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TOPIC SIGNALING METADISCOURSE DEVICES IN THE TUNISIAN LECTURE CORPUS

Abstract

Identifying main topics is a major academic listening skill that students should develop to efficiently follow and learn from lectures. They should construct a coherent cognitive map of the lecture that they can use to understand and discuss its content. This paper examines topic signaling metadiscourse devices (MDs) in the Tunisian Lecture Corpus (TLC), a corpus of academic lectures delivered in English in the disciplines of Applied Linguistics, Cultural Studies, and Literature. The approach adopted was both qualitative and quantitative relying on the manual coding of the data following three major stages: the design of topic hierarchies, the coding of discourse structuring phases, and the identification of MDs used to signal topics. One finding was the variety of MDs used to introduce topics in TLC. Phenomena related to the use of these devices were also reported and reflected an audience-oriented approach. Potential issues uncovered included absence and ambiguity of marking as well as embedding. These findings are discussed particularly with reference to their pedagogical implications, as the data and its analysis can be used to design professional development programs for lecturers and academic materials to support English majors when attending lectures in Tunisia.

Key words

academic lectures, metadiscourse, topic signaling, spoken corpus, Tunisia.

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1. BACKGROUND

Students in Tunisia experience challenges when attending lectures in English. They often fail to identify major lecture topics and to distinguish main from minor points. Similarly, lecturers in Tunisia often complain that students are unable to summarize main ideas discussed in class. Research however demonstrated that an important academic skill that students need to develop is the identification of main and important points in a lecture; a skill that is necessary to build a hierarchy of major and minor points (Field, 2011). One means of developing this skill is to notice the topic signaling metadiscourse devices (MDs) that the lecturer uses.

Also referred to as macro-markers, topic signaling MDs are "explicit [metadiscourse] expressions of the planning of the lecture information" (Chaudron & Richards, 1986: 123) operating as cohesive devices of high-level information (DeCarrico & Nattinger, 1988). There is agreement over their role to ease the cognitive load imparted upon the audience when following a long stretch of spoken discourse. They thus serve to guide students towards the organization of the lecture, displaying relationships between ideas, and marking their relative importance (Jung, 2003). Experimental studies such as Benson (1989) and Chaudron and Richards (1986) demonstrated how students' attention heightened when lecturers used topic signaling MDs. It is not surprising therefore that the analysis of topic signaling as a metadiscursive function has received some attention in research on spoken discourse. Riou (2017: 88), for example, investigated the way topics are transitioned in conversations leading to "a composite picture" where verbal and prosodic cues are used. Swales and Malckzewski (2001) examined this function in the Michigan Corpus of Academic Spoken English (MICASE) as a way of shedding light on the way lecturers manage discourse. Bernad-Mechó (2017) adopted a multimodal interaction analysis approach to investigate the way topics were introduced in a lecture. His study illustrates how the metadiscursive resources used for this function are accompanied by other resources including body language such as gestures and gaze, and paralinguistic features, particularly intonation.

In the literature on academic lectures, some issues related to the topic signaling function were identified. Martinez, Adolphs, and Carter (2013: 320) referred to one of them as "the haystacks" defined as "a kind of apparent train of thought building to and culminating in a main point." When using the haystack strategy, the authors argue that students may not even notice that a new topic or key term has been introduced. Another issue was raised by Dafouz and Núñez Perucha (2010) who found that some topic signaling MDs were absent or ambiguous in their corpus of lectures by Spanish lecturers. The authors maintained that such issues may lead to a negative perception of lecturers as "disorganized, […] less credible and reliable" (2010: 218). Absence of signaling was also reported in studies involving non-native lecturers whether in native or non-native contexts. Williams (1992), for instance, argued that international teaching

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assistants in US universities should use more overt devices especially in cases where they experience issues related to pronunciation and accuracy. In Content and Language Integrated Learning (CLIL) tertiary settings, Dafouz and Núñez Perucha (2010) observed that Spanish lecturers tend to lack an explicit signaling of phases and phase shifts. In another study, they found that phases may not be adequately signaled in engineering lectures delivered by Spanish lecturers (Núñez Perucha & Dafouz, 2007). A phase is defined as a "strand which comments on the discourse itself" (Young, 1994: 166). The topic signaling function is realized in the discourse structuring phase; a macro-discourse strategy enacted in a rhetorical space where the lecture can frame the lecture content (Young, 1994).

Against this backdrop, the study sets as its objectives to investigate the way lecturers in the TLC introduce major topics and sub-topics in their lectures as well as to identify any potential issues arising in relation to this metadiscursive function. Two research questions are thus posited:

1. How are topics introduced in the TLC?
2. Are there any issues that impede students' identification of those topics?

The significance of this endeavor is threefold. First, this study is, to our knowledge, the first on academic lectures in the Tunisian context, although some research on classroom discourse has already been conducted in this context (see Abdesslem, 1987; Touati, 2004). This type of descriptive and explanatory research is essential before any experimental studies could be set up to examine the effect that the different topic signaling MDs have on the students. Second, this research will yield data that could be exploited to design professional development programs for lecturers the aim of which is to raise awareness of their lecturing practices. Third, academic support could be provided for students in Tunisia using this data. With such support, students can develop skills in identifying major topics in the lectures they are attending in their context. Awareness of the potential issues that may be arising in this task can also be raised, discussed, and addressed.

