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STRUCTURING AND SIGNALLING TOPIC MANAGEMENT

Angela Downing, JoAnne Neff, Marta Carretero,
Elena Martínez-Caro, Soledad Pérez de Ayala
Universidad Complutense de Madrid
Juana Marín
Universidad Nacional de Educación a Distancia
José Simón
Universidad de Alcalá

1. Introduction

The research reported under the above title represents the current state of work in progress within the research project *Topic Management in English and Spanish*[1]. In what has been an essentially collaborative undertaking by members of a team drawn from three universities in the Madrid area, the present taxonomy of topic management structure emerges from the empirical analysis of extracts from a corpus of naturally occurring conversations in English.

The article is organized as follows: section 1 situates the project within the current trends in Topic Management (TM) and outlines the global aims of the project; section 2 explains the material and methodology used; section 3 gives a brief explanation of the two major elements in TM; section 4 follows with a more detailed description of TM linguistic devices; section 5 deals with the units of discourse structure in TM; section 6 provides an overview of the taxonomy and concludes with a summary and an orientation to future research.

1.1 Approximations to Topic. Topic has been treated from two main perspectives, which Goutsos terms the *what* and the *how*; from the *what* perspective, topic is seen as a discrete element or unit, while from the *how* perspective it is viewed as an organizing frame (Goutsos 1997:2). By and large, these two types of approximation have been associated with sentence topic and discourse topic respectively.

Sentence topic has the longer history, and has been ascribed a variety of properties: as a structural element, in which it is a discrete sentence constituent, explicit and obligatory; as the point of departure of the message, coinciding with the first ideational element and tied to leftmost position of the clause; from a logical perspective, as 'aboutness', topic being identified with the referents or the main propositions mentioned. Topic has also been identified with presuppositions, and linked to participants' shared knowledge. As an informational category, topic (theme)

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has been identified with given information in information structure. Finally, topic has been related prototypically to the pragmatic properties of definiteness and focus of attention. Various treatments of topic have combined two or more of these attributes while rejecting others; for instance, for Halliday topic is a kind of theme (topical theme) which is at once a discrete and obligatory element that conflates with the first ideational element, occupies initial position in the clause of which it represents its 'point of departure', is that with which the clause is concerned but is a separate category from given information (see Goutsos op.cit. for a fuller summary.

The *how* perspective, adopted by the conversation analysts, social psychologists and others interested in the organization of discourse and its signaling, including Goutsos himself, is based on the sequentiality and linearity of discourse.

Our own approach also centers closely on the sequentiality of topic organization but also, and importantly, on the hierarchization of topics. With respect to the latter, we have at present limited our attention to two levels, which will be referred to as macro or global discourse topics and micro or local topics.

Global discourse topics (D-topics) are sequentially organized and represent a wide concern which may subsume the conceptual content of a wide stretch of discourse, while local topics are hierarchically structured under the 'umbrella' of the D-topic which unifies them (van Oosten 1985; van Dijk 1977; van Dijk and Kintsch 1983):

> ... a concept or a conceptual structure (a proposition) may become a discourse topic if it HIERARCHICALLY ORGANIZES the conceptual (propositional) structure of the sequence (van Dijk 1977:133-4)

Such a view implies a consideration of 'aboutness' in identifying such global and local topics. Ultimately, then, our work will provide an integrated approach, using both the *what* and the *how* perspectives, integrating the semantic with the pragmatic.

1.2 Aims. Our wider aim is to model the mechanics of TM in English and Spanish spoken discourse and to specify in machine-computable terms the TM strategies each language avails itself of. To this end, the successive aims of the project are threefold: 1) to set up a model for the analysis of TM devices and structures in spoken English discourse, concretely of topic introduction, closure and resumption; a later stage of the project will include topic shift, and an attempt to account for the development of topics within the global boundaries; 2) to tabulate the data gathered from the analysis in such a way as to enable easy retrieval by researchers and exportability to external applications such as wordprocessors, spreadsheets or statistical packages, and to create suitable tools for this purpose; 3) to construct a similar model for Spanish once the present model has been tested for viability on the English data. This more complete framework will make possible the description of the main differences in TM strategies between the two languages, and the linguistic devices most frequently used in the implementation of such strategies. Such a specification would serve as valuable

input to such activities as the automatic searching for key concepts, in addition to its obvious utility in the teaching of both languages, particularly to non-native learners, in such aspects as the comprehension and production of natural discourse. To this end a data-driven learning system has been devised that operates on textual samples, and is in the process of being tested.

