Position, function and interpretation of topics in Somali

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1. Introduction

In recent analyses evidence has been provided for a *systematic connection* between the discourse functions of Topics and their formal properties, which is encoded in a strict hierarchy in the C-domain. In other words, not only are Topics not included in the prosodic domain of the sentence (cf. Frascarelli 2000), they are also made prominent by *different intonational events* according to their *specific discourse role*. This crucial connection, originally proposed in Frascarelli and Hinterhölzl (henceforth F&H 2007) on Italian and German data, has been supported by subsequent analyses on typologically diverse languages (see Frascarelli 2008 for a comparison between Romance and Bantu languages, Frascarelli in press on Tagalog and Malagasy and, finally, Puglielli and Frascarelli 2007 for an investigation on signed languages).

The aim of this paper is to examine the intonational properties of Topics in Somali, peruse the interpretation of these constituents and consider the complex interplay between different levels of analysis (i.e., the syntax-prosody-discourse interface) in order to check the validity of the aforesaid connection in a polysynthetic language (in the sense of Baker 1996; cf. section 2.2 and, in particular, note 6), in which full DPs are obligatorily realized as Topics. Like in the works mentioned above, the relevant investigation is based on natural speech (unstructured conversations among native speakers), which we consider as a basic feature for a real understanding of information structure and its properties.

2. Basics for the analysis

2.1. The fine structure of the Topic field in the C-domain

In a cartographic approach (cf. Rizzi ed. 2004), the original CP-node (a recursive phrase, targeted by different functional categories) has been reanalysed as an array of functional projections, each dedicated to a specific func-

tion related to information structure. The C-domain thus provides an interface between the propositional content (the IP-node) and specific discourse roles.

In particular, F&H (2007) provide intonational and syntactic evidence that different types of TopP projections must be posited in the left periphery of the sentence: [1]

> "Discourse properties have structural correlates both in phonology and in syntax. In other words, […] different types of Topics show different intonational properties and are realized in a specific order in the CP-system."
>
> (F&H 2007: 89)

Specifically, according to the authors' analysis (that we assume), the ShiftP projection is dedicated to the *Aboutness-shift Topics*, FamP is the location of *Familiar Topics* and, finally, ContrP is the position in which *Contrastive Topics* are interpreted. A 'free recursion analysis' (Rizzi 1997) is thus refuted and a hierarchy is proposed in which different functional projections are distinguished in terms of discourse, prosodic and syntactic properties:[2]

(1) [ForceP [ShiftP [GP [ContrP [FocP [FamP*[3] [FinP
            L*+H   H*   L*

As we can see, Topic constituents are associated with three different tonal events which, according to the Autosegmental-metrical theory (cf. Goldsmith 1990), can be described as L*+H, L* and H*.[4] Since the interpretation and formal properties of Aboutness-shift and Familiar Topics will play an important role in the following discussion, let us consider them in some detail (on Contrastive Topics, see also Kuno 1976, Büring 1999, Molnár 2002).

The *Aboutness-shift Topic* represents "what the sentence is about" (cf. Givón 1976; Reinhart 1981; Chafe 1987), with particular reference to the element that qualifies as a shifting point in the conversation and is made prominent with respect to other (possible) Topics in the discourse. This type of Topic can be therefore defined as something that is "newly introduced, newly changed or newly returned to" (Givón 1983: 8) – hence, it is not necessarily given in the discourse. It is realized in the highest TopP projection in the C-domain and is signalled by a sharp rise in the F0. This rise is aligned with the tonic vowel in its full extension and reaches its peak on the post-tonic syllable.

Familiar Topics, on the other hand, are always part of background information (i.e., they are 'D(iscourse)-linked' elements, cf. Pesetsky 1987) and

are generally produced to obtain Topic 'continuity' (cf. Givón 1983). These Topics are realized in a low position in the C-domain and their tonic vowel is marked as L*.

In order to illustrate the discourse and formal properties of both types of Topic, let us consider the sentence underlined in the following text and the relevant Figure (for more details, cf. the references cited in the Introduction):

(2)   *Era tutto molto nuovo nel senso che comunque la lingua **inglese** attraverso i programmi sul computer diciamo non l'avevo mai-* […] *comunque l'**inglese** risultava anche facendolo da solo più interessante* […] ***io, inglese*** *non- premetto non l'avevo mai fatto.*

'Everything was totally new to me in the sense that I had never studied English through computer programs […] and through self-learning English appeared more interesting to me […] I must say that I had never studied English before.'
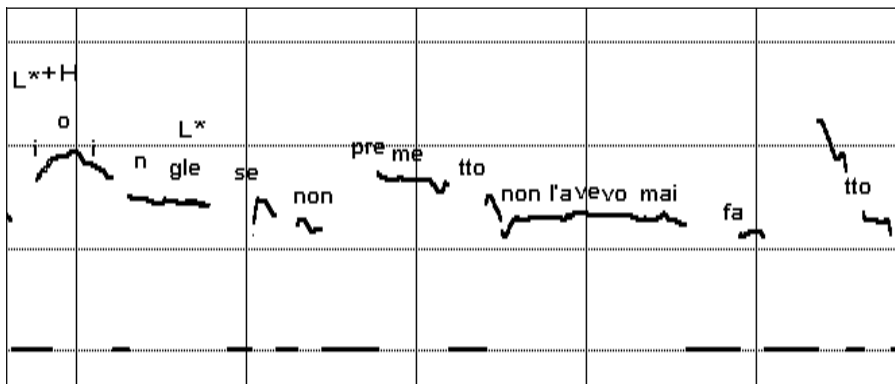

Figure 1.