2. CORPUS

To answer the research questions above, the Tunisian Lecture Corpus (TLC) was collected. TLC is a non-native, specialized, and multimodal corpus of academic lectures collected in two tertiary institutions in Tunisia where English programs are delivered encompassing both the teaching of English language skills and content subjects in English. Thus, the context of the study can be described as a CLIL environment at the tertiary level. This is because students are expected to develop their content knowledge of the subject matter delivered in English while at the same time improve their English language proficiency.

Thirteen lecturers in three disciplines: Applied Linguistics, Cultural Studies, and Literature gave a signed consent for their lectures to be recorded and one participant consented to be audio recorded only. TLC thus is made up of twelve video recordings and one audio recording. Consent was sought via two research forms: a research information sheet and a consent form sheet. The research information sheet presented participants with the objectives of the research as well as with confidentiality statements. The consent form described terms for the disclosure of the data collected for research purposes. Under this procedure, seven out of the thirteen participants granted access to all the data recorded, including videos and audio recordings as well as transcripts. Four participants granted access to their data except for the video recordings, and two participants gave consent to share transcripts only. TLC comprises over one hundred thousand words. Transcription included as many relevant contextual elements as possible and three passes were implemented to guarantee quality and consistency.

Most participants had a bilingual education where Arabic and French are used to teach content subjects at primary and secondary education. Participants' university teaching experience varied from two to nineteen years. The lectures took place in classrooms rather than lecture halls, with an average of twenty students per class. Their duration ranged from one to two hours depending on the subject, but sometimes also on individual department practices. Example of courses from which lectures were recorded are: "Teaching English as a Foreign Language", "Anglophone Cultural Studies (Canada)", and "Literature Survey". Nine out of twelve course descriptions were available and were collected as part of TLC. These were considered to provide more context for the recorded lectures, and therefore contributed to the robustness of the analysis and interpretation of the present data.

3. METHOD

In this section, the procedure and tool adopted for the coding of the topic signaling MDs, results of the intra- and inter-reliability measures conducted on a subset of the data, and details about the data analysis procedure are presented.

3.1. Coding procedure

The coding procedure adopted a function-to-form approach as the topic signaling function was first identified prior to its linguistic realization. The coder was the researcher herself who not only collected the corpus, but was also a lecturer in the same context. This strengthened the analysis of the data and the interpretation of findings. The coding procedure can be summarized as follows:

Figure 1. Coding procedure

As shown in Figure 1, coding began with the design of a topic hierarchy for each lecture (see Appendix 1). This was conducted after multiple viewings of, or listening to each lecture in the corpus and extensive note taking in an annotation diary on the topics and sub-topics that were developed. The type of topics and sub-topics covered are discourse rather than sentence topics defined in terms of "aboutness" (Riou, 2015: 6), that is "what the discourse is currently about, what the participants recognize they are talking about from what has been contributed to this point" (Fraser, 2009: 893). Three criteria for topic identification were used. The first is topic persistence or continuity defined as "a reflection of the topic's importance in the discourse, and therefore, of the speaker's topical intent" (Givón, 1983: 14). Topic persistence is manifested through the repetition of key terms, their synonyms, and/or reformulations of the same idea. The second criterion is the information provided by course descriptions where key topics for each lecture were listed. The third criterion is the topic signaling MDs themselves. At this point, it is important to note that the misuse or absence of MDs presented some difficulty in establishing a topic hierarchy. Another measure of topic persistence as proposed by Givón (1983) is to calculate the number of clauses to the right of the topic that is introduced. These clauses serve to develop the topic in a detailed fashion. In this study, a zero utterance to the right meant no persistence whereas a minimum of three utterances was opted for to designate a theme as a topic or sub-topic.

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After establishing the topic hierarchy, I moved to the second stage where I manually coded the discourse structuring phases where the topics and sub-topics previously identified are introduced. Below is an example of a discourse structuring phase from a lecture in Cultural Studies:

> <l_02>**<structuring phase>** okay good morning everybody <.>**<retrospective marker>***remember last time we said***</retrospective marker>** shush the british people were dissatisfied with the royal family okay and err especially right err with the death of lady diana right err ....so there are many voices calling for the abolition of monarchy **<retrospective marker>***remember that?* **</retrospective marker>** right those are called the republicans okay **<topic marker>***so today we're going to see***</topic marker>**their arguments why are they calling for the abolition of monarchy**</structuring phase>**</l><Civ-02-02-B>

In addition to contextualizing their talk via the use of retrospective markers such as *remember last time we said*, the lecturer also proceeds to insert the topic "arguments for the abolition of monarchy". In this way, the structuring phase serves as an "attention getter" (Palmer-Silveira, 2004: 102).

