(Jach) yaan **bakáan** a   na'at.
very   exist MIR   A2 understanding

'Oh, you're (really) smart!'

4.2.2   Speaker forgets and suddenly remembers

The second type of context-relative felicity judgment distinguishing the various mirative notions are scenarios where the speaker had forgotten some piece of information or otherwise did not have it mind and then suddenly remembers it. Since the scenario is one where the information was already known, felicity in such a scenario plainly rules out 'new information'. Given the presumed relationship between new information and surprise, felicity in such cases provides further evidence against surprise and counterexpectation accounts.

(15)   *Felicity in scenarios where speaker forgot and suddenly remembers*

	Type	Felicitous?
a	New Information	✗
b	Revelation	✓
c	Surprise	✗
d	Counterexpectation	✗

As seen in (16)-(18), YM *bakáan* is felicitous in such scenarios, and I therefore conclude that it encodes sudden revelation or realization, rather than the other notions discussed by Aikhenvald (2012). In (16), the speaker momentarily forgets what he did yesterday, but quickly remembers and utters the sentence with *bakáan*. In (17), the speaker has forgotten that Juan got married or perhaps has forgotten to mention this (see §5.2 for further discussion of the latter observation). Factors that make forgetting seem more likely enhance felicity (e.g. time passing, speaker being drunk, old), though speakers generally accept these examples without such additional context being made explicit.

(16)   **Context:** I hunted yesterday, but forgot for a second. I suddenly remember and say:
        T-in   ts'oon **bakáan** jun túul   kej.
        PFV-A1 hunt   MIR   one CL.ANIM deer
        'Oh yeah, I hunted a deer yesterday.'

(17)   **Context:** I heard a week ago that our mutual acquaintance Juan got married. I realize during our conversation I didn't yet tell you the news and say:
        Juan-e'   ts'o'ok **bakáan** u   beel.
        Juan-TOP finish   MIR   A3 path
        'Oh yeah I forgot to tell you, Juan got married (lit. Juan's path finished).'

(18)   **Context:** I forgot that my friend María had gone to the cafeteria.
        Jo'oljeak-e'   k'uch   **bakáan** Maruch cafeteria.
        yesterday-TOP arrive.PFV MIR   María   cafeteria
        'Oh (yeah), yesterday, María went to the cafeteria.'

Combining the data from these two types of contexts, we therefore conclude that *bakáan* encodes sudden revelation or realization on the part of the speaker. Its use is therefore consistent with the speaker experiencing new information, surprise, and counterexpectation, but it doesn't require it. Context together with other elements in the sentence – prosody especially – may help convey these more specific senses (similar to the conclusions of Salanova & Carol (2016)), but *bakáan* itself merely encodes sudden revelation.

5.   *Bakáan* 'outside the speech act'

Thus far, we have considered examples of *bakáan* in declarative sentences encoding a sudden realization or revelation on the part of the speaker about the truth of propositional content of the rest of the sentence. However, we have also noted in passing that there are some cases, such as (17), where the speaker does have a sudden revelation, but this revelation does not seem to concern the evidence for the claim, but rather the speech act itself. In this section, we build on this to argue that *bakáan* has a set of illocutionary uses analogous to those that have been discussed in the literature on evidentials. In §6, we will develop an analysis that unifies these uses and those considered above.

5.1 Evidentials 'outside' the speech act

For some evidentials, one prominent analysis has held that they are illocutionary opera-
tors modifying the speech act updates contributed by sentences (e.g. Faller (2002), Murray
(2014)). As Murray (2014) has stressed for evidentials, such analyses are best thought of
not as modifying actual speech acts per se, but rather the 'illocutionary updates' conven-
tionally encoded by sentences. While this hypothesis is taken to hold across a range of
evidentials in various sentence types, the clearest evidence for it has come from reportative
evidentials in non-declarative sentences. As the following examples from the YM reporta-
tive *bin* illustrate, reportatives in some languages can occur in these sentence types, serving
to portray the speech act itself as having a third-party, reportative source:

(19)   a. **Context:** My friend wanted me to ask you how the concert was:
Bix **bin** teech te   koonsiyeerto-o'?
how REP you   there concert-DISTAL
'How was the concert (she asks)?'   **REP w/ interrogative**
   b. **Context:** Our mother is in another room and she has told me to have my
brother eat his bread. I say:
Jaant   **bin** le   waaj-o'
eat.IMPER REP DEF tortilla-DISTAL
'Eat the bread (Mom orders).'   **REP w/ imperative**

5.2 *Bakáan* outside non-declaratives

For miratives, the question of whether analogous cases exist is to my knowledge unex-
plored. One possible reason for this is because the most well-studied miratives have non-
mirative evidential uses. Given this, we must know not only that the element can be used
in such sentences, but how to distinguish it from non-mirative uses in these environments.
This is of course possible to do, though to my knowledge has not been discussed in previ-
ous literature.[7] Since YM *bakáan* has only mirative uses, these complications do not arise
and we find that *bakáan* is possible in imperatives and interrogatives as shown in (20)-(21).