As we can see, *inglese* – a direct object (DO) resumed by the clitic *lo* – is realized as low in the left periphery of the sentence and qualifies as a Familiar (continuing) Topic. On the other hand, the subject-Topic *io* marks a shift in the conversation: the speaker is still talking about English but, at that point, she wants to comment on her personal relation to that language. Accordingly, *io* is characterized by an intonational rise that is aligned with the tonic vowel [i].[5]

2.2. Topic constructions in Somali

Somali is a polysynthetic language (cf. Baker 1996). This condition entails that θ-roles are only assigned through incorporation onto the verbal head (the so-called 'Morphological Visibility Condition', MVC). Hence, argument structure is realized by means of *clitic pronouns* that are disposed in the Verbal Complex (VC) in a rigid SOV order (Puglielli 1981; Svolacchia and Puglielli 1999), while *full DPs* are merged in *non-argument position* and connected to the sentence by means of resumptive pronouns.[6]

Topics in Somali can be located in different positions, as is illustrated in (3):[7,8]

(3)   <u>*Shalay*</u>   *CALI baan$_k$ (baa-aan) <u>anigu$_k$</u> Ø$_j$-ku*   *arkay*
       yesterday Cali FM-SCL.1SG   I.NOM OCL.3SG-at see.PST.1SG
       <u>*jaamacadda*$_j$</u>
       university.DET
       'Yesterday, I saw CALI at the university'

As we can see, Topics can be connected to argument positions through clitic resumption (see the coindexing between the SCL *aan* and the Topic *anigu*, showing NOM Case), they can be interpreted as oblique complements (and be connected with elements in the VC)[9] or, finally, they have the typical interpretation of adverbial expressions (cf. the DP *shalay*). As for their position, *shalay* is realized as a left-hand Topic (before the Focus[10]), *anigu* is an 'internal' Topic (located between the FM and the VC) and, finally, *jaamacadda* is a right-dislocated Topic.

Frascarelli and Puglielli (2007b) provide morpho-syntactic evidence that different Topic positions correspond to different pragmatic functions in the discourse. Consider, for instance, the contrast offered by the following yes-no questions:

(4)   a. *hadiyad-**da** (*hadiyad) ma CALI baa keenáy* ?
         present-DET   QM Cali FM bring.PST.RED
         'As for the present, did CALI bring it?'

      b. *Ma CALI baa hadiyad (*$^?$hadiyad**da**) keenáy?*
         'Did CALI bring a present?'

As is shown, left-hand Topics (4a) are not included in the scope of the QM *ma*, they must be [+definite] and obtain an 'Aboutness' role. 'Internal' Topics on the other hand, are interpreted as background information that is

part of the question (the existence of a 'present' in (4b) is evidently 'given' in the discourse) and, as such, should be indefinite (definiteness is not excluded by informants, but considered as very marginal).

In wh-questions as well, it is clear that left-hand Topics are used to *propose* or *introduce* "what the sentence is about" (cf. (5A)). In the relevant answer, on the other hand, speakers would normally reproduce the Topic in a right-hand position (for continuity, cf. (5Ba)) and exclude an internal collocation, independently of the presence of clitic resumption (the symbol "#" indicates the inappropriateness of sentence (5Bb)): [11]

(5)   A: **Cali** *muxuu*   *sameeyay?*
           Cali QM.thing.3SGM do.PST.3SGM
           'As for Cali, what did he do?'

      B: a.   *MARYAM buu dilay,* **Cali**
                'Cali beat MARYAM.'
          b.   *#MARYAM baa/buu* **Cali** *dilay*

In this paper, further evidence will be provided in this direction, based on information structure from a discourse-intonation perspective.

3. Different types of Topics in Somali

This research is based on a corpus of semi-spontaneous conversations[12] (ca. 20 minutes) among three native speakers of Somali (Moqadishu and Northern variety), all men whose age ranges between 35 and 60. The acoustic analysis has been developed using the *WinpitchPro* program (1996–2004, version 1.60; cf. Martin 1978).

On a total number of about 250 utterances, we have analysed 136 Topic constituents, whose position in the sentence is indicated in (6):

(6)   LEFT-HAND TOPICS: 84
      INTERNAL TOPICS: 26
      RIGHT-HAND TOPICS: 26

Interestingly, we found only six cases of multiple realizations, all concerning the co-occurrence of *two* Topics located in the left periphery of the sentence. This means that, though Topics are very frequent in Somali, speakers prefer not to overload the sentence with more than two per sentence,[13] especially using overt DPs to shift the current theme (as is shown by the majority of

left-hand Topics) and leaving the realization of background information to clitic pronouns in the VC.[14]

As for their intonational properties, Topics show specific contours depending on their position, as expected. The relevant facts are summed up in Table 1 below and considered in details in the following sections.

Table 1.

	Left-hand Topics		**Internal Topics**	**Right-hand Topics**	
tonal event	rising tone & independent prosodic unit	low tone	prosodically integrated in the sentence	low tone	low tone & independent prosodic unit

3.1. Left-hand Topics

When a DP is realized in the left periphery of the sentence, it can be associated with two tonal events: either it is marked by a rising contour or it is completely low-toned.

Text analysis shows that the rising tone is definitely related to the Aboutness-shift function (cf. §2.1): the relevant DP is proposed as the most prominent referent in the discourse and represents what the following sentence is about. Consider for instance the dialogue in (7) and Figure 2. While speaker A does not propose any topic, speaker B chooses *Cali* for the Aboutness role, which is clearly signalled by its intonational contour (the sentence given in the Figure is underlined in the text):

(7)   A: *War   hadal   Axmedow   lambarka   kowaad ka hadal*
          EXCL speak.IMP Axmed.VOC number.DET first.GEN of speak.IMP
          'Come on Axmed, tell me about the first picture'