In the third stage, the topic signaling MDs within those phases were coded. The coding of the metadiscursive functions and the MDs was carried out via the UAM CorpusTool. The tool made it possible to draw the coding scheme, to manually code the lectures in terms of (pre-) designed features, and to add categories as the coding progressed. In fact, categories like Topic Marker_None and Topic Marker_Ambiguous emerged and it was possible to add them to the original scheme (see Appendix 2).
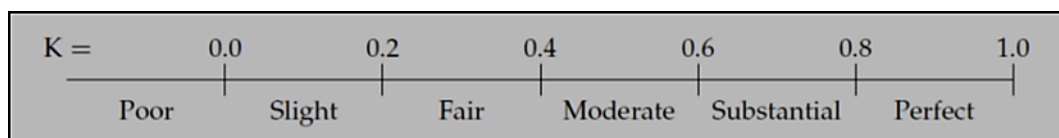
3.2. Reliability

Intra- and inter-coder reliability measures were carried out to test the consistency with which the coding was conducted. To this aim, topic signaling MDs were initially coded in two lectures. These represented 10% of the corpus and were randomly selected and re-coded a few months after the first coding had taken place. A number of 48 and 70 MDs respectively for the intra- and inter-coder reliability measures were coded. ReCal2, an online utility for calculating inter-coder reliability measures, was used to compute percentages of agreement and disagreements as well as various reliability coefficients. With respect to the inter-coder reliability procedure, the second coder was a lecturer who is a non-native speaker of English and a researcher who is familiar with linguistic analysis. A coder with these characteristics was the most suitable candidate to produce the most accurate interpretation of the data, since he/she would be familiar with the context where it was collected. Results of the intra-coder and inter-coder reliability measures are displayed in Table 1.

	PERCENT AGREEMENT	COHEN'S KAPPA	KRIPPENDORFF'S ALPHA (NOMINAL)
Intra-coder agreement	77.1%	0.615	0.618
Inter-coder agreement	67.1%	0.548	0.546

Table 1. Intra- and inter-coder reliability measures

The reliability scores obtained above were interpreted following Landis and Koch's (1977) scale of kappa values and strength of agreement shown in Figure 2 below.

Figure 2. Landis and Koch's (1977) kappa values and strength of agreement

Reliability for the intra-coder measure showed substantial agreement and moderate agreement for the inter-coder agreement. Results demonstrated a satisfactory reliability level, particularly given the fact that kappas and alphas below 0.6 are frequent in research involving discourse and pragmatic annotation (Spooren & Degand, 2010).

3.3. Data analysis

The analysis of the data was both qualitative and quantitative. Qualitative analysis involved examining the linguistic realization of the topic signaling MDs in TLC. These included *topic markers* as well as *topic shifters* and *sequencers* whenever these were used to introduce major topics and sub-topics. Categories were assigned to each realization and frequencies and percentages for each were calculated. Qualitative analysis of the data led also to the identification of particularly interesting phenomena that co-occurred with the topic signaling MDs under investigation.

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4. RESULTS AND DISCUSSION

Findings are organized around three axes: a) the way topics were realized, b) phenomena surrounding the topic signaling function, and c) issues related to this function.

4.1. Realizations of the topic signaling function

Table 2 displays the verbal and non-verbal categories employed to signal topics. Raw frequencies and percentages are provided. Two categories, *questions* and *formulas*, are further broken down into two sub-categories each.

Functional Category		N	N	Percentage[1]
Formulas	*With a metadiscursive verb*	96	115	**36%**
	Without a metadiscursive verb	19		
Discourse Markers (DMs)		68	68	**22%**
Questions	*Audience-oriented*	45	54	**17%**
	Content-oriented	9		
Metadiscursive nouns		27	27	**9%**
Visuals		19	19	**6%**
Other combinations		17	17	**6%**
Miscellaneous		11	11	**4%**
TOTAL			**311**	**100%**

Table 2. Realization of the topic signaling function

Overall, the data reflects the variety with which lecturers in TLC introduce topics. The category that is most used is *formulas*, amounting to around 36% of all the categories identified. In this study, a formula is defined in loose terms and refers to a multi-word expression that is made up of phrase or clause fragments functioning as "discourse frames for the expression of new information" (Biber & Barbieri, 2007: 270). In line with other research findings (e.g. Simpson-Vlach & Ellis, 2010), formulas used to introduce topics in TLC are made up of verb and dependent clause fragments and come in different lengths. They include metadiscursive verbs as in *have a look at* (extract 1) and *define* (extract 2).

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   (1) <l_14> **now** *let's have a look at* er before we deal with the visuals i'd like you to pay attention to style</l> <Lit-14-02-B>

   (2) <l_01>**okay so** *let's define* the cognitive approach [.] </l> <Ling-01-02-B>

In the two extracts above, the pseudo imperative *let's* precedes the verb. This construction is the most frequent within formulas. Most sequences use this inclusive and contracted form of *let* with 38 cases against 2 only for the form *let me*. This finding is similar to the ones reported in the literature. Crawford Camiciottoli (2004) and Pérez-Llantada (2006), for instance, found that this form is the most frequent in MICASE, a fact which is further corroborated by Swales and Malczewski's (2001) study of topic markers in the same corpus. The formula starting with *let's* is also part of the top 200 items used in the academic formula list devised by Simpson-Vlach and Ellis (2010) on the basis of the academic spoken

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[1] Percentages have been rounded off.

part of the MICASE corpus and the British National Corpus. A second widely used element in the formulas identified is *going to* constituting almost 24% of the overall number of expressions used. Of the 23 cases, only one includes the spoken and informal form *gonna* with the first person pronoun *I*. All other cases are contracted forms of *going to* using the inclusive pronoun *we*. These expressions are common in classroom teaching and are referred to as intention or prediction bundles often functioning as macro-discourse organizers (Biber, 2006). In terms of frequency of use, Palmer-Silveira (2004) found that the expression *going to* is systematically employed to introduce the various topics of a lecture in a corpus of UK lectures. Similarly, Crawford Camiciottoli (2004) found that this form and other progressive future forms are exclusively found in MICASE when compared to a corpus of guest speakers' lectures in the Italian context. Other relatively less frequent formulas are those where the metadiscursive verb is used directly as in *to finish with*, or those which use a pronoun followed by a modal verb as in *you can write down here*.