(20) **Context:** A mother is in the kitchen cooking and remembers that there are no
beans in the house because she forgot to tell her son to go buy some and says:
Xeen **bakáan** a maan   bu'ul te' tiiyeenda-o'.
go.IMP MIR   A2 buy.SUBJ beans there store-DISTAL
'Oh (I meant to tell you), go buy some beans.'

---

[7]One partial exception is Rett & Murray (2013), who note that the narrative evidential in Cheyenne has
mirative uses in declaratives, but not in interrogatives. However, they also report that the narrative evidential
(as well as the reportative in Cheyenne) does not have 'outside the speech act' uses of the sort discussed here
with interrogatives in the first place. The arguably illocutionary 'evidential flip' uses are possible with both
but only on reportative uses rather than mirative ones.

(21)   **Context:** You told me something earlier about work, but I got distracted and forgot.
        Ba'ax t-a   wa'alaj **bakáan**?
        what   PFV-A2 say   MIR
        'Oh (wait), what did you say?'

These data hopefully serve to make clear the parallel between what I claim to be illocutionary uses of miratives and analogous uses of reportatives discussed in recent literature on evidentials. However, I leave the detailed analysis of non-declarative examples to future work, focusing for the remainder of the paper on analogous declaratives.

5.3   *Bakáan* outside the update in declaratives

To identify cases where miratives behave as illocutionary modifiers in declaratives, it is necessary to understand what kind of update declarative sentences encode in the first place. We undertake this work in earnest in §6. For now, however, we can observe that there are not infrequent uses of *bakáan* declarative sentences where the context does not give any reason to believe that the speaker has had a sudden revelation regarding the propositional content of the sentence nor of the evidence supporting this claim. Rather, it seems that the speaker in these cases has a sudden realization that they should assert in the conversation at that moment a proposition whose truth was certain all along. For example, in (22) we see that the declarative with *bakáan* is possible not only in a context where the speaker suddenly realizes that the sentence is true – (22a), repeated from (18) – but also in the context in (22b) where this possibility is explicitly ruled out. Further examples of the latter sort are given in (23)-(24).[8]

(22)   Jo'oljeak-e'   k'uch   **bakáan** Maruch cafeteria.
        yesterday-TOP arrive.PFV MIR   María   cafeteria
        'Oh (yeah), yesterday, María went to the cafeteria.'

    a.   **Context A:** I forgot that my friend Maruch had gone to the cafeteria.
    b.   **Context B:** I forgot that I had wanted to tell you that Maruch had gone to the cafeteria, but had not forgotten that she had.

(23)   **Context:** We are talking about birds and I suddenly remember that I have a question about birds which I wanted to ask:
        Yaan ten jun p'éel k'áatchi' **bakáan**.
        exists me one CL   question MIR
        'Oh yeah, I have a question.'

---

[8]The example in (24) (possibly along with other literary examples including (7)) is a bit tricky since the story teller may well know at what point in the story they will spring this surprise on the listener. In such cases, it would seem that the speakers pretense that they have just remembered or discovered this fact is intended to make more vivid for the listener the original discovery by a character within the universe of the story.

(24)   **Context:** The last line in a story about a teacher's dream about showing up to class and there not being any students there. The last line reveals that the story was all a dream:

Chéen **bakáan** t-u   náay.
just   MIR   PREP-A3 dream

'Oh, it was just a dream.'   Web Example[9]

To summarize, we have argued in this section that *bakáan* has uses which plainly occur at the illocutionary level, conveying the speaker's sudden revelation about the speech act itself. While the analysis below focuses on data from declaratives, we have supported this claim with data from declaratives, imperatives, and interrogatives.

6.   *Bakáan* as an update modifier

Thus far we have seen two kinds of uses that mirative *bakáan* has in declaratives: **(i)**: uses where the speaker's revelation concerns the truth of the proposition denoted (or more precisely their belief in its truth), and **(ii)** uses where the speaker's revelation concerns the speech act of asserting that proposition at a given conversation. In this section, we draw on two strands of recent work on the nature of declarative updates to argue that both of these uses are best thought of as modifiying the assertive update encoded by declarative mood. Beyond the analysis of *bakáan* itself, then, this approach provides confirmation for a theory of declarative updates which posits two related but distinct components: one updating the individual beliefs/discourse commitments of the speaker and one proposing to update the conversational participants' shared Common Ground.