2. Materials and Method.

Three surveys (face-to-face conversations) from *The London-Lund Corpus of Spoken English* (cf. Svartvik & Quirk, 1980) were submitted to an exhaustive empirical analysis to determine those linguistic devices and units of structure which appear to be relevant to topic introduction and topic closure. The three texts are described below in terms of the characteristics of their speakers:

S.1.1: 2 speakers: 2 male academics, age c. 44 (A) and 60 (B).
S.1.3: 3 speakers: 3 female undergraduates, ages c. 36 (A), 30 (b)
    and 36 (c).
S.1.5: 4 speakers: 3 female secretaries, ages c. 21 (A), 35 (C) and 21 (D);
    1 female academic, age c.25 (B).

With respect to the texts selected, the conversations were surreptitiously recorded with the exception of two speakers in S.1.3, b and c (lower-case letters corresponding to non-surreptitious speakers), whose role, however, is almost exclusively that of encouraging others to speak. The three selected texts amount to approximately 15,000 words, over 5,000 in each text.

Macro Discourse topics or topic sets were identified both in terms of the continuity of thematic content and of being, ideally, separated by means of clear conversational boundaries. Micro DTs were identified by their being subsumed thematically under a macro-discourse topic. Such a procedure facilitated the elimination of insertion sequences from the main topic flow. The linguistic devices and the relevant units of structure which emerged from the analysis are detailed in the following sections.

3. The Two Major Dimensions in TM

A scrutiny of the data leads us to visualize TM in English conversation as lying on two interacting and overlapping dimensions: the signaling and the structuring. They are organized as follows:

1) *The signaling dimension* is implemented by the linguistic devices crucial to TM in English conversation. These comprise the following: Signals; Topic Formulating Devices: Formulations and Formulators. The function of these devices is to establish macro and micro topic boundaries and to signpost important topic content.

2) *The structuring dimension* is implemented by the units of discourse structure pertinent to TM in English conversation, identified as Move sequences, Moves and Acts. The function of these units is to drive the topic forward, structuring the participants' contributions in the joint creation of topicality. The category of Move (Sinclair & Coulthard 1975; Francis & Hunston 1992; Tsui 1994) is adopted in order to deal with the issues of development and change in the direction of discourse topic. However, Moves in the above models of conversation analysis are set up to account for any change in the direction of a conversation, whether directly relevant to discourse topic or not. In our model, we consider only those Moves which have a direct incidence on topic development. Here we limit our analysis to those Moves which effect the opening or closing of macro discourse topics. The two dimensions are further outlined in the following sections.

4. TM Linguistic Devices

A concern with the boundaries that set off one macro-topic from another and in the ways they are marked is consonant with an emphasis on sequentiality. In this respect we would agree with Goutsos (1997:35) that "topic is not defined and identified as an a priori unit but is seen as the outcome of the marking of boundaries by the text producer and the decoding of boundaries by the text receiver." Nevertheless, we would emphasize that in conversation, unlike the expository texts which constitute Goutsos's database, the marking of boundaries is quite frequently unclear. Participants in a conversation must rely to a certain extent on the extraction of 'gist', and analysts must somehow account for this in their online segmenting of discourse. This aspect is, however, not dealt with in the present paper.

4.1. Topic Signals: Markers. Within our TM model, signals are devices whose main function is to help mark a boundary within the topic flow, without any explicit reference to or inclusion of the topic. Signals include Markers, Addressers (i.e. vocatives) and Formulaic expressions such as *Bless you!* and *Thank you very much*. The present study centres on the first type, Markers, which include words, phrases and expressions largely devoid of referential content, such as *yes* and its variant *yeah*, *I see*, *you see*, *well*, *you know*, *now* and *ehm*. Variously labelled in the literature as discourse markers, fillers, hedges or continuatives, markers do not generally by themselves indicate a definite direction that TM is taking; rather, they signal and accompany the Moves or Acts which more overtly carry the topic forward.

4.1.1. Functions of Markers. Markers, together with other signals, fulfil diverse functions, the nature of which depends crucially on their position within the tone unit and turn, and on the kind of move sequence they belong to. Their two major functions identified so far are those of signalling topic introduction and topic closure.

