On the Syntax and Semantics of Content Questions in Yucatec Maya

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The aim of this paper is to describe and give a preliminary account of the syntax and semantics of content questions in Yucatec Maya, a Mayan language spoken by approximately 800 000 people on the Yucatan peninsula of Mexico and some regions in Guatemala and Belize. Content questions in Yucatec Maya are formed with a closed set of sortally restricted nominals, namely *máax* 'person', *ba'ax* 'thing', *tu'ux* 'place', *bix* 'manner' and *buka'an* 'quantity'. These nominals are not inherently interrogative, as indicated by their glosses. In pre-verbal position, they receive an interrogative interpretation, as illustrated in the examples in (1).[1]

(1)   a. **Máax**   il   -ik   -ech?
              person   see.AF -INC -B2sg
              'Who sees you?'

        b. **Ba'ax**   k-   a   jant -ik   -Ø?
              thing   IMPF- A2   eat   -INC   -B3sg
              'What are you eating?'

        c. **Tu'ux**   k-   a   bin?
              place   IMPF- A2   go
              'Where are you going?'

        d. **Bix**   a   k'aaba?
              manner   A2   name
              'What (lit. how) is your name?'

        e. **Buka'an**   a   k'aat -Ø   a   maan -eh   -Ø ?
              quantity   A2   wish -B3sg A2   buy   -SBJ   -B3sg
              'How many would you like to buy?'

In section 1 of this paper I demonstrate that the (bold-faced) nominals in (1) are not inherently interrogative: I illustrate a variety semantic types of nominal phrases that they participate in, and identify the structural and semantic conditions under which they receive an interrogative interpretation. The remainder of the paper (sections 2 and 3) is concerned with the licensing of interrogatives in Mayan languages. In section 2 I discuss content questions in Tzotzil, another Mayan language, and Aissen's 1996 syntactic licensing account. Based on a comparison of Tzotzil possessor questions (cf. Aissen 1996) and those of Yucatec Maya, I argue that the syntactic licensing account is not suitable to account for the Yucatec Mayan data and hence to provide a general theory of content questions in Mayan languages. In section 3 I present a semantic licensing account for content questions in Mayan languages. Section 4 concludes the paper. The remainder of this section introduces the relevant features of Yucatec Mayan morphosyntax.

Yucatec Maya, like all Mayan languages, is a head-marking language: in transitive clauses, the A-argument is cross-referenced on the verbal predicate with a pre-verbal clitic and the O-argument is cross-referenced by a suffix. (I use 'S' for the single argument of an intransitive predicate and 'A' and 'O' for the two arguments of transitive predicates, cf., e.g., Dixon 1994.) In the verbal clause in (2), the pre-verbal clitic *in* 'A1sg' cross-references the A-argument of the transitive predicate *chuk* 'catch' and the suffix *–ech* 'B2sg' cross-references the O-argument. (See below for an explanation of the glosses of the cross-reference markers.) Following Bohnemeyer 1998, a verbal clause like (2) is furthermore constituted by an aspect/mood marker which precedes the pre-verbal clitic that cross-references the A-argument (*t-* 'perf(ective)' in (2)) and by a status inflectional suffix (cf. Kaufmann 1990:71) which is *–ah* 'completive' in (2).

(2)   T-   in   chuk   -ah   -ech.
       PERF- A1sg   catch -CMP -B2sg
       'I caught you.'

Following the convention among Mayanists, the two sets of cross-reference markers that identify the transitive A and O are referred to as 'set A' and 'set B', respectively; e.g., 'A1sg' in (2) identifies the first person singular set A marker. The two sets of cross-reference markers of Yucatec Maya are given in Table 1.

set A:		sg	Pl		set B:		sg	pl
	1	in (w)	k/in(w)...-o'on			1	-en	-o'on
	2	a (w)	a(w)...-e'ex			2	-ech	-e'ex
	3	u (y)	u (y) ...-o'ob			3	-∅	-o'ob

Table 1: Cross-reference markers in Yucatec Maya

The cross-reference markers cannot be associated with a particular semantic role or grammatical function because both sets are used to cross-reference the single S-argument of intransitive predicates. Yucatec Maya is one of the languages which exhibit a fluid-S system that is conditioned by overt aspect (Bohnemeyer, to appear): the S-argument of intransitive predicates is cross-referenced by a set A marker when the predicate is marked with incompletive status and it is cross-referenced by a set B marker when the predicate is marked by completive or subjunctive status. For example, the intransitive verbal predicate *suut* 'return' in (3a) is marked for incompletive status (which is phonologically empty for intransitive active verbs), and therefore cross-references the S-argument by a set A marker (*in* 'A1sg'). In (3b), where the verb is marked by completive status *–nah* 'CMP', the S-argument is cross-referenced by a set B marker (*-en* 'B1sg').