   B: **Cali$_k$**   *in-uu$_k$*   *CAJIIN QASAYAA*   *la*
      Cali.NOM that-3SGM pasta make.3SGM.DEP.FM IMPERS
      moodaa
      seem.PRES.3SGM
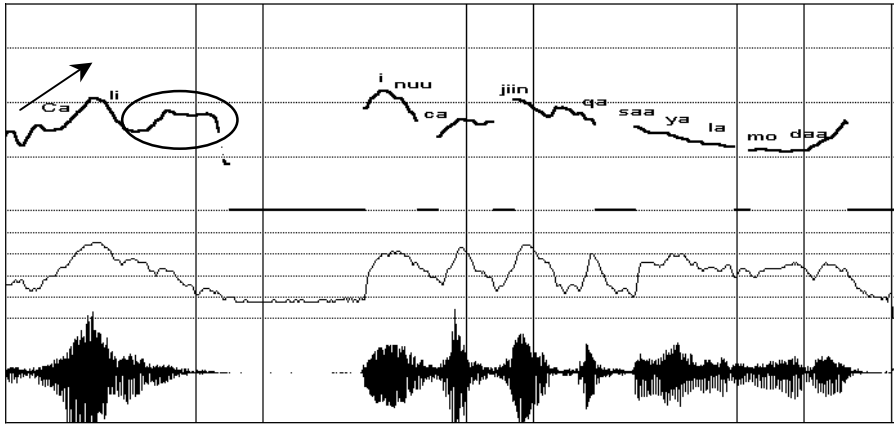   'It seems that Cali, he is making pasta'

Figure 2.

As we can see, *Cali* is a rising Topic (like *io* in Figure 1) and forms an independent prosodic domain with respect to the rest of the sentence (which is new information, in the scope of the FM *waxaa*[15]). Also notice that after the fall on the post-tonic vowel of *Cali* a new rise appears that has no correspondence with the wave form. This is due to the presence of a *tone*, which is used in Somali to mark NOM Case in the absence of determiners (which are morphologically marked).[16] It is therefore clear that the Topic *Cali* is connected with a subject position in the sentence (i.e., the SCL *uu*), transferring the relevant Case. This causes a 'reduplication' of the rising contour.

   On the other hand, when a left-hand Topic is not realized to propose a shift, but simply to repeat a previously introduced Topic for the sake of continuity, it is marked by a low-tone, as is shown in Figure 3:

(8) A: *Maryan ma Axmed bay   u baaqaysaa   mise   Cali*?
         Maryan QM Axmed FM.3SGF to give a sign.PRES.3SGF or rather Cali
         'Is Maryan giving a sign to Axmed or to Cali?'

     B: *Maryan Cali u baaqi   mayso   **Cali***
         Maryan Cali to give a sign NEG.PRES.3SGF Cali.NOM

        CUNTuu   cunayaa
         food.DET.FM.3SGM eat.PRES.RED

        'Maryan is not giving a sign to Cali, Cali is eating his FOOD'
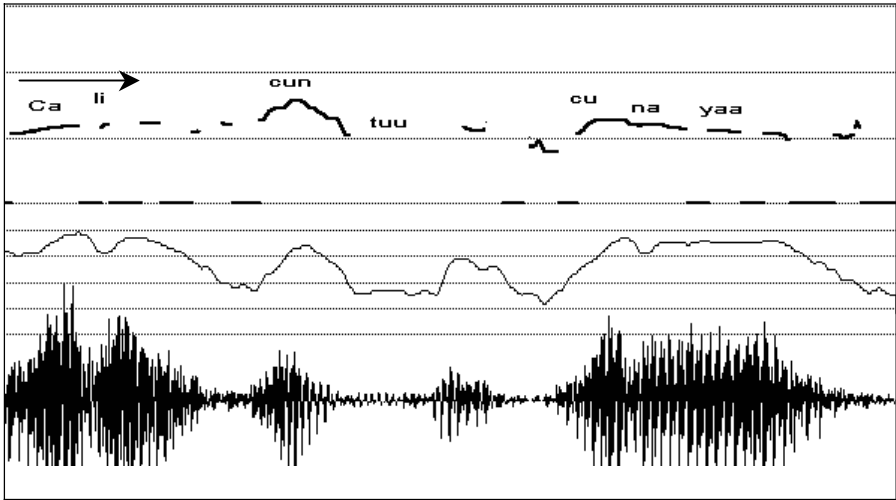
Figure 3.

As we can see, *Cali* is not (intonationally) prominent in (8B), though located in the left periphery of the sentence (like the Familiar Topic *inglese* in Figure 1).[17] This is evidence that the presence of a rising contour on the left-hand Topic *Cali* in (7) is not a 'physiological' consequence of its location: Topics are marked as high or low independent of their position. What counts is their function in the discourse, as expected in the present approach.

3.2. Internal Topics

When a Topic is realized within the VC (i.e., between the subject clitic and the clitic cluster [prepositional particle+object clitic] preceding the verb), it is always integrated in the prosodic domain containing the VC itself.

In recent analyses Frascarelli and Puglielli (2007a) have shown that the VC in Somali is characterized by an initial pitch followed by a downgrading contour[18] and, in the absence of an internal Topic, this pitch marks the clitic cluster preceding the verb. On the other hand, when an internal Topic is present, it is marked by the relevant pitch and the rest of the sentence follows with a downgrading contour, without either pauses or F0 resetting. This is shown by *miiska* in Figure 4 below.

(9)   *waxaan arkaa   <u>in   cuntad-ii ay   hayeen</u>*
      FM.1SG see.1SG that food-AN SCL3PL have.PST.3PL.DEP

      <u>*ay   **miis-ka**   la   yimaadeen*</u>
      SCL.3PL table-DET with come.PST.3PL.DEP

      'I see that they brought to the table the food they had.'
      [lit.: 'what I see (is) that the food they had, they went to the table with it]
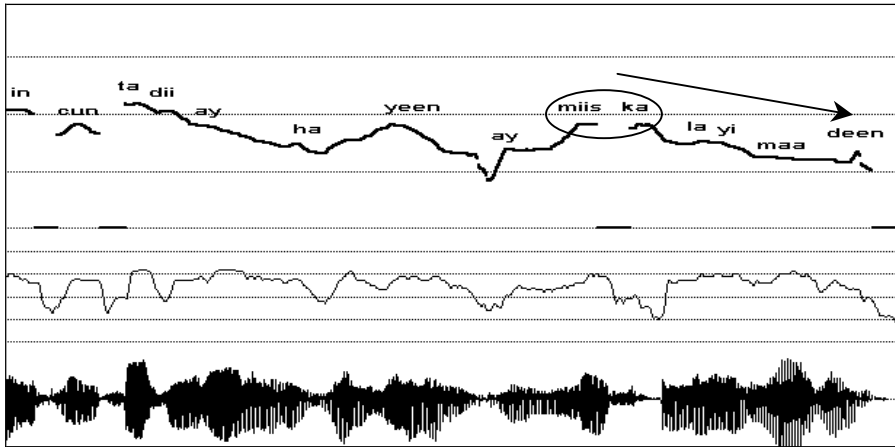

Figure 4.