When signalling topic introduction, markers tend to coincide with a change of turn and to appear in initial position of a tone unit or a clause:

(1) [ə:m]. now what was the other thing that I wanted to ask you. is
    is it this year that [ə:] Nightingale goes (1-1, 236-239) [2]

Signaling of closure exhibits considerable variation. The rounding off of macro topics may be accomplished by a clustering of markers, including repetitions as in (2):

(2) B. I must watch the time Reynard
    A. * quite [m]*
    B * or I may miss the bank*
    A. * yes yes yes you must* (1-1, 1194-1208)

Conversely, the macro topic may not be terminated at all, but may drift to another topic, signaled by lesser degrees of marking. This difference between openings and closures may have to do with the fact that while opening a topic is obligatory, closing it is less so (cf Goutsos op.cit.).

4.1.2. Distribution of Markers. Evidence suggests that different variants of certain expressions appear to be used by speakers in marking different levels of discourse. Thus, different variants of [ə:m] have been found in the data, namely [əm] and [ə], together with various forms of [m], basically [mhm] and [hm]. Topicwise, it appears that [ə:m] and [əm] clearly mark an opening move at macro level, or a transitional move representing an aspect or perspective of a macro topic. By contrast, [m] has less relevance for topic transitions at a global level. Its function is more local, even though it does occur at topic introduction, in addition to its use in other contexts as a temporizer or delaying tactic.

The clusterings of markers at the boundaries that set off one DT from another. occur both at opening and closing move sequences, preponderantly in closures. Table 1 illustrates the range of markers in Openings and Closures.

4.1.3. Frequency of Markers. Some interesting preliminary results have emerged for the frequency of markers in opening and closing sequences in the texts analyzed. These frequencies are represented in Table 2 and Table 3 respectively. The most frequently used marker in opening sequences is [ə:m] and its variants, followed by *well*.

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[2]Prosodic symbols used in the examples (adapted from the richer transcription of the LL Corpus) include the following: *quite* = overlapping speech; . = very brief pause, - - = longer pause.

Table 1: Markers functioning in Topic Openings and Closures

Openings		Closures	
Single markers	Clusters	Single markers	Clusters
ə:m, əm, [ə:m] [ə] well m now	well ə:m well now ə:m.. ə:m ə:m now I mean you know əm you know I mean well now you see	yes yeah you see I see well m	yes yes yes yes m m m yeah I see I see yes yes exactly yes of course quite m ə:m well yes oh yes yes quite yes yes yes I see yes yes yeah well ə: hm quite so m m m yes quite

Table 2: Frequency of Markers functioning in Topic Introduction

	[ə:m],[əm] [ə:], [ə]	well	[m],[hm] , [mhm]	now	you know	I mean
S.1.1. S.1.3. S.1.5.	15 44.12 17 50 2 5.88	5 31.25 6 37.5 5 31.25	1 20 3 60 1 20	2 50 2 50	2	2
Total	34 100%	16 100%	5 100%	4 100%	2 100%	2 100%

In text 1-5 there is a notable lack of signals in opening sequences. The topic is frequently introduced solely by an eliciting (interrogative) Act. Such an introduction may be regarded as too abrupt in other conversational contexts where participants appear to be of unequal professional rank (as in 1-1). In this respect, our data suggest that there is a wide range of factors which may condition the use of these markers in discourse topic organization: textual formality, power relations and the professional rank of speakers, the delicate or private nature of the issue being discussed and, ultimately, individual linguistic habits of the speakers, as part of their idiolect.

In Topic Closures the most frequently used marker is *yes* (or its variant *yeah*),

followed by [m] or [hm]. There is a notable difference in frequency among the texts, 1-1 exhibiting the highest frequency of use of markers. In this text the two speakers are university academics, one of whom appears to have a hidden agenda and perhaps a higher professional rank. These features may explain the difficulty this speaker appears to have in closing off topics and in approaching the real issue, that of getting his colleague to assess academic papers during the summer recess. It is worth mentioning in this respect that the macro Topic of a considerable stretch of the 1-1 text is perceived by both the addressee and the analyst as a macro speech act of request, never explicitly put into words as such.