(3)   a. K-   in   suut   -∅.
          IMPF-   A1sg   return -INC
          'I return/am returning.'

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        b. H-           suut    -nah   -en.
           PERF-        return  -CMP   -B1sg
           'I returned.'
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1 Bare singular nominals in Yucatec Maya

The examples in (1) illustrate the closed set of sortally restricted bare singular nominals that are used to form content questions in Yucatec Maya, namely *máax* 'person', *ba'ax* 'thing', *tu'ux* 'place', *bix* 'manner' and *buka'an* 'quantity'. In this paper, I refer to this particular set of nominals as 'general' bare singular nominals. The aim of this section is to illustrate the range of interpretations that 'general' bare singular nominals can receive and compare their use to that of the other, i.e., non-'general', bare singular nominals (henceforth referred to as 'general' and non-'general' nominals). A first difference between 'general' and non-'general' nominals concerns their interpretation in pre-verbal position. In contrast to the 'general' nominals, which receive an interrogative interpretation in pre-verbal position, non-'general' nominals result in a focus interpretation when realized pre-verbally. This is illustrated by the example in (4) where the non-'general' nominal *kay* 'fish' receives a contrastive focus interpretation.[2]

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(4)   Ma'    k'eek'en -i',    kay    -Ø    t-      in     maan   -ah    -Ø.
      NEG    pig      -D4     fish   -B3sg PERF-  A1sg   buy    -CMP  -B3sg
      'It's not pork, it's fish that I bought.'
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The second difference between 'general' and non-'general' nominals concerns their interpretability in post-verbal position. As illustrated in the examples in (5), the nominal *peek'* 'dog' in (5a) may occur in post-VC position where it contributes to the habitual interpretation of the utterance. The 'general' nominal *ba'ax* 'thing', however, is ungrammatical in post-verbal position, as illustrated in (5b).[3]

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(5)   a. Taan       in     maan   -ik    -Ø     peek'.
         PROG       A1sg   buy    -INC  -B3sg  dog
         'I buy dogs.'
      b. *Taan      in     maan   -ik    -Ø     ba'ax.
         PROG       A1sg   buy    -INC  -B3sg  thing
         (int: I buy things.)
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While 'general' nominals cannot occur in post-verbal position by themselves, they are grammatical in post-verbal position when additional content is provided, e.g., by a relative clause. This is illustrated by the examples in (6) where (underlined) verbal clauses are followed by (bold-faced) 'general' nominals. For instance, *ba'ax* 'thing' in (6b) is grammatical in the post-verbal position of the verb *beet* 'do' since it heads the relative clause *k-aw a'al-ik* 'you say it'.

(6) a. Taan   in   máan <u>in   kax</u> **máax** ka'ans –ik   -en   meyaj.
     PROG A1sg pass A1sg   search person teach –INC -B1sg work
     'I am looking for somebody to teach me how to work.'   (AMI:237)

   b. <u>Beet   -Ø</u> **ba'ax** k- aw   a'al -ik   -Ø.
     do.IMP   -B3sg thing IMPF- A2   say   -INC   -B3sg
     'Do what you say.'

   c. Ko'ox.   <u>Bis   -en</u> **tu'ux** t-   a   bis   -aj   -o'ob.
     lets.go   take   -B1sg place PERF- A2   take   -CMP -PL
     'Let's go! Take me to where you took them.' (AMI:95)

   d. <u>Beet -Ø</u> **bix** uch   in   wa'ala -ik   tech   -o'
     do.IMP-B3sg manner REM A1sg say   -INC   pron.2sg   -D2
     'Do as I told you!'

   e. <u>Maan   -Ø</u> **buka'an**   k'aat -a'a tech   -o'!
     buy.IMP   -B3sg quantity   wish -PSV pron.2sg   -D2
     'Buy the quantity that they asked you for!'

A third difference between 'general' and non-'general' nominals concerns free-choice interpretations. 'General' nominals receive a free-choice interpretation in the context of *he'en...-ak*, as illustrated in the examples in (7).