The prevalence of formulas in this study further corroborates their status in language as important building blocks of discourse in general (Biber & Barbieri, 2007; DeCarrico & Nattinger, 1988) and of classroom discourse in particular (Biber, Conrad, & Cortes, 2004). Research has often referred to the facilitating role that such formulas have on the processing of information both for L1 and L2 users (e.g. Yeldham, 2018). This value is especially highlighted in the case of the academic lecture genre. The formulas in TLC tend also to co-occur with *discourse markers* (DMs) such as *okay so* or *now* as in the examples above. These serve as attention getting devices that precede the topic signaling MD (Swales & Malckzewski, 2001).

DMs are also used as standalone topic signaling MDs. Indeed, they come in a second position as the most frequently used category representing over 22% of the total number of categories. DMs[2] here represent a sub-set of the MDs under investigation and refer to short lexical expressions such as *okay*, *so*, and *now*. They tend to occur in collocation with others as in extract 3, or individually as in extract 4.

(3) <l_09> *okay so* the legislative branch <lecturer writes on the white board> [..] in the british system if you remember we have a ? </lecturer writes on the white board> parliament and mps in the american we have a?
<ss> <congress> </l> <Civ-09-02-A>

(4) <l_10> *now* [.] when you analyze such a kind of example [.] the first thing you should discuss is the fact that <label>b</label> is not saying something which can <emph>literally</emph> be true literally speaking [.] </l> <Ling-10-02-B>

They are immediately followed by the topic (e.g. *the legislative branch* in extract 3). It is not surprising to have DMs as topic signaling MDs. They are reported to be

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[2] DMs which occur with other categories like formulas were not counted as part of this category.

"typical of classroom discourse as they are induced by teacher talk" (Buysse, 2012: 1766). When analyzing academic lectures by native speakers of English, DeCarrico and Nattinger (1988) and Swales and Malckzewski (2001) found that they function as "global macro organizers" or "new episode flags" signaling new topics in academic lectures. However, the use of short and opaque linguistic expressions such as DMs may be problematic for students to identify in a live event like the academic lecture (Martinez et al., 2013). In investigating EFL learners' and instructors' perceptions regarding their use of lexical phrases, Omidian, Shahriari, and Ghonsooly (2016: 2) found that the two parties alike prefer the use of lexical phrases that have "a clear form-function mapping". It is however possible that the use of DMs in combination with other categories contributes to reinforcing topic saliency.

Another category used to signal topics is *questions*, which is the third most frequent. They are mainly wh-questions or reduced forms of these produced with a rising intonation and distinguished by two features. The first is their occurrence in clusters with the use of double or a series of questions as illustrated in extracts 5 and 6.

> **(5)** <l_02> yes please *what are the other err programs [.] of the republicans? what do they suggest? [.]* <l/> <Civ-09-02-A>

> **(6)** <l_03> **okay now** *do you know the meaning of plus and minus common? [.] what are common nouns? [.] what are common nouns?* common [.] *what does common mean?*</l>
> <Ling-03-02-B>

Short pauses often occur after each question and serve as wait time by lecturers to allow for students' reflection. There is also a repetition effect which works to ensure listening comprehension and to increase cohesiveness. The second distinguishing feature in the use of questions to signal topics is DMs. This is the case of *okay now* before the question(s) in extract 6. Again, this technique reinforces the salience of the question and hence of the topic under focus.

Questions used to signal major topics and sub-topics in TLC have been divided into *audience-oriented questions* and *content-oriented questions* following Thompson (1998). The former give the opportunity to the audience, at least symbolically, "to provide an actual verbal or non-verbal response" (Thompson, 1998: 4). Extract 7 is an example where the lecturer draws on the students' background knowledge to introduce the topic "the British constitution" via an audience-oriented question.

> **(7)** <l_04>alright *what do you know about the british constitution?* of course we introduced the british constitution er a little bit last time but *what do you know about it?*</l>
> <s> <response></s>
> <l_04> sorry?</l>
> <s> <response></s>

<l_04> right so you said that the british constitution is largely <lecturer writes on the white board> unwritten [.] </l> <Civ-04-02-B>

As opposed to audience-oriented questions, content-oriented questions are those where the lecturer assumes that the audience does not know the answer, and hence proceeds immediately to provide it. This is the case with extract 8 where the lecturer answers the question *how about the language used?* by referring to repetition and its effect on the listener.