Table 3: Frequency of Markers functioning in Topic Closure

	yes,yeah	[m][hm]	I see	well	quite	you see	[ə:m],[ə:]
S.1.1. S.1.3. S.1.5.	28 73.68 3 7.89 7 18.42	6 54.55 5 45.45	3 75 1 25	2 66.67 1 33.33	3 100	2 100	2 100
Total	38 100%	11 100%	4 100%	3 100%	3 100%	2 100%	2 100%

4.2. Topic Formulating Devices: Formulations and Formulators. Unlike signals, TFDs have an explicit reference to the topic. The two categories identified here are Formulations and Formulators.

4.2.1. Formulations. Heritage & Watson (1979:149) have defined the notion of formulation as a gloss on talk, concretely:

...a gloss on "what we are talking about (or have talked about) thus far" ... The making of formulations, then, is a built-in part of rendering conversations preservable and reportable, and it is in this sense that formulations may be said to »fix» what will have turned out to be a (the)topic."

Formulations are utterances expressing macropropositions which explicitly capture the DT. They are the most explicit Topic Formulating device and thus have an essential role in managing topic in conversation. They are typically retrospective, as in (3), in which a speaker was telling a story when a new participant enters:

(3) A - - I'm just explaining how I acquired a sewing-machine by foul means . by
         writing an instruction booklet for one and saying I must have this if I'm going
         to write the booklet (1-3,169-174)

4.2.2. Topic Formulators. Formulators are devices for opening, closing or
changing topic, by explicitly signalling to the interlocutor that a new direction with
respect to topic is proposed. They tend to be prospective. We may identify three
structural subtypes:
a. F1: This type consists of Formulating Phrase + Topic Element. The utterance
contains a phrase conventionally indicating the speaker's goal with regard to topic,
plus an element which makes reference to the conceptual content of the topic of
discourse.

(4) A may I ask what goes into that paper now (1-1, 9-10)

(5) B let me tell you a story (1-1, 446)

b. F2: This consists of Topical Element only, typically a nomination of topic:

(6) C I must have an immigrant's visa (1.5, 1209)

(7) b - - how did you get on at your interview (1-3, 215)

c. F3: This type consists of Formulating Phrase only and does not include any word
or element bearing any semantic reference to the Topic itself. It typically involves
some kind of metadiscoursal comment, signaling that some change is taking or is
going to take place: opening or closing a topic, or transition to another topic.

(8) A one other thing Sam (1-1, 64)

(9) B yes of course but that's the tale (1.5, 249-251)

Very often we find a cumulative effect, by the use of a series of discourse markers
plus the formulator in the same tone unit, or in a sequence of tone units.

(10)   A [ə:m] you're very kind old Sam -- bless you well that finishes that (1.1,

234-36)

5. Units of Discourse Structure in Topic Management

The units of discourse which structure TM in conversation are the following: Move sequences, Moves and Acts. A hierarchical relationship holds between these classes of unit in that Move sequences are made up of Moves, and Moves can be seen as comprising a main Act together with further supporting and optional Acts.

5.1. Topic Move Sequences. A topic Move sequence comprises all the stretch of discourse which has a macro function in terms of TM. This study considers only Opening and Closing Moves and Insertion sequences. The key Moves are defined as follows:
1. *Opening Move sequences* open up a new topic.
2. *Closing Move sequences* put an end to a topic.

It is also necessary to account for *Insertion sequences*, even though they do not drive the topic forward; rather, they momentarily interrupt the topic flow. They are subdivided into two types:

(i) asides, which consist of comments on immediately previous or prospective information: *this is just between ourselves;*

(ii) action insertion sequences, in which the speaker acts or directs the addressee or hearer to act: *wait a minute; do you mind if I smoke?*

Despite the fact that they do not contribute directly to TM, they are, nevertheless, important for our analysis for two reasons: a) they must not be considered local topics, since they are set off from the main topic both by semantic content and, frequently, by boundary signals. They do not, therefore, belong within the hierarchical semantic structure set up by a macro topic. As a consequence of this separation, b) insertion sequences may trigger a reinitiation of an Opening Move which starts up a new macro topic, as in example (11):

(11)	initiation	A ə:m Delaney a Canadian who graduated
	insertion sequence	B where did you put those things just one let me put this in my bag or I'll walk away without it
	reinitiation	A ə:m - - Delaney's the Canadian student remember (1-1, 65-71)

Topic Move sequences are composed of Moves which occur in a certain order. Typical full sequences consist of the following Moves:

(i) In Opening Move sequences: Initiation, Response, Consolidation.