(7) a. <u>He'en</u> **máax** <u>-ak</u> h-   u   beital u   bin   ich   kool
            person   PERF- A3   can A3   go   into   milpa
     meyah   -ej.
     work   -TERM
     'Anybody can go work in the milpa.'

   b. Bi'in   ken   inw uk'   -Ø   <u>he'en</u> **ba'ax** <u>-ak</u> -eh.
     PRED SR.IRR   A1   drink -SBJ   thing   -D3
     'I will drink anything.'

   c. H-   u   beital bin   <u>he'en</u> **tu'ux** <u>-ak</u> -eh.
     PERF-   A3   can   go   place   -D3
     'I can go anywhere.'

   d. <u>He'en</u>   **bix**   <u>-ak</u> -e'   yan   in   bin   baaxa.
            manner   -D3   OBL   A1sg go   play
     'In any way/whatever happens, I will go to play. '

   e. <u>He'en</u> **buka'an**   <u>-ak</u> -e'   yan   in   maan -ik   tech.
            quantity   D3   OBL   A1sg buy   -INC   pron.2sg
     'No matter how much (it costs), I will buy it from you.'

Non-'general' nominals cannot co-occur with *he'en...-ak*. To create a free-choice nominal headed by a non-'general' nominal *makamaak* together with *he'en* is used, as illustrated in the example in (8a) with the non-'general' nominal *xch'uup* 'woman'.

Without *he'en, makamaak* receives an interpretation comparable to the English 'which', as illustrated by the example in (8b) which is felicitous in a context with an established set of women. The exact contributions of *he'en, makamaak* and *–ak* to the free-choice interpretations are unclear but these examples, too, demonstrate that 'general' and non-'general' nominals are associated with distinct lexical semantic features.

(8)   a. <u>He'en makamaak</u> **xch'uup** h-   u   beital u   meyah -eh.
                             woman   PERF- A3   can   A3   work   -TERM
          'Any woman can work.'
       b. <u>Makamaak</u> **xch'uup**   h-   u   beital u   meyah -eh?
                        woman   PERF- A3   can   A3   work   -TERM
          'Which woman can work?'

A fourth difference between 'general' and non-'general' nominals concerns indefinite interpretations. 'General' nominals form unspecific indefinite noun phrases with the marker of alternatives *wáah* 'ALT', as illustrated in (9).

(9)   a. In   k'aat   ts'o'ok -ok   in   beel   yeetel <u>wáah</u> **máax**.
          A1sg   wish   finish   -SBJ   A1sg   path   with   ALT   person
          'I want to marry somebody.'
       b. In   k'aat   in   jant   -Ø   -Ø   <u>wáah</u> **ba'ax**.
          A1sg   wish   A1sg   eat   -SBJ   -B3sg   ALT   thing
          'I want to eat something.'
       c. In   k'aat   bin   <u>wáah</u> **tu'ux**.
          A1sg   wish   go   ALT   place.
          'I want to go somewhere.'
       d. <u>Wáah</u>   **bix**   -e'   in   k'aat   in   maan   -eh.
          ALT   manner-D3   A1sg   wish   A1sg   buy   -SBJ
          'In some way, I wish to buy it.'
       e. In   k'aat   k-   a   koon   <u>wáah</u> **buka'an**   -i'
          A1sg   wish   IMPF-   A2sg   buy   ALT   quantity   -D4
          'I want you to sell some (quantity).'

I refer to *wáah* as a marker of alternatives because in a variety of contexts *wáah* serves to indicate that alternatives are available. In (10a), where *wáah* coordinates two nominal phrases, *wáah* is interpreted as a marker of referential alternatives, comparable to English 'or'. In (10b), *wáah* embeds a proposition: it indicates the availability of propositional alternatives, which results in a conditional interpretation. Finally, *wáah* can cliticize to the main predicate of a proposition in which case it serves as a question/focus marker (cf. also Bohnemeyer 1998:182). This use of *wáah* is illustrated in (10c) where it cliticizes to the predicate *yan* 'exist'.

(10) a. A   k'aat   le   ha'   -o'   **wáah** le   cerveza -o'?
          A2sg   wish   DEF   water -D2   ALT   DEF   beer   -D2
          'Do you want the water or the beer?'
      b. **Wáah** yan   ka'ach   u   na'ate',   ayik'al -Ø   -eh.
          ALT   exist formerly A3   intelligence, rich   -B3sg -TERM
          'If he were intelligent, he would be rich.'
      c. Yan **wáah** máak t-   aw   il   -ah   -Ø?
          exist ALT person PERF- A2sg   see   -CMP   -B3sg
          'Did you see somebody?'

Non-'general' nominals cannot occur with *wáah*. Rather, these nominals form unspecific and specific indefinite noun phrases with the indefinite article *jun* 'one', as illustrated in (11).