(8) <l_14> and *how about the language used?* look at the word funny how many times it's repeated? probably five times [.] the repetition of the word funny and this is this is why we keep questioning the extent to which it's funny this is how we learn that there is nothing funny about it okay? <foreign>donc</foreign> ((so)) there is bitter irony and the extract is characterized by an acute sense of sarcasm as far as the language used er is concerned [.] </l> <Lit-14-02-B>

In this particular case, however, it would perhaps have been more challenging for the students to use an audience-oriented question which would push them to analyze the text and detect those linguistic features that were used by the novelist to produce some desired effect on the reader. Such metadiscourse strategy would have been more relevant pedagogically as it has the potential of developing their analytical skills.

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The use of questions to signal topics is commonly ascribed to content-oriented questions, as empirical findings in a variety of contexts have revealed (e.g. Crawford Camiciottoli, 2008; Thompson, 1998; Young, 1994). In this study, however, it is the audience-oriented questions which are widely used for this function in TLC, representing 83% of the total number of questions identified as opposed to 17% for content-oriented questions. This finding can be explained in two ways. The first explanation is the growing trend for academic lectures, particularly those delivered to non-native students in CLIL contexts, to encompass interactional sequences (Mariotti, 2012). These sequences reflect the lecturers' attempt "to balance asymmetrical roles through signs of cooperation and identification with the audience" (Mariotti, 2012: 70). A second explanation for the pervasiveness of audience-oriented questions can be found in the context of the study. Lecturers in TLC tend to use classroom materials (e.g. texts and handouts) as a basis upon which they design their lectures. At times, the students are required to read those materials before class while at others these are provided during class. In both situations, questions are intended to incite students to read and analyze the materials to understand academic content.

Besides the aforementioned categories of formulas, DMs and questions, others used to signal topics have been identified. These are *metadiscursive nouns*, also called signaling nouns by Flowerdew (2015), as well as *visuals* constituting respectively around 9% and 6% of the total number of categories. Metadiscursive nouns are abstract nouns with no specific meaning referring backward or forward

to some discourse element in the text (Flowerdew, 2015; Jiang & Hyland, 2016). They have a cohesive function.

> **(9)** <l_04> **so mainly** *the argument goes like this* that whenever there is a change in the form of the government in that country we have a change in their constitution a war a revolution an independence a civil war which britain did not know actually and that's why the constitution was not written down there was no emergency for that</l> <Civ-04-02-B>

> **(10)** <l_13> *the other point is* **<lecturer writes on the white board>**we finish with this which is real world [.] versus pedagogic [.] tasks [.] <lecturer writes on the white board> real world versus pedagogic tasks </l> <Ling-13-02-A>

In the two extracts above, the nouns *argument* and *point* preview the topics that will be subsequently expanded serving thus as topic signaling MDs. Regarding visuals, all occurrences pertain to the lecturer writing on the white board. Thus, they are all text-based or scriptural in nature (Rowley-Jolivet, 2002) consisting mainly of writing down main topics and sub-topics. Most often, visuals occur after the lecturer verbally introduces the topic as it is the case in extract 10 above, and consequently, they further highlight the topic that will be discussed. In one lecture (Civ-02-09-A), however, one topic was marked only non-verbally, when the lecturer wrote it on the board. In the absence of any access to video recordings, it might have simply been assumed that he/she did not introduce the topic and this would have misled interpretation, hence the added value of multimodal corpora. In terms of their pedagogical value, this kind of visual realization may not sufficiently catch students' attention, which potentially would result in missing the topic.

The category *other combinations* refers to those segments with seemingly no major outstanding category and which account for 5.55% of the total number of the categories listed. Segments within this category are realized with more than two different categories, and accordingly, it was not possible to assign them to one specific category in any reliable way. Again, combining various metadiscourse strategies is likely to enhance the visibility of the topic to be introduced. Other less frequent categories have been grouped under *miscellaneous*, which accounts for 3.59% of all the categories. An example of a realization under the miscellaneous category is the use of paralinguistic features such as emphasis.

4.2. Co-occurring phenomena

Three major phenomena were identified in relation the topic signaling MDs. The first is the elicitation of a topic via an interactional exchange initiated by an audience-oriented question(s). Looking at extract 11, one can note that the lecturer attempts to elicit the topic alienation.

> **(11)** <l_11>...so they were in a state of er in between *in a state of what in a sense? of course er i would like the proper term when you feel that you are not at home anymore?*</l>

<ss> <lost></ss>
<l_11> lost in a sense okay? we will see the word lost one of the key words <lecturer writes on the white board> may be to speak about in our literature **and another term i prefer another term even when you are not when you will not feel at home anymore?<**/l>
<ss> <response></ss>
<l_11> hein? </l>
<ss> <responses></ss>
<l_11> when you are a stranger in fact of course hein? when of course when you feel that you are a stranger in your own territory **what kind of experience do you live?<**/l>
<s> <response></s>
<l_11> **what feeling?<**/l>
<s> <insecure></s>
<l_11> hein? **insecurity** you feel that you are an outsider that you are rejected in a sense you feel that you are surrounded by strangers because the people you meet are no longer the same **so what kind of er spirit is there?<**/l>
<s> <solitude></s>
<l_11> hein? **solitude and i hein?** </l>
<s> <alienation> </s>
<l_11> alienation *<lecturer writes on the white board>* in fact yes <lecturer writes on the white board> *alienation is going to be one of the key topics here that we are going to speak about* of course er this survey of literature in a sense hein? as *a <emph>major</emph> idea* hein? *alienation this is going to be a major principle* therefore of course *a major topic that we are going to survey* </l> <Lit-11-02-A>