Literature on the speech act of assertion has considered various kinds of accounts (see MacFarlane (2011) for a very helpful survey). Among linguists, Stalnaker (1978)'s idea has been the most influential: that assertions are proposals to update the Common Ground (CG) of the conversational participants. A variety of recent authors working on disparate phenomena have argued that this discourse move is conventionally encoded by declarative sentences (e.g. Farkas & Bruce (2010), Murray (2014), Malamud & Stephenson (2015)). Building on this, a number of authors have further claimed that such proposals are intrinsically connected with the QUD/Table (e.g. Farkas & Bruce (2010)).

At the same time, another strand of work has argued that declarative sentences conventionally encode an update of a somewhat different sort: an update to the speaker's public discourse commitments, DC_x (e.g. Gunlogson (2001), Davis (2009)). Building on this, several recent authors have argued that this update is tied to the strength and/or type of evidence underlying the speaker's commitment (e.g. Northrup (2014), AnderBois (2014)).

While these theories are often cast as competitors to one another, there is no a priori reason to believe that declarative sentences should not encode a complex update comprising both of these components. While these two will pattern together in basic cases, many of the works cited above argue for a variety of different elements as taking one or the other of these components as an argument and modifying it, making a not-at-issue com-

---

[9]http://en.calameo.com/read/00080548746cec699246c

ment, making anaphoric reference to it, etc. In some of my own prior work (AnderBois (2014), AnderBois (2016)), I have argued that certain evidential and other parenthetical constructions require both components. Taking these two parts together, then, we arrive at the following conventional effects for a declarative update:

(25) **Effects of a declarative update U with propositional content p:**
  a. Proposal to add p to the $CG_{\{Spkr,Addr\}}$ (i.e. putting p on the Table)
  b. Adding p to DC_{Spkr}

Returning to YM *bakáan*, then, I claim that the two uses we have seen for YM *bakáan* in declaratives convey the speaker's revelation about these two components of the declarative update. In 'illocutionary' cases like (26), the speaker's revelation is about (25a). The speaker conveys that given the current state of the conversation, she has had a sudden revelation that proposing to add p to the CG would be appropriate. In 'fact of the matter' cases like (27), however, the speaker's revelation is about their own commitment to the truth of the proposition in question, (25b).

(26) **Context:** I forgot that I had wanted to tell you that Maruch had gone to the cafeteria, but had not forgotten that she had.
  Jo'oljeak-e' k'uch **bakáan** Maruch cafeteria.
  yesterday-TOP arrive.PFV MIR María cafeteria
  'Oh (yeah), yesterday, María went to the cafeteria.'   **'Illocutionary'**

(27) **Context:** We are inside the library. I suddenly look out the window and notice it is raining, which it hadn't been before, and say:
  Táan **bakáan** u k'áaxal ja'
  PROG MIR A3 fall water
  'Oh, it's raining.'   **'Fact of the matter'**

To summarize, in addition to performing a speech act using the update U associated with the rest of the sentence, a speaker who utters *bakáan(U)* conveys a sudden revelation regarding this update. Under a 'dual update' theory of declarative updates, the two uses here can be seen as sudden realizations about these two different component updates. While we leave detailed analysis of other sentence types to future work, the approach should be extendable to these given an appropriate theory of the kinds of updates these contribute.

7.   Conclusions

In this paper, I have argued for three core claims about YM mirative particle *bakáan*:

Claim I: has a consistently mirative meaning, and in particular lacks indirect evidential uses.

Claim II: conventionally encodes a sudden revelation or realization of the speaker, rather than surprise or counterexpectation.

Claim III: can occur 'outside the speech act' including outside of declaratives, indicating that the speaker has had a sudden revelation about the illocutionary update the sentence encodes.

I have proposed an account of *bakáan* in declaratives on which it uniformly conveys the speaker's sudden realization or revelation about the update the rest of the sentence encodes. Together with an independently motivated 'dual update' theory of declarative updates, then, we have argued that this simple semantics captures the range of uses we find. At the same time, then, the range of uses we find for *bakáan* in declaratives provides a new kind of support for such a theory.