(11) In   k'aat   in   ts'o'ok -ok   in   beel yeetel jun -p'e   xch'uup.
      A1sg wish   A1sg finish -SBJ A1sg path with   a   -CL   woman
      'I want to marry some woman.'

The results of the uses of 'general' and non-'general' nominals are summarized in Table 2. Although the details of the interpretation of several of the noun phrases that I have illustrated above are still unclear and left to future research, this discussion has two important results. First, 'general' nominals are not inherently interrogative but can participate in a number of semantic types of noun phrases. Second, 'general' and non-'general' nominals differ in their lexical semantic specifications.

nominal	interpretation in pre-verbal position	availability in post-VC position	indefinite interpretation	free-choice interpretation
'general'	interrogative	only with relative clause	*wáah* 'ALT'	*he'en...ak*
non-'general'	contrastive focus	OK	*jun* 'one'	*he'en makamaak*

Table 2: The interpretations of 'general' and non-'general' nominals

I have established above that 'general' nominals are not inherently interrogative. A necessary condition for an interrogative interpretation is their realization in pre-verbal position (cf. examples in (1)). However, this condition is not sufficient. Additionally, the 'general' nominal may not be in the scope of a semantic operator. For instance, the 'general' nominal *máax* 'person' in (7a) occurs in pre-verbal position but does not receive an interrogative interpretation because it is embedded by *he'en...ak*. Similarly, in (9d), *bix* 'manner' is realized in pre-verbal position but co-occurs with *wáah* 'ALT' and hence receives an indefinite rather than an interrogative interpretation. The examples in (12) illustrate further semantic operators that prevent a 'general' nominal

from receiving an interrogative interpretation. In (12a), *ba'ax* 'thing' occurs in the scope of the positive existential predicate *yan*. In (12b), the 'general' nominal *bix* 'manner' is in the scope of negation *ma'*. Finally, in (12c), the 'general' nominal *buka'an* 'quantity' heads a nominal phrase that is embedded by the definiteness construction *le...-o'*.

(12) a. <u>Yan</u>   **ba'ax** t-   u   beet   -ah   -Ø.
         exist   thing   PERF- A3   do   -CMP -B3sg
         'There's something (bad) he did.' (AMI:37)

      b. <u>Ma'   bey   -o'</u>   **bix**   he'l   in   beet   -ik   -ej.
         NEG   so   -D2   manner ASS   A1sg   do   -INC -ASS
         'That's not how I did it.'

      c. <u>Le **buka'an**</u>   t-   in   maan   -ah   <u>-o'</u>   chuka'an tia'a
         DEF quantity   PERF- A1sg   buy   -CMP -D2   sufficient for
         le   janal   -o'.
         DEF food   -D2
         'The quantity that I bought is sufficient for the food.'

Concluding, 'general' nominals are a subset of the nominals with particular lexical semantic properties (cf. Table 2). In order for a 'general' nominal to receive an interrogative interpretation it must be realized in pre-verbal position and may not be in the scope of a semantic operator.

2 Aissen's 1996 syntactic licensing account

Aissen 1996 presents a syntactic licensing account for interrogative phrases in Tzotzil, another Mayan language. Tzotzil content questions are formed with four *wh-* roots (cf. Aissen 1996:452): *buch'u/much'u* for persons, *k'u(si)* for things, *bu(y)* for locations and situations, and *jay-* for quantities. Just like in Yucatec Maya, these roots must be realized in pre-verbal position in order to receive an interrogative interpretation and at least *k'usi* is ungrammatical by itself in post-verbal position, as illustrated in (13a) and (13b), respectively. It seems that the Tzotzil *wh-*roots can also participate in other semantic types of noun phrases: (13c) illustrates *k'usi* with the Tzotzil free-choice suffix *–uk*. However, at this point it is unclear whether Tzotzil *wh-*roots are as productive as the 'general' nominals of Yucatec Maya in realizing other types of noun phrases. (I reproduce Aissen's examples with her glosses.)

(13) a. K'usi   a-man?
         what   A2-buy
         'What did you buy?'   (Aissen 1996:453, ex (16a))

      b. *A-man   k'usi?   (Aissen 1996:453, ex (16b))

      c. K'us[i]   -uk   nox   k-uch'.
         what   -ANY   just   A1-drink
         'I'll drink anything.'   (Aissen 1996:475, ex. (77))

In order to account for the fact that Tzotzil *wh*-roots must be realized in pre-verbal position, Aissen proposes (following, e.g., Fukui 1986 and Kuroda 1988) that the *wh*-root must be realized in a position that Agrees with the functional head C which carries the semantic feature [+WH]. This is formulated in her *wh*-Criterion (Aissen 1996:453).