To do so a lot of intervening activity occurs. The students' response to the lecturer's question in the first turn leads him to further specify the inquiry through the use of other questions (highlighted in bold) in subsequent utterances. The response *insecure* is then acknowledged by the lecturer who builds on it before initiating a second attempt to elicit the topic. This attempt is conducted via another question, *what kind of er spirit is there?*, which is prefaced by *so*. The student response *solitude* is acknowledged again and triggers another prompt *solitude and hein?* When the lecturer finally gets to the desired response, he/she proceeds to mark it in several ways: the use of the marked theme *alienation*, a visual when he/she writes down the topic on the board, the use of evaluative adjectives *key* and *major*, and metadiscursive verbs such as *speak about* and *survey*. A similar strategy is employed in extract 12 where the lecturer initiates an interaction in an attempt to make the students deduce the topic by analyzing a cartoon.

(12) <l_02> *other arguments? [.]* <lecturer shows a cartoon on the book>look at the second cartoon <.> look at the second cartoon [pause dur=10 secs] yes who are these people? in the second cartoon?</l>
<s> <response></s>
<l_02><foreign>Oay</foreign> ((yes)) the prime minister good </l>
<s> <response></s>
<l_02> and the queen okay so someone to read the dialogue yes miss</l>
<s> <reading aloud></s>
<l_02>uhm</l>
<s> <reading aloud></s>

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> <l_02> uh okay so *what can we **deduce** from this dialogue? there is another argument against monarchy and an important argument against monarchy what is it*?</l>
>
> ...
>
> <l_02> okay so those royal prerogatives hide right a kind of that's to say huge power held by the prime minister okay because all those prerogatives are done by the prime minister the so this is one of the main arguments against monarchy monarchy now becomes a cover right to a powerful prime minister right er err er that who holds huge power right err even err that's to say more powerful even than er the parliament is it clear the idea or not? [.] have you understood the idea or not? mm? *okay this is one of the main arguments against monarchy okay so write down please* [..] <lecturer dictates> </l> <Civ-02-02-B>

After a long interactional exchange that extends over 34 turns and some elaboration from the part of the lecturer, the final utterance in the extract *okay this is one of the main arguments against monarchy okay so write down please* explicitly marks and states the topic. In TLC, eliciting the topic via an interactional exchange is characterized by the use of a topic signaling MD that triggers or launches the exchange. Its role is to get the students' responses in view of identifying or specifying the topic that is next on the lecturer's agenda. Data like the above reflects the co-construction of academic discourse between lecturers and students deviating thus from our view of the aforementioned typical participant relationships in the academic lecture genre (Clancy & McCarthy, 2015; Trappes-Lomax, 2004). Ferrera (as cited in Clancy & McCarthy, 2015: 431) refers to this as an act of "symmetrical accommodation".

In addition to eliciting the topic via an interactional exchange, two other phenomena were detected: the *double marking of topics* and the *use of dictation*. Both work to support the visibility of new topics as illustrated in the following extracts.

(13) <l_13> so [.] *let's do the same thing and start with* the nature of of reading *what's meant by [.] to read?* </l> <Ling-13-02-A>

(14) <l_02>*other reforms? suggested by the er mm monarchists? [.] yes? [.] other reforms? [.]*</l>
<s> <response> </s>
<l_02> yes very good so the royal family should increase so the queen already right err pays taxes but here the <unintelligible token="1"/> is to increase right err this tax yes very good *so write down* yes [..] <lecturer dictates>to increase the amount [.] or the rate of tax paid by the royal family [..] </lecturer dictates> </l> <Civ-02-02-B>

In extract 13, the topic the nature of reading is marked by a verbal phrase initiated by *let's* and the metadiscursive verb *start with*. Another strategy follows consisting in the use of the audience-oriented question *what's meant by [.] to read?* In extract 14 and besides the double marking of the topic, the lecturer invites the students to write a distinct formulation of the topic formerly elaborated in the lecturer's second turn. Double marking, which is a type of repetition, and dictation represent manifestations of the didacticism that characterizes the academic lecture genre

and serve to facilitate the processing and structuring of content in real time through the redundancy effect they generate.

4.3. Issues related to topic signaling

Three issues were identified in relation to the topic signaling function in TLC: *ambiguity*, *absence of marking*, and *embedding*. Extract 15 illustrates a case of ambiguity and extract 16 a case of absence of marking.

(15) <l_01>okay let's talk about the role of the learner and the teacher in the reading approach what is the learner supposed to do?</l>
<s> <response></s>
….
<l_01> *and in the teacher* **what does the teacher do? what is the teacher supposed to do?** </l> <Ling-01-02-B>

(16) <l_07> it's what? [.] it's a way it's a technique especially memorization of what?
<ss> <vocabulary></ss>
<l_07> of vocabulary <false start> because we said that the essence </false start> so memorization is not an objective but it's? a means <false start> it's a </false start> it's kind of a technique a way for achieving the ultimate objective as we said which is achieving a proficiency in conversation okay?
…
so it is not an objective but it is a technique here okay [.] so these are the aims by the end is to achieve a conversational proficiency and help pupils to adopt techniques of memorizing vocabulary that is related of course to certain topics with emotional content here [.] *the syllabus*</l> <Ling-07-02-B>

The segment *and in the teacher* in extract 15 is ambiguous because of its non-standard formulation. At this particular point, the lecturer wanted to move from the sub-topic *learner roles* to the sub-topic *teacher roles*. However, the formulation does not seem to be linguistically appropriate, and expressions like *as far as the teacher role is concerned* or *now the teacher role* would perhaps have been clearer options to mark transition to the next topic. The subsequent use of markers such as *what does the teacher do? what is the teacher supposed to do?* may resolve this ambiguity.