It is clear that internal Topics do not form an independent prosodic unit and, in a syntax-phonology perspective, this means that they cannot be considered as extrasentential constituents (since they are included in the Intonational Phrase containing the rest of the sentence; cf. Frascarelli 2000). This leads us to conclude that VC-internal DPs are not 'Topics proper'.

   Further evidence in this direction is given by the fact they are included in the scope of negation (which excludes Topics by definition). Consider the following sentence and the relevant Figure:

(10) *Maryan **Cali** u baaqi   mayso*
      Maryan Cali to give a sign NEG.PRES.3SGF
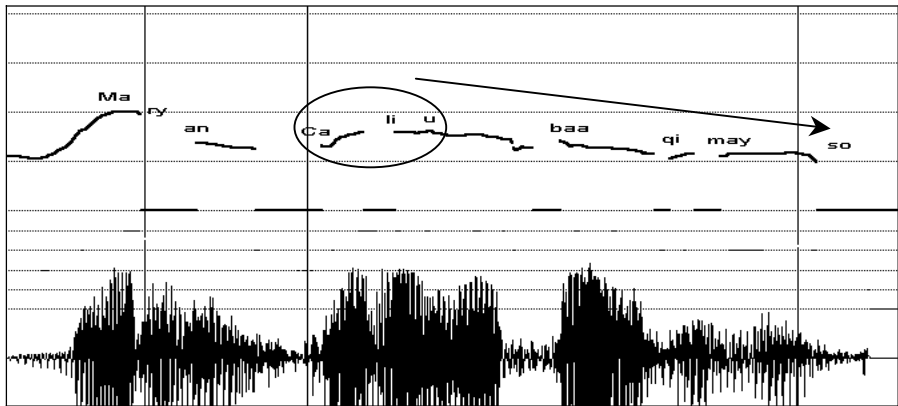   'As for Maryan, she is not giving a sign to Cali'

Figure 5.

As we can see, after the Aboutness-shift Topic (clearly marked by a rise and followed by a prosodic boundary), the Comment follows with its typical downgrading contour, having the internal Topic *Cali* as its first element.

Intonational properties thus show that internal Topics cannot be part of the C-domain. Furthermore, since DPs cannot be inserted as arguments in polysynthetic languages, we must exclude that these elements are merged in the VP (cf. Chomsky 2001). Moreover, it is impossible to realize as internal Topics either adverbial DPs (like *shalay* 'yesterday') or any type of 'circumstantial' information – hence, we must also exclude the possibility to analyze these constituents as merged in the Spec of some functional projection in the I-domain concerning tense, aspect, mood and so on (following Cinque's 1999 proposal). The only possibility left is to consider internal Topics as adjuncts to the VP (an option that is still admitted in the Minimalist framework, cf. Chomsky 1995) or – following a kaynian approach – we might assume the existence of additional projections in the I-domain, hosting non-argument DPs with different syntactic functions (benefactive, locative, comitative, instrumental and so on).[19] In this line of analysis, internal 'Topics' can be considered as non-argument, non-extrasentential constituents which, being merged in the I-domain, are somehow interpreted as part of new information. This is the explanation we assume for the moment. Further research is of course needed to fully understand their formal and semantic properties.

3.3. Right-hand Topics

As is shown in Table 1, the intonation of right-hand Topics shows two variants: either (a) they are simply low-toned or (b) they form independent prosodic units. The two contours correspond to different functions in the discourse. Let us start with the first option.

In the following question the speaker proposes *Cali* as the Aboutness-shift Topic and asks a question consisting of a comparison between *Cali* and the 'teacher':

(11) *Cali miyuu   ka dheeryahay   **macallin-ka**?*
        Cali QM.SCL.3SGM of be tall.PRES. 3SGM teacher-DET
        'As for Cali, is he taller than the teacher?'

As is clear from the presence of a definite article, the relevant teacher must have been mentioned in some previous moment. It is, therefore, a familiar element. However, since other referents had been also introduced and third person object clitics are null in Somali (cf. note 9), the speaker prefers to repeat it as a right-hand Topic, for the sake of continuity and to secure a correct interpretation. As a result, this constituent is produced after the (downgrading) sentential curve has reached its lowest point and its prosodic domain appears rather flat (like Familiar Topics in the left periphery of the sentence, cf. §3.1 and Figure 3), even though no major break can be noticed before it:
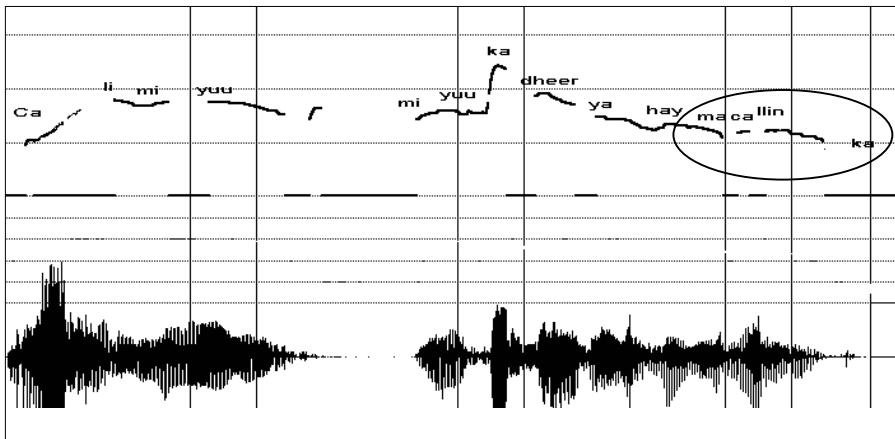

Figure 6.