(14)   *wh*-Criterion for Tzotzil
       a. C[+WH] must Agree with a [+WH] phrase.
       b. A [+WH] phrase must Agree with C[+WH] (to be interpreted as interrogative)

Agreement, according to Aissen, is a transitive relation that exists between a head and its specifier and between a head and its projections. Hence, in simple content questions like (13a) the *wh*-root is realized in SpecCP, which is the pre-verbal position that Agrees with C[+WH]. (13b) is ungrammatical since the post-verbal subject position does not Agree with C[+WH].

The assumption that *wh*-roots do not have to be realized directly in SpecCP but in a position that Agrees with C[+WH] is crucial for Aissen in order to account for possessor questions in Tzotzil: in these constructions the *wh*-root is not directly realized in SpecCP but is embedded within a phrase that is realized in SpecCP. Non-*wh* possessors in Tzotzil are realized in post-nominal position. This is illustrated by the example in (15a) where the possessor *li Xun* 'the Xun' is realized after the possessed nominal *s-tot* 'his father'. In order to question the possessor, the phrase that contains the questioned possessor is realized in pre-verbal position, as illustrated in (15b) where *buch'u s-tot* 'whose father' is realized in SpecCP, according to Aissen's analysis. Note that the questioned possessor is realized in a pre-nominal position. As illustrated in (15c), it is ungrammatical in Tzotzil to leave the questioned possessor in the post-nominal position in which non-wh possessors are realized.

(15)   a. I-k-il-be   s-tot   li   Xun-e
           CP-A1-see-IO   A3-father   the   Xun-ENC
           'I saw Xun's father.'   (Aissen 1996:456, ex (31a))
       b. [Buch'u   s-tot]$_i$ av-il-be   t$_i$?
           who   A3-father   A2-see-IO
           'Whose father did you see?'   (Aissen 1996:457, ex (34))
       c. *[S-tot   buch'u]$_i$ av-il-be   t$_i$?
           A3-father who   CP/A2-see-IO
           (Whose father did you see?)   (Aissen 1996:458, ex (36))

The ungrammaticality of (15c) is accounted for by Aissen's *wh*-Criterion since a wh-word that is realized in the post-nominal position of the fronted phrase does not Agree with C[+WH]. The *wh*-root in (15b) on the other hand is correctly licensed by (14) since SpecDP Agrees with C[+WH]. Prepositional possessor questions further support

Aissen's analysis of Tzotzil. As illustrated in the example in (16b), the prepositional phrase that contains the questioned possessor is realized in pre-verbal position. Again, the questioned possessor is realized not in the post-nominal position but in the specifier position of the fronted prepositional phrase, i.e., in a position that Agrees with C[+WH]. The constructions in which the *wh*-root is realized in the post-nominal or in the specifier position of the embedded DP are ungrammatical, as illustrated in (16c) and (16d), respectively. This is correctly predicted by (14) since these positions do not Agree with C[+WH].

(16)   a. I-kom   ta   s-na.
           CP-remain P   A3-house
           'He remained at his house.' (Aissen 1996:468, ex (58a))
        b. Buch'u   ta   s-na   ch-a-bat?
           who   P   A3-house   ICP-B2-go
           'To whose house are you going?'   (Aissen 1996:470, ex (63))
        c. *Ta s-na   buch'u ch-a-bat?
            P   A3-house   who   ICP-B2-go
           (Whose house are you going to?) (Aissen 1996:470, ex (65))
        d. *Ta buch'u s-na   ch-a-bat?
            P   who   A3-house   ICP-B2-go
           (Whose house are you going to?) (Aissen 1996:472, ex (69))

Aissen's analysis correctly and elegantly accounts for the Tzotzil data. Unfortunately, it is not equally suited to account for the licensing of content questions in Yucatec Maya as I argue in the remainder of this section. First, consider possessor questions in Yucatec Maya. Just like in Tzotzil, non-questioned possessors are realized in post-nominal position: in (17a), the possessor *Pedro* is realized post-nominally and is cross-referenced on the nominal with the set A marker *u* 'A3sg'. In order to question the possessor, the phrase containing the question word has to be realized in pre-verbal position. As illustrated in (17b) and (17c), there are two ways to form possessor questions in Yucatec Maya. In (17b), the complex possessive phrase *u yaal máax* 'whose son' is realized in pre-verbal position and the questioned possessor is realized in the post-nominal position, i.e., the same position in which a non-questioned possessor is realized. (Recall that this construction is ungrammatical in Tzotzil, cf. example (15c).) The example in (17c) illustrates the second way in which possessor questions can be formed in Yucatec Maya: here, the questioned possessor is realized in pre-nominal position and the nominal is marked with the relational suffix *-il*. Note that the possessor in (17c) is not cross-referenced on the nominal predicate with a set A marker.