With respect to extract 16, the absence of a topic marker before the sub-topic syllabus might reduce students' chances to notice that a new topic is being introduced. The presence of a closing phase and a pause prior to the topic statement can however help them do so. Given the real time delivery conditions of the lectures and the heavy load of information that students need to process, the absence of a topic signaling MD might still impede topic identification.

The third and final issue that was found in relation to the topic signaling function is embedding. Embedding refers to inserting other markers or information in a way that may obscure the identification of the topic. In extract 17,

the lecturer's attempts to contextualize his talk took precedence over the topic signaling function.

(17) <l_05>after this i think *now we're going to focus on* the physical features of modern day canada after it became what it is today yes? **we'll look at** all features physical political *but now we're going to focus on* canada's physical features **we talked about** this in the early courses **if you remember** *but now we'll look at this* *[.]* <lecturer flips through pages> with yes more focus [.] </l> <Civ-05-02-B>

Contextualizing is reflected through the use of the prospective marker*: we'll look at* and the *retrospective marker*: *if you remember*. Their use compels the lecturer to resume introducing the topic each time through the reiteration of several topic markers. In such case, the embedding may confuse the students, and hence, have a counter-productive impact on discourse reception. This is due to the real time conditions under which the students are required to process, identify, and understand the topic. A related phenomenon is the amount of elaboration that at times is found before a topic is introduced.

(18) <l_11> err a very small er a very very small er er parenthesis *i would like to er also to speak about* with reference to this modernist revolution in a sense because when we speak about american literature *we have to speak about* er err not a lot of may be white america in fact as a literature in a sense *but of course draw the attention to* the emergence in the nineteen thirties in particular of a of the er of the of the {<s> <the harlem renaissance>}
<s> <the harlem renaissance></s>
<l_11> of the word **the harlem renaissance** in fact hein? <lecturer writes on the white board> the harlem renaissance </lecturer writes on the white board> </l> <Lit-11-02-A>

(19) <l_11>*so here* instead of talking about you know of course the <emph>joy</emph> in fact that they were searching for the <emph>adventure</emph> they were searching for the <emph>beauty</emph> of the war they will discover the ugly picture because this is the first time we use of course the sophisticated weapons in fact of course hein? *and here we already describe what will call* **the experience of the war trauma** in fact hein? [.] the trauma of the war in fact is going to be er described in this er er in most of the writings of er we will see hemingway we will see er ee cummings </l> <Lit-11-02-A>

Both extracts above illustrate the distance that may exist between the MDs and the topic they are supposed to introduce. The difficulty would be for students to connect the marker with the topic especially because a substantial amount of information occurs in between both elements. Proximity is an important factor that can impact upon the perception of a link between the topic marker and the topic itself (Bruti, 2004).

Presenting the topic as a succession of utterances may support students in processing and understanding academic content. Nevertheless, if this practice does not combine with the use of handouts where key topics and sub-topics are stated, students may feel dispersed and unable to clearly articulate the topics that they understood during the lecture. Although handouts were not collected, the researcher noted, based on the videos as well as their readings by the lecturer

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and/or the students, that they included whole paragraphs rather than notes and titles only.

5. SUMMARY OF FINDINGS

This study is part of a larger scale project where I analyze the discourse of academic lectures in the Tunisian Lecture Corpus (TLC) (Bouziri, 2019). This paper in particular sought to identify the topic signaling MDs used in TLC, the way they were realized, as well as any arising issues that may pertain to such realizations. Three major findings can be drawn. The first is the variety with which the topic signaling function is conducted. There have been mixed findings in relation to this. On the one hand, heterogeneous realizations of metadiscourse were noted by Hyland (2005) in his investigation of academic written discourse. On the other hand, other researchers suggested the opposite. In investigating the way topics are introduced in MICASE, Swales and Malckzewski (2001) reported the frequent use of DMs and the pseudo imperative *let's* to realize this function in the discourse of native lecturers. Examining the discourse of Spanish lecturers, Martín del Pozo (2016) found that it does not exhibit much variety when compared to native speakers. Such mixed findings suggest that variety appears to be more related to the idiosyncratic preferences of lecturers rather than to their language background (Swales & Malckewski, 2001). It can also be explained by the lecturers' awareness of the difficulties their students face when attending their lectures. For them, the use of a variety of topic signaling devices could assist the students in identifying major topics in a lecture. This finding suggests how the use of metadiscourse is shaped by the rhetorical context where it occurs. It also reflects the lecturers' awareness of the importance of making major topics and sub-topics salient to their students.