In the second option, right-hand Topics are low-toned as well, but they are distinguished from the previous case for the presence of a strong prosodic break (showing that they form an independent Intonational Phrase; cf. Figure 7 below). Intonational diversity is related with a different pragmatic function, which is made clear in the following text:

(12) *Cali Maryan way*   *Ø-u*   *egtahay,*   *waa*
      Cali Maryan DECL.3SGF OCL.3SG-to be similar.PRES.3SGF DECL

      hooyadiis   *waayo* […] *wejigoodaa*   *is-ku*   *eg*
      mother.POSS.3SG because [...] face.POSS.3PL.FM RIFL-to be similar.RED

      waa   *inankeed-ii*   *marka AAD   IYO (AAD) bay*   *is-ku*
      DECL son.POSS.3SG-AN so   much and much FM.3SGF RIFL-to

      weji egyihiin,   ***Cali iyo*   *hooyadiis***
      face be similar.PRES.3PL Cali and mother.POSS.3SG

      'As for Cali, Maryam looks like him, she is his mother because their faces are very similar, he is her son, so they look like each other a lot, Cali and his mother'

Undoubtedly, the right-hand Topic 'Cali and his mother' is not needed to guarantee interpretation: *Cali* was introduced at the beginning as the Aboutness-shift Topic and both referents assuredly represent continuing Topics throughout the whole piece of conversation. Their repetition at the end of the sentence thus serves as a typical 'afterthought', that is to say, a way to repeat the main Topic providing a 'circular' closure to the relevant utterance.
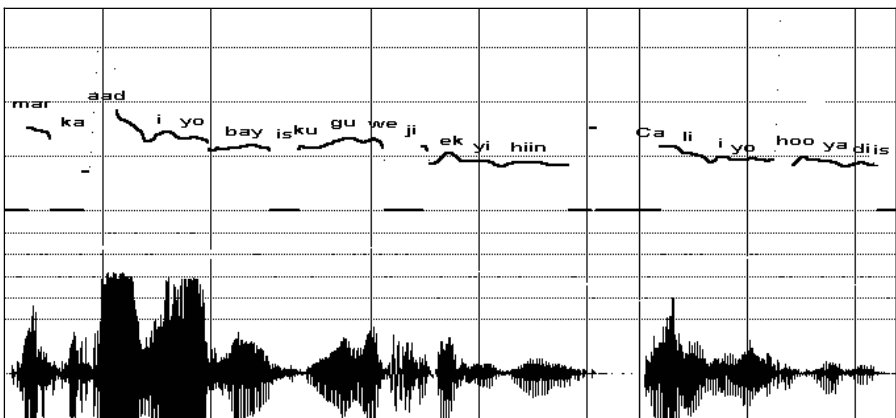

Figure 7.

3.4. Multiple Topics

After the examination of the different types of Topics in Somali, which proved the existence of a systematic correlation between formal properties and pragmatic functions, let us now consider the case of multiple realizations.

As already mentioned (cf. § 3), multiple Topics constructions are not very frequent in Somali (like in other languages). Nevertheless, the few data we can consider completely confirm the generalization (hence, the hierarchy) argued for in F&H (2007), namely, rising (Aboutnees-shift) Topics precede low-toned (Familiar) Topics. Consider the following example and Figure 8:

(13) *aniga   fandhaal i-ma   horyaal*
       PRO.S.1SG.ABS spoon   OCL.1SG-NEG be in front.PRES.3SGM.NEG
       'I cannot see any spoon'
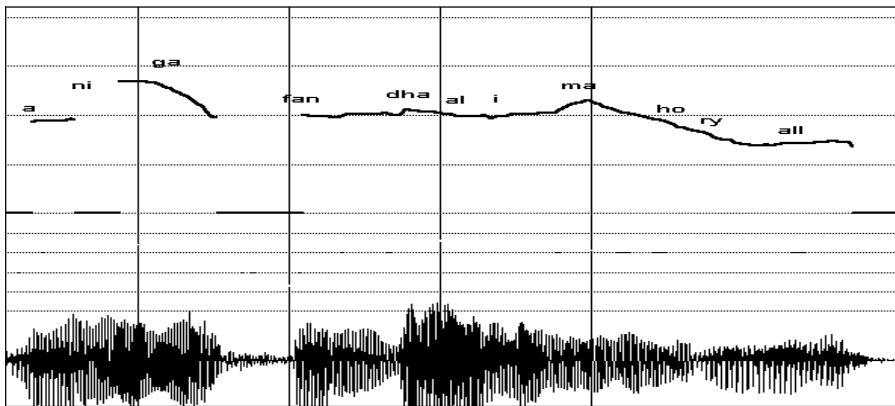   [lit: 'As far as I am concerned, no spoon is in front of me']

Figure 8.

Figure 8 shows that *aniga* forms an independent prosodic domain, while *fandhaal* marks a flat contour without breaks before the Comment. Hence, *aniga* is an Aboutness-shift Topic while *fandhaal* – like *Cali* in Figure 3 – is a Familiar Topic, both located in the C-domain. Indeed, *fandhaal* cannot be considered as an internal Topic, since the initial pitch of the downgrading contour is aligned with *ima*, the clitic cluster that initiates the VC.