(17)   a. H-   luub   -Ø   [u   yaal   Pedro].
           PERF-   fall   -B3sg A3sg son   Pedro
           'Pedro's son fell.'

b. [U   yaal   máax] h-   luub   -Ø   -ih?
   A3sg son   person PERF- fall   -B3sg -TERM
   'Whose son fell?'

c. [Máax   yaal   -il]   h-   luub   -Ø   -ih?
   person   son   -REL PERF- fall   -B3sg -TERM
   'Whose son fell?'

The 'general' nominals *máax* 'person' in both (17b) and (17c) receive an interrogative interpretation although they do not occupy the same structural position within the fronted nominal. Parallel data exist for questioned possessors that are embedded in prepositional phrases. The prepositional phrase in (18a) is headed by the preposition *yeetel* 'with' which takes the nominal phrase *u kiik Pedro* 'Pedro's sister' as its argument. In order to question the possessor that is embedded in the prepositional phrase, the whole phrase is realized pre-verbally, as illustrated in (18b) and (18c). Note that the questioned possessors in these constructions are not realized in the specifier position of the prepositional phrase (unlike in Tzotzil, cf. (16b)), but are again either realized in the post-nominal position (18b) or in a pre-nominal position (18c).

(18)   a. K- in   baaxt -ik   football   [yeetel [u   kiik Pedro]$_{NP}$]$_{PP}$.
      IMPF- A1   play   -INC   football with   A3   sister Pedro
      'I play soccer with Pedro's sister.'

    b. [Yeetel   [u kiik   máax]$_{NP}$]$_{PP}$ k-   a   baaxt -ik   football?
      with   A3 sister person   IMPF- A2   play   -INC   football
      'With whose sister do you play football?'

    c. [Yeetel   [máax kiik   -il]]$_{PP}$ k-   a baaxt -ik   football?
      with   person sister -REL IMPF- A2 play -INC football
      'With whose sister do you play football?'

Thus, Yucatec Mayan and Tzotzil possessor questions both require the phrase that contains the questioned possessor to be realized in pre-verbal position. However, within the pre-verbal phrase, the questioned possessor is realized in distinct structural positions in the two Mayan languages. This poses a problem for Aissen's structural account for the licensing of *wh*-roots since it assumes that the *wh*-root has to stand in a particular structural configuration with the functional head C[+WH] in order to receive an interrogative interpretation. Aissen's structural licensing account, as it stands, cannot license Yucatec Mayan interrogative phrases and, hence, is not a general account for content questions in Mayan languages.

With respect to Yucatec Maya, a second drawback of Aissen's syntactic licensing account is that it does not take into consideration the lexical semantic properties that distinguish 'general' from non-'general' nominals (recall from above that it is not clear at this point whether Tzotzil wh-roots can participate in the same variety of nominal phrases). This criticism refers to Aissen's 1996 assumption that focused phrases are

realized in a different position than interrogative phrases: Aissen assumes that focused phrases are licensed in a position that Agrees with the functional head I, which is associated with the focus feature [+F]. What this means for Yucatec Maya is that 'general' and non-'general' nominals receive distinct interpretation because they are realized in distinct structural positions. However, if there are particular lexical semantic properties that distinguish 'general' and non-'general' nominals, it does not seem necessary to assume that the two types of nominals are realized in distinct pre-verbal positions in order to derive or license their distinct interpretations. The proposal that 'general' and non-'general' nominals are realized in the same pre-verbal position finds support in Yucatec Maya. First, both in content questions and focus constructions the nominal that receives the interrogative or focus interpretation, respectively, must be realized in the position that immediately precedes the verbal clause. The content question in (19a) is grammatical since *ba'ax* 'thing' immediately precedes the verbal clause and the agent argument *Maria* is realized in post-verbal position. (19b), however, where *Maria* is realized between the question word *ba'ax* 'thing' and the verbal clause is ungrammatical.

(19) a. Ba'ax   t-   u   jant   -ah   -Ø   Maria?
          thing   PERF- A3   eat   -CMP -B3sg Maria
          'What did Maria eat?'
      b. *Ba'ax   Maria t-   u   jant   -ah   -Ø?
          thing   Maria PERF- A3   eat   -CMP -B3sg

Similarly, the focus construction in (20a) where *Maria* is realized post-verbally is grammatical but (20b) where *Maria* is realized between the focused nominal *bu'ul* 'beans' and the verbal clause is ungrammatical.