(ii) In Closing Move sequences: Initiating closure, Response, Closure.

As the previous example illustrates, certain Moves within the sequence may reoccur; that is, there is possible recursion within the sequence. Likewise, full completion of the sequence is not guaranteed; a speaker may fail to respond, or the response may trigger an abrupt topic switch rather than contribute to the acknowledgment and consolidation of the proposed macro topic. The initiating or closing Move sequence would then be aborted.

5.2. Topic Moves in Opening Move Sequences.

5.2.1 Initiation. These moves belong to one of two types: *informative* and *eliciting*, and tend to contain topic formulating devices.
Informative initiations are those that provide information, such as:

(12)   F3   A but this is something I want
        F2   one day I want a room where a sewing machine stands up
                permanently (1.3, 204-207)

Eliciting initiations are those which ask questions:

(13)   F2   b - - how did you get on at your interview (1.3, 215)

Initiations may be followed by a re-initiation, as in (11) above, or by another related Move, as in (14):

(14)   initiation F2   A do you sew a lot
        comment   I used to sew a lot when...(1.3, 67-69)

5.2.2 Response. Responses to initiations tend to be brief, and are frequently realized by signals, such as [*m*], *yes*, *no*, *quite*..., as in (15)

(15)   reinitiation   A Delaney's the Canadian student, remember
        response   B mh/m (1-1, 71-73)

5.2.3 Consolidation. Following a Response, a Consolidating Move establishes a Topic proposed in the Initiating Move. The consolidation, which does not usually contain a Formulation, is observed to be uttered by the initiator if the initiation is informative, and by the responder if the initiation is eliciting.

5.3. Topic Moves in Closing Move Sequences. Closing Move sequences are more varied than Opening Move sequences in two respects: i) the number of Moves involved, and ii) the location of Topic Formulating Devices. Thus, firstly, Closures may be realized by one single Closure move, instead of the three-part structure observed in many Openings. Secondly, Closing Move sequences are heterogeneous with respect to the places at which TFDs occur within the structure, in contrast to the invariable placement of such devices in the Initiating Move of an Opening sequence.

5.4. Acts. These are the smallest elements in the units of discourse; their purpose is to realize the Moves. For example, a Topic Initiating Move in an Opening sequence may be carried out by a question, or by a statement. The analysis of Acts can also indicate that a topic is supported, leading to agreement and closure, or, on the contrary, that the topic has been challenged, thereby necessitating further negotiation. Thus, the study of Acts can help reveal the connection between global and local topic levels.

6. Conclusions

The present taxonomy shows how the initiation and closure of macro topics are carried out in face-to-face conversation in English. Two interacting dimensions are involved: signaling and structuring. That of signaling is represented by signals and topic formulating devices (TFDs), that of discourse structuring, by categories identified as Move sequences, Moves and Acts.

An initial analysis of Opening and Closing topic sequences across a sample of texts reveals certain differences in these two key areas of TM. Opening sequences show greater uniformity both in the fulfilment of the potential three-part Move sequence, and in the signaling of the topic opening. Closures are more heterogeneous, ranging from recursive Moves accompanied by clusters of signals to one Move plus or minus a signal. This greater variety of closing sequences may have to do with the obligatory nature of topic introduction. Closure, by contrast, is optional in that speakers may introduce a new topic without necessarily winding up the current topic.

The distribution of markers was also found to differ between macro topic openings and closings, both as regards individual markers and in clusters, as well as between texts, with interpersonal factors influencing in the latter. Furthermore, markers together with TFDs frequently make for a cumulative effect in signaling strategies in TM.

On the structuring dimension, a revision of the relevance of the category Act to TM is contemplated, before undertaking work on the Spanish corpus.

Table 4 illustrates an analysis of TM strategies including both discourse units and linguistic devices.

Table 4: Analysis of an Opening Move Sequence. (1-1, A237-B240)

Move Sequence	Move	Linguistic Device	Act	Expression
Opening		marker A237		[ə:m] now
		F3 A238		what was the other thing I wanted to ask you
	Initiating A239		Elicitation	is it this year that Nightingale goes
		marker B240		[ə:]
	Response		Inform.	no, next year

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