We could also find a sequence of two low-toned Topics in initial position. This was also expected: as is argued in F&H (2007), more than one

familiar constituent can be repeated in the same sentence for the sake of continuity (cf. note 3). Consider the following example:

(14) A: *Cali gacmihiisu*   *ma* JEEB-KA   *bay*
          Cali hand.POSS.3SG.DET.M QM pocket-DET FM.3PL

          u-gu-Ø   *jiraan?*
          for-in-OCL.3SGM stay.PRES.3PL

          'As for Cali, does he keep his hand in his pocket?'

      B: **Cali gacan** CALOSH-*uu*   *ku haystaa*
          Cali hand   stomach.DET-FM.3SGM on keep.PRES.3SGM
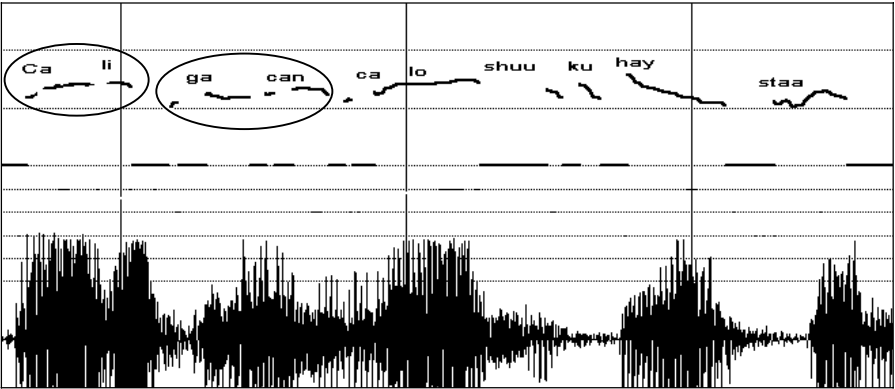   'Cali keeps his hand on the stomach'

Figure 9.

The realization of two destressed constituents at the beginning of the sentence shows, once more, that the intonation of Topics relies on information-structural requirements and is independent of other constraints (e.g., amount of air in the lungs, mechanisms of turn-taking and so on).

3.5. Rising Topics and Illocutionary Force

In recent analyses authors like Haegeman (2002), Puglielli and Frascarelli (2008) have suggested that the left periphery of embedded clauses does not have the same structure as matrix clauses (illustrated in (1)). In particular subordinates are assumed to have a 'reduced' C-domain, since they are not

directly connected with the illocutionary Force of the sentence (which is expressed in matrix clauses). In this line of analysis, Frascarelli (2007) proposes a connection between (information) Focus and Force: subordinate clauses lack the FocP projection and, for this reason, embedded C-domains cannot host a Focus constituent, even in a language showing the *extra situm* (i.e., 'fronted') strategy.

Similarly, a connection can be traced between the Aboutness-shift Topic and the illocutionary Force of the sentence since – as is argued in F&H (2007) – rising Topics are completely absent in subordinate clauses, while Familiar Topics are not subject to this restriction.

This asymmetry is confirmed by Somali data, in which embedded Topics are only marked by a low-toned event, as in the following case: [20]

(15) *CUNTA-da-naa   ay   Ø-la   sugayaan*
       food-DET-CONG.FM SCL.3PL OCL.3SG-with wait.PRES.3PL.DEP

   Axmed yare   in-tuu   ka imaanayo
   Axmed to be young.RED that-DET.SCL.3SGM from come.PRES.3SGM.DEP

   'And for the FOOD they wait for young Axmed, till he comes back'
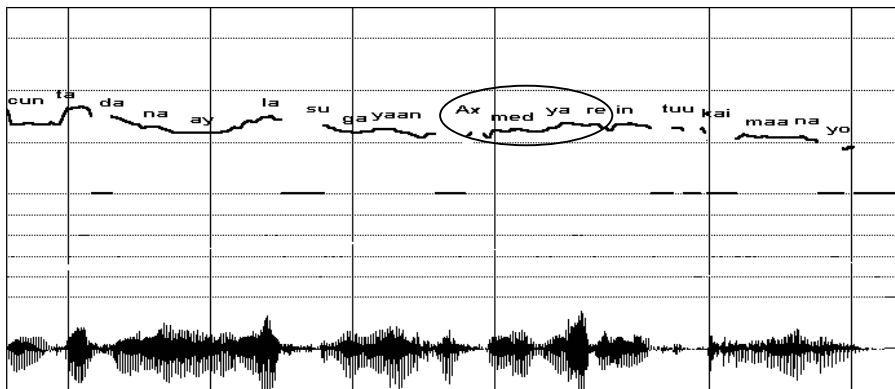

Figure 10.

Finally, it is interesting to notice that Familiar Topics in embedded C-domains can be located higher than the Complementizer (COMP) *in* ('that') while, according to Rizzi's (1997) system, COMPs are located in the Force head, which is higher than any Topic projection (cf. (1)). Consider the following sentence:

(16) *Cali* ADIGA   *baa lagaa*   *rabaa*   **su'aal**
     Cali PRO.2SG FM IMPERS.OCL2SG.from want.PRES.3SGM question

   in   aad   Axmed weyddiiso
   that SCL.2SG Axmed ask.PRES.2SG.DEP

   'Cali, I want you to ask a question to Axmed'
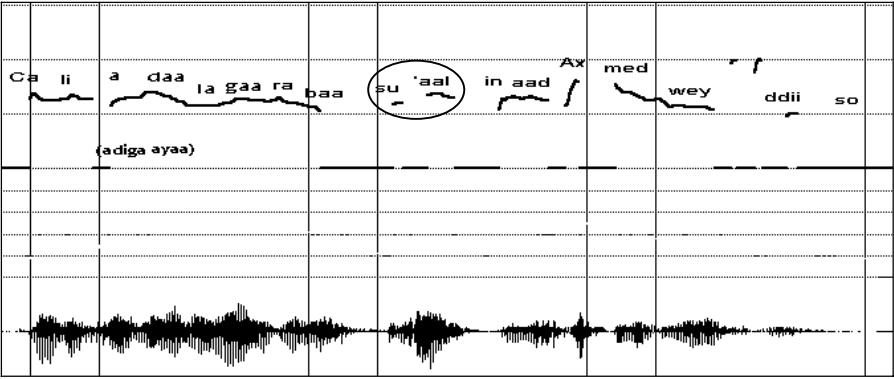   [lit.: 'Cali, it is wanted from you that you ask a question to Axmed']

Figure 11.