Looking more broadly at the typology of miratives, then, this paper has contributed in two ways to the investigation of mirativity. First, we have shown that many of the existing conceptions of mirative semantics can be distinguished empirically using context-relative felicity judgments. While Yucatec Maya *bakáan* has been shown on this basis to encode sudden revelation, applying these diagnostics to other miratives in other languages will clarify the extent to which the diversity of mirative notions found in prior literature reflects true cross-linguistic variation. Second, we have argued that the thing of which this sudden revelation is predicated is not the sentence's proposition content as claimed or assumed for other languages, but rather its conventionally encoded illocutionary update, an additional potential parameter of cross-linguistic variation among miratives.

Scott AnderBois
scott_anderbois@Brown.edu

References

Aikhenvald, Alexandra. 2012. The essence of mirativity. *Linguistic Typology* 16:435–485.

AnderBois, Scott. 2009. Strong positions and laryngeal features in Yukatek Maya. In *Proceedings of NELS 39*.

AnderBois, Scott. 2014. On the exceptional status of reportative evidentials. In *Proceedings of Semantics and Linguistic Theory (SALT) 24*, 234–254.

AnderBois, Scott. 2016. Semantics and pragmatics of (not-)at-issueness in Yucatec Maya attitude reports. *Semantics & Pragmatics* 9.

AnderBois, Scott, Adrian Brasoveanu, & Robert Henderson. 2015. At-issue proposals and appositive impositions in discourse. *Journal of Semantics* 32:93–138.

Avelino, Heriberto. 2009. Intonational patterns of topic and focus constructions in Yucatec Maya. In *New Perspectives in Mayan Linguistics*, 1–22. MIT Working Papers in Linguistics.

Bohnemeyer, Jurgen. 2002. *The grammar of time reference in Yukatek Maya*. LINCOM: Europa.

Briceño Chel, Fidencio, & Gerónimo Ricardo Can Tec. 2014. *U nu'ukbesajil u ts'íibta'al maayat'aan / normas de escritura para la lengua maya*. INALI.

Davis, Christopher. 2009. Decisions, dynamics and the Japanese particle *yo*. *Journal of Semantics* 26:329–366.

DeLancey, Scott. 1997. Mirativity: The grammatical marking of unexpected information. *Linguistic Typology* 1:33–52.

Faller, Martina. 2002. Semantics and pragmatics of evidentials in Cuzco Quechua. Doctoral dissertation, Stanford.

Faller, Martina. 2006. Evidentiality below and above speech acts. Ms. Univ. of Manchester.

Farkas, Donka, & Kim Bruce. 2010. On reacting to assertions and polar questions. *Journal of Semantics* 27:81–118.

Gunlogson, Christine. 2001. True to form: Rising and falling declaratives as questions in English. Doctoral dissertation, UCSC.

Hamblin, C. L. 1971. Mathematical models of dialogue. *Theoria* 37:130–155.

Hanks, William. 1984. The evidential core of deixis in Yucatec Maya. In *Proceedings of the Chicago Linguistic Society*, 154–172.

Huron, David. 2006. *Sweet anticipation: music and the psychology of expectation*. MIT Press.

INEGI, Instituto Nacional de Estadística y Geografía. 2009. Perfil sociodemográfico de la población que habla lengua indígena. Online at: http://www.inegi.org.mx.

MacFarlane, John. 2011. What is assertion? In *Assertion*, 79–96. Oxford University Press.

Malamud, Sophia, & Tamina Stephenson. 2015. Three ways to avoid commitments: Declarative force modifiers in the conversational scoreboard. *Journal of Semantics* 32:275–311.

Murray, Sarah. 2010. Evidentiality and the structure of speech acts. Doctoral dissertation, Rutgers.

Murray, Sarah. 2014. Varieties of update. *Semantics & Pragmatics* 7:1–53.

Northrup, Oliver. 2014. Grounds for commitment. Doctoral dissertation, UC Santa Cruz.

Peterson, Tyler. t.a. Mirativity as surprise: evidentiality, information, and deixis. *Journal of Psycholinguistic Research* .

Rett, Jessica, & Sarah Murray. 2013. A semantic account of mirative evidentials. In *Proceedings of SALT 23*, 453–472.

Salanova, Andrés Pablo, & Javier Carol. 2016. The Guaraní mirative evidential. Presentation at SULA 9, UC Santa Cruz, May 2016.

Stalnaker, Robert. 1978. Assertion. In *Syntax and Semantics 9*.

Verhoeven, Elisabeth, & Stavros Skopeteas. 2015. Licensing focus constructions in Yucatec Maya. *International Journal of American Linguistics* 81:1–40.