(20) a. Bu'ul   k-   u   jant   -ik   -Ø   Maria.
          beans   IMPF- A3   eat   -INC   -B3sg Maria
          'Beans is what Maria eats.'
      b. *Bu'ul   Maria k-   u   jant   -ik   -Ø.
          beans   Maria IMPF- A3   eat   -INC   -B3sg

Thus, both 'general' and non-'general' nominals are realized in the position that immediately precedes the verbal clause. The assumption that 'general' and non-'general' nominals are realized in the same pre-verbal position finds further support in the fact that an interrogative and focused phrase cannot co-occur: a predication may either realize a content question or a focus construction but not both at the same time, even if this is contextually supported. For instance, consider a context in which Kim and Maria are eating something and we have just asked what it is that each of them is eating. We have been told that Kim is eating tortillas but not what Maria is eating. Thus, our next question, i.e., *What does MARIA eat?*, focuses on Maria and contrasts her with Kim. Even in this context, (19b) is ungrammatical.

Concluding, I assume that the nominals in content questions and focus constructions are realized in the same pre-verbal clause position in Yucatec Maya, thus accounting for the observed co-occurrence restriction. As illustrated in Figure 1, content questions and focus constructions instantiate the same basic structure, consisting of a predicative (e.g., nominal) phrase that immediately precedes the verbal clause. Content questions are henceforth regarded as a subtype of focus constructions since they are formed with a subset of the bare singular nominals, namely the 'general' nominals.
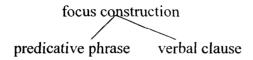
focus construction
/   \
predicative phrase   verbal clause

Figure 1: Focus constructions in Yucatec Maya

3 A preliminary account for content questions in Mayan languages

I established in section 1 that 'general' nominals in Yucatec Maya are not inherently interrogative. In this paper, I assume that 'general' nominals like other nominal predicates receive an interpretation as indefinites (cf. Kamp 1981, Heim 1982): they contribute a variable and a descriptive content, and their interpretation depends on the semantic, pragmatic and information-structural properties of the structures they occur in. Why then do 'general' nominals receive an interrogative interpretation in the context of focus constructions (while non-'general' nominals receive a focus interpretation)? I argue here that this is a consequence of (i) the particular lexical semantic features that characterize 'general' nominals, and (ii) the semantic/pragmatic and information-structural properties of focus constructions.

I argue that, information-structurally, focus constructions have a cleft-like structure: the material in the verbal clause of a focus constructions is presupposed while the predicative phrase is focus, i.e., it provides the information that "cannot be taken for granted at the time of speech. It is the UNPREDICTABLE [...] element in an utterance" (Lambrecht 1994:213). For instance, the focus construction in (21a) is appropriate in a context in which the speaker can assume that the hearer knows that 'She is eating something', i.e., the material of the verbal clause of (21a). The presupposition of a focus construction can be modeled as the question that the focus construction provides an answer to, i.e., (21a) is appropriate in a context in which the question 'What is she eating?' is under discussion. Formally, this can be represented as $?x.eat(she,x)$, or, generally, $?x.VC(x)$ where x corresponds to the variable that is introduced by the cross-reference marker of the verbal clause (VC) that corresponds to the pre-verbal nominal predicate. The information-structural properties of focus constructions differ crucially from those of the corresponding non-focus constructions (where the nominal predicate is realized in post-verbal position). This can be illustrated

by the following question/answer-pairs: the assumption is that the suitability of an utterance as an answer to a particular question depends on whether its information-structural properties match those of the question. For instance, consultants judge the focus construction (21a) an appropriate answer to the question in (22a) but not to the question in (22b). On the other hand, the corresponding non-focus construction (where the nominal *bu'ul* 'beans' is realized post-verbally) is accepted by consultants as an answer to (22b) but not to (22a).[4] These judgements are accounted for if we assume that the information-structural properties of the focus construction in (21a) differ from those of the non-focus construction in (21b); in particular, if we assume that the (underlined) nominal predicate is in focus in (21a) while it is the entire (underlined) construction in (21b) which is in focus. The questions in (22) (being focus construction, too) also differ in their information-structural properties: in (22a), the question under discussion is 'What is Maria eating?', or ?x.eat(maria,x), while it is 'What is Maria doing?', or ?x.do(maria,x), in (22b). Consequently, the presupposition of the focus construction in (21a) matches the question in (22a) but not the question in (22b) (and vice versa for (21b)).