On the other hand, Familiar Topics in Somali are also (and more frequently) found in a post-COMP position. This apparent discrepancy, can be provided an explanation considering the etymology of COMPs like *in*, in a cross-linguistic perspective.

   In many languages clausal subordination clearly originates from nominalized constructions (cf., among others, Korniflt 1997 for Turkish, Ho-Min 1999 for Korean), in which the COMP element is in fact a preposition (like infinitival subordination in Romance languages, cf. also Kayne 1999) or the head of a relative clause. This is the case of Cushitic languages like Somali or Afar (cf. Bliese 1982) in which subordinators diachronically derive from generic NPs like 'thing', 'place', 'time' and so on (this is especially evident in adverbial clauses). In particular, the COMP *in* in Somali corresponds to a noun meaning 'thing, part' and can be still used today as such (i.e., it can be modified by determiners, possessives and adjectives; cf. Antinucci 1981).

   In this line of analysis, a complement clause like the one proposed in (16) derives from (and can be paraphrased as) 'I want from you *the thing* that you ask a question to Axmed'. It is thus feasible that speakers still maintain the actuality of this construction in their competence and that the grammaticalization of *in* as a COMP is not completed yet. Hence, when they

produce *in* in a lower position with respect to the Familiar Topic, this is not counterevidence to the hierarchy proposed in (1), but simply the sign that *in* is still considered as the nominal head of a relative clause (and not a subordinating element). This means that the relevant NP-head belongs to a relative DP and the Familiar Topic to its left periphery (on relative clauses in Somali, cf. Frascarelli and Puglielli 2005b).

Evidence for this analysis is provided, once more, by intonation: *in* is very often marked by a pitch, which is a typical feature of NP-heads in relative clauses (while COMPs are not prosodically prominent, cross-linguistically). Consider, in this respect, the realization of *in* in Figure 2, repeated below as Figure 12:

(17) *waxay*   *i-la*   *tahay*   ***Cali***$_k$ *in-uu*$_k$ *CAJIIN*
     FM.3SGF me-IMPERS seem.3SGF Cali.NOM that-3SGM pasta

     QASAYAA   *la*   *moodaa*
     make.3SGM.DEP IMPERS seem.PRES.3SGM

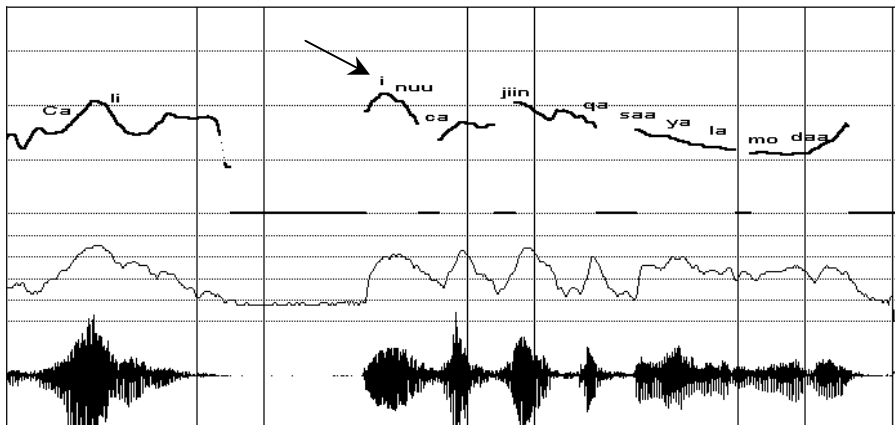   'It seems to me that Cali, he is making pasta, I think'

Figure 12.

4. Conclusions

As a result of this pioneering investigation, we can conclude that the interface analysis of Somali data fully confirms the validity of some crucial generalizations, which we consider as part of Universal Grammar for interpretation.

In line with cross-linguistic research, Somali has shown that the functional projection hosting Topic constituents is not simply a 'recursive' TopP and different positions must be assumed to account for their specific formal and discourse properties. In particular, tonal events signal in a *systematic* way the pragmatic functions of extrasentential constituents, which are encoded in a rigid hierarchy in the C-domain.

We have also seen that the formal properties of Topics are not defined on the basis of their pragmatic characterization as [±given] information, but on their discourse value and, in particular, on their *shifting* vs. *continuing* function.

Finally, it is important to remind that rising (i.e., newly proposed) Topics are only allowed in the left periphery of matrix clauses. This restriction, combined with the fact that information Focus is also excluded from embedded C-domains (Frascarelli 2007), can be plausibly interpreted in the light of a crucial connection between 'discourse new' information and the illocutionary Force of the sentence, which is encoded in matrix clauses. This means that a reduced structure must be posited for embedded C-domains.

Interface analysis thus plays a crucial role in the analysis of information structure, allows a deeper understanding of discourse phenomena and shows the advantages of an 'integrated' approach, which takes into consideration the complex interplay between pragmatics, phonology and the requirements imposed by the *core grammar* of languages.

Notes

1. The syntactic and pragmatic properties characterizing different types of Topics have been the subject of several works (cf., among others, Lambrecht 1994 and references given in this section), although no attempt, it would appear, has been made to connect intonational properties to syntactic structures. The originality of F&H's (2007) analysis rests exactly in their showing the existence of a *systematic correlation* between the formal properties of Topics and their function in the discourse, which is encoded in a strict hierarchy in the C-domain.
2. ForceP and FinP represent the two 'extremes' of the C-domain, in which illocutionary Force and Finiteness are encoded (cf. Rizzi 1997). The 'Ground Phrase' (GP) projection, on the other hand, indicates a functional projection in the C-domain that is targeted by presupposed information. It is, for instance, the landing site for IP (remnant) movement in right-Topic constructions (with the right-hand Topic merged in the FamP projection; cf. Frascarelli 2004a).
3. The asterisk after FamP indicates that this projection can be recursive. This possibility is excluded for Aboutness-shift and Contrastive Topics. Indeed, while we can newly propose or contrast only one Topic per sentence, more

than one constituent can be part of background information and repeated for continuity.