A second major finding is the audience orientation that lecturers adopted when they introduced topics. Audience orientation was displayed in the co-occurrence of topic signaling MDs with each other (e.g. the use of DMs along with formulas) as well as with phenomena like dictation. Again, the purpose appears to be accentuating the visibility of the topics for the students and may be explained in general by the didacticism that characterizes the lecture genre and in particular by the fact that students are non-native speakers of English. These often experience difficulties identifying the major topics and sub-topics that structure the lectures they are exposed to. An audience-oriented approach was also revealed during the introduction of topics via interactional exchanges. This strategy reflects discourse as "a joint action in the making" (Trappes-Lomax, 2004: 142) and its conceptualization as process rather than product. This is particularly interesting to note for a genre like the academic lecture which is typically characterized by a novice-expert relationship.

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The third major finding is the similarities and differences with findings from corpora in other contexts. The dominance of formulas and DMs for the topic signaling function matches similar findings in research conducted on MICASE and the British National Corpus (Simpson-Vlach & Ellis, 2010; Swales & Malckzewski, 2001). Such finding suggests that genre is an important variable shaping the linguistic characteristic of the lecturer discourse irrespective of their language background. A difference from other findings reported in the literature relates to introducing topics via interactional exchanges. This difference may be related to the design of this study, which investigated topic signaling MDs within their broad metadiscursive function. It may also be explained by the fact that lecturers in Tunisian universities are pressured to make their courses more interactive.

6. LIMITATIONS AND IMPLICATIONS OF THE STUDY

Before discussing the implications that the aforementioned findings have, it is important to draw attention to the limitations of the present study. The first is that it did not go beyond describing and explaining the way lecturers in TLC introduced topics and sub-topics of their lecture, their realizations as well as co-occurring phenomena and potential issues. Although an in-depth analysis of the data was carried out, experimental studies are still needed to investigate the effect that such realizations have on the students' comprehension and learning from lectures. Future research is planned to remedy this. A second limitation is the absence of follow-up interviews with the lecturers. These could have enhanced our understanding of the strategies the lecturers in this study adopt to introduce topics. The third limitation is the small size of the corpus used. It would be interesting to analyze and interpret topic signaling in more lectures drawn from other disciplines so that the findings can be more generalizable.

Despite these limitations, a number of important implications can be drawn. The first is the identification of topic signaling strategies and phenomena that were not reported in the literature. One example is the process of introducing a topic through interaction. Participants seem to use this strategy to engage the students in the lecture thus creating a positive and cooperative classroom atmosphere which is favorable to learning. The question however remains as per the extent to which this strategy is pedagogically viable for this particular metadiscursive function. In other words, it might be that the lexical density that precedes the explicit statement of the topic can obscure it. The length of the interactional exchange and the amount of analysis conducted before stating the topic may disperse the students' attention preventing them from pinpointing the topic. The repeated marking of the topic at the end of the exchange, and the lecturer's invitation to take notes, however, can attenuate any potential negative effect that this strategy could have.

Besides, phenomena like dictation and repetition co-occurring in the constellation of topic signaling MDs in TLC contribute to facilitating the processing and identification of topics. Such phenomena have been neglected in research on academic lectures. Research on metadiscourse may thus need to widen its scope to investigate the way such phenomena, together with MDs, contribute to the cohesiveness of texts as well as the way those can be integrated in EAP course and materials design to train students in exploiting them to identify major topics in lectures along with the topic signaling MDs.

Cases of ambiguity and absence of marking should also be addressed as the lecturer discourse functions not only to guide and facilitate comprehension, but also to shape the discourse and the pragmatic competence of the students, to develop their academic language, and to induct them into the academic discourse community of their discipline (Fung & Carter, 2007; Lee & Subtirelu, 2015). Accordingly, the classroom language of lecturers in foreign language contexts is a significant variable to consider and upgrade. It should be stressed that ambiguity and absence of signaling are not restricted to non-native lecturers as is often suggested and that such issues should also be identified in native lecturers' discourse.

Finally, one important implication of this study is the rewards that an in-depth qualitative analysis offers. The qualitative approach that was adopted in this study uncovered phenomena and issues closely related to the topic signaling function in TLC. If structuring phases were not coded, the analysis would have remained largely descriptive and shallow and such phenomena and issues could have been easily dismissed. Interestingly, it is thanks to the small size of TLC that such analysis was possible. Though not generalizable, the findings presented in this paper are context-specific, and thus respond best to the needs of lecturers and students in Tunisia. These benefits are perceived as "acceptable trade-off[s]" that can compensate for the absence of a large corpus (Crawford Camiciottoli, 2008: 1228). More qualitative studies are required to enhance our understanding of the way metadiscourse interacts with other devices including non-verbal signals to potentially boost interaction as well as comprehension and learning during lectures.

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Appendix 1

Topic hierarchy for <Ling-10-02-B>

Topic 1: What are inferences?

Topic 2: Conversational implicature
       Sub-topic 1: The cooperative principle
       Sub-topic 2: Gricean maxims
       Sub-topic 3: Status of assumptions

Topic 3: Conventional implicature
       Sub-topic 1: Definition
       Sub-topic 2: Status of assumptions

Topic 4: Presupposition
        Sub-topic 1: Presupposition triggers
        Sub-topic 2: Presupposition failures

Topic 5: Deviation

Appendix 2

Coding scheme

DISCOURSE_STRUCTURING_PHASE
- topic-marker
- sequencer
- topic-shifter
- topic-marker-none
- topic-marker-ambiguous

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