(21)   a. <u>Bu'ul   -Ø</u>   k-   u   jant   -ik   -Ø.
           beans   -B3sg   IMPF- A3   eat   -INC   -B3sg
           'Beans is what she is eating.'
        b. <u>Tun   jant   -ik   -Ø   bu'ul.</u>
           PROG:A3   eat   -INC   -B3sg   beans
           'She is eating beans.'

(22)   a. Ba'ax   -Ø   k-   u   jant   -ik   -Ø   Maria?
           thing   -B3sg   IMPF- A3   eat   -INC   -B3sg   Maria
           'What is Maria eating?'
        b. Ba'ax   -Ø   k-   u   beet   -ik   -Ø   Maria?
           thing   -B3sg   IMPF- A3   do   -INC   -B3sg   Maria
           'What is Maria doing?'

Having established the information-structural properties of focus constructions (including content questions), the lexical semantic differences between 'general' and non-'general' nominals can be taken to determine whether the construction receives a focus or an interrogative interpretation. In focus constructions proper, the non-'general' nominal provides the new/unexpected information to the discourse and answers the question under discussion. For instance, *bu'ul* 'beans' in (21a) answers the question under discussion and hence receives a focus interpretation. For the focus construction in the question/answer-pair (21a/22a), the question under discussion is explicit, but note that the question under discussion can also be implicit in a discourse context. This is the case for content questions, which are appropriate in contexts in which the question under discussion has not yet been uttered (or otherwise it would make no

sense to utter the question). Nevertheless, content questions, too, are only suitable in those contexts in which the material in the verbal clause is presupposed. For instance, the content question in (22a) is felicitous in a discourse situation in which the speaker has reason to believe that the hearer, too, knows that Maria is eating something. Hence, the implicit question under discussion is 'What is Maria eating?', or ?x.eat(maria,x). The speaker utters (22a) in order to make explicit the question under discussion, i.e., to inquire what it is that Maria is eating. The lexical semantic properties of 'general' nominals are ideally suited to make explicit the question under discussion without answering it: they are semantically less contentful than non-'general' nominals but provide sortal information that determines whether the question inquires about things (with *ba'ax*), persons (with *máax*), places (with *tu'ux*) and so on. Hence, if a 'general' nominal is realized in or as the phrase that heads a focus construction (and is not in the scope of a semantic operator), it receives an interrogative interpretation. Since this analysis does not require the 'general' nominal to stand in a particular structural configuration to the functional head C, it also licenses the interrogative interpretation of *wh*-roots in Tzotzil in pre-verbal position.

4 Conclusions

I have argued that the 'general' nominals that are used to form content questions in Yucatec Maya are not inherently interrogative. These nominals receive an interrogative interpretation in focus constructions because of the particular lexical semantic properties that characterize these nominals as well as the semantic/pragmatic and information-structural properties of focus constructions. The advantage of this semantic licensing account of interrogatives is that it accomodates structural differences between Yucatec Mayan and Tzotzil content questions. Further development of the account is needed in order to account for the language-particular constraints on the position of the interrogative element: as it stands, the analysis does not predict the structural differences between Yucatec Mayan and Tzotzil possessor questions. Finally, the semantic properties of 'general' nominals/*wh*-roots in Yucatec Maya, Tzotzil and other Mayan language deserve further investigation.

Notes

1. The data in this paper was collected during my fieldwork or taken from Andrade and Máas 1999 (AM1). The following glosses are used, besides those explained in the text: AF=agent focus voice; ASS=assurative aspect/mood; CL=classifier; CMP =completive status, D1/2/3/4=deictic markers; DEF=definite; NEG=negation; IMP=imperative; IMPF=imperfective aspect; INC=incompletive status; OBL= obligative aspect/mood; PERF=perfective aspect; PL=plural, PRED=predicative aspect/mood; PROG=progressive aspect; PSV=passive; REL=relational; REM= remote past; SBJ=subjunctive status; SR.IRR=irrealis; TERM=terminative marker.

2. Following Tonhauser (to appear, a), I assume that the nominal predicate *kay* 'fish' is the main predicate of this focus construction, hence glossed as *kay –Ø* 'fish –B3sg' (cf. section 2.2 and 3). For simplicity, only relevant content questions and focus constructions are glossed according to this analysis in this paper.

3. The 'general' nominals *ba'ax* 'thing' and *máak* 'person' have non-'general' counterparts *ba'al* and *máak*, respectively.

4. The fact that (21a) and (21b) feature distinct aspect/mood markers can be neglected here. Both utterances are interpreted as progressives in the appropriate context.

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