4. The description of intonational contours is based on Pierrehumbert's (1980) system – generally known as 'ToBI' – in which tonal events are described as sequences of low (L) and high (H) tones, which determine the shape of the F0 contour. In particular, pitch accents (marked with a 'star') are aligned with stressed vowels and render prominent the linguistic material with which they are associated.

5. As for the syntax-semantic interface, is important to notice that Topics are always realized through nominal (or nominalized) constituents (hence, DPs), which are connected with an argument or adjunct position for interpretation. For a cross-linguistic analysis of Topic-Comment and Focus-Presupposition structures in an interface perspective, cf. Puglielli and Frascarelli (2008).

6. Major evidence supporting polysynthesis in Somali lies in the *obligatoriness of clitics*. Object clitics, in particular, can never be omitted, independently of the presence of coindexed full DPs and of its being either a Focus or a Topic. This is shown respectively in (i) and (ii):

(i) a. *Cali ADIGA$_k$ buu ku$_k$ arkay.*
   Cali you FM-SCL3SG OCL2SG see.PST.3SGM
   'As for Cali, he saw YOU'
   b. **Cali ADIGA buu arkay.*

(ii) a. *(Adiga$_k$) CALI baa ku$_k$ arkay.*
   you Cali FM OCL2SG see.PST.3SGM
   '(As for you), it's CALI who saw you'
   b. **Adiga CALI baa arkay.*

Strong evidence in favour of a polysynthetic analysis is also provided by the *absence of non-finite clauses*. This restriction is a typical property of polysynthetic languages, owing to the fact that Subject agreement is obligatory to obtain argument visibility.

(iii) *Waxay doonaysaa in-ay bisha dambe*
   thing.DET.SCL3SGF want.PRES.SCL3SG that-SCL3SG month.DET next
   seexdo
   leave.SUBJ.3SG
   'She wants to leave next month'

7. Focus is indicated in capital letters, as is standard use.

8. The list of the abbreviations used in the glosses is the following:
ABS = absolute case, AN = anaphoric article, DECL = declarative (marker), DET = definite article, EXCL = exclamative particle, F feminine, FM = Focus Marker, GEN = genitive case, IMP = imperative, IMPERS = impersonal clitic, NOM = nominative case, M = masculine, OCL = object clitic, PL = plural, POSS = possessive, PRES = present, PROG = present progressive, PST = past tense, RED = reduced paradigm, QM = Question Marker, SCL = subject clitic, SG = singular, SUBJ = subjunctive, VOC = vocative case.

9. Note that the right-hand Topic *jaamacadda* is connected with a 'zero pronoun' governed by the prepositional particle *ku* in the VC. Indeed, 3rd person object clitics have no phonetic realization, a common feature in Cushitic languages (cf. Puglielli ed. 1981).

10. Focus must be obligatorily present in declarative sentences and its realization is a major feature of Somali syntax (for details, cf. Puglielli ed. 1981, Frascarelli and Puglielli 2005a).

11. As a matter of fact, internal 'Topics' are somehow part of new information (see discussion in section 3.2 below) and cannot be accepted in the relevant context.

12. Specifically, the speakers had been given a sequence of pictures to comment. Only one of them was aware that the relevant pictures were slightly different for each speaker and was appointed to lead the conversation. Change of topics, background elements and contrasts were thus expected.

13. This finding is consistent with cross-linguistic analysis. Based on the analysis of Italian corpora, Frascarelli (2000) also argues that multiple realizations are rather rare in spontaneous speech and sequences of three (or more) Topics preferably avoided (nonetheless, a profitable discussion on multiple Topics can be found in Mereu and Trecci's (2004) analysis, based on Bonvino's (2006) corpus).

14. In particular, when two Topics are realized in the left periphery of the sentence, the highest is always connected with the subject position (cf. § 3.6 below).

15. Differently from *baa,* the FM *waxaa* signals as new information the constituent located in postverbal position (cf. Svolacchia et al. 1995, Saeed 1987). Notice, in fact, that the focused VP in (7B), *cajiin qasayaa*, is marked by a pitch accent (H*) that forms a typical 'hat contour' (cf. Frascarelli 2004b) on the tonic vowel of *cajiin*.

16. Though important, the complex interaction between tone and intonation is beyond the scope of this paper and will not be treated in detail.

17. Indeed, the DP *Cali* is present already in the question (cf. (8A)) and realised as a Familiar Topic in the first occurrence of answer (8B) as well. It is therefore a background element, proposed as an Aboutness-shift Topic in a previous moment of the conversation.

18. This intonational property is in line with cross-linguistic research: in a number of languages the predicational part of the sentence (the 'Comment') is typically marked by a downgrading contour (cf., among others, Hayes and Lahiri 1991; D'Imperio 2002; Frascarelli 2004b).

19. In this respect, see the hierarchy proposed for non-argument PPs in Schweikert (2005), based on German data.

20. Though the English translation might lead to consider the DP *Axmed yare* as a Focus, this interpretation is excluded by Somali grammar. Indeed, Focus in Somali always precedes the VC and must be immediately followed by the Focus Marker *baa* (or its contracted form *-aa*, as in the relevant case). Hence, *cunta* ('the food') is the Focus in (15) and *Axmed yare* necessarily a Topic

(given the polysynthetic property, cf. section 2.2). Moreover, Somali excludes Focus in subordinate clauses (for details on the Topic/Focus structure in Somali, see Puglielli 1981; Svolacchia, Mereu and Puglielli 1995).

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Section 5

Some more aspects of information structure