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INSTRUCTION AND INTERACTION IN AN AMERICAN LECTURE CLASS. OBSERVATIONS FROM A CORPUS
Instrução e Interação em Aulas em Forma de Palestras Pertencentes a um Corpus Norte-americano

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Abstract

Taking the Michigan Corpus of Academic Spoken English, this paper explores the pragmatic behavior of one-word tags – a common feature in conversational English – in academic speech. The analysis indicates that university professors use tags within textual metadiscourse patterns to signpost their audiences and facilitate comprehension. In addition, tags correlate with interpersonal metadiscourse elements typical of conversation that help lecturers adopt stances, convey solidarity and socialize with their undergraduates. The conclusion section relates the interpersonal semiotics of lectures to the communicative goals of university talk and suggests the need to approach listening comprehension through students' awareness of genres as social actions.

Key-words: *genre analysis, sociorhetoric, metadiscourse, listening comprehension.*

Resumo

Com base no Michigan Corpus of Academic Spoken English, este artigo explora o comportamento pragmático de tags compostos por uma única palavra – uma característica do inglês conversacional – no discurso acadêmico. A análise indica que professores universitários utilizam tags dentro de padrões metadiscursivos textuais para guiar suas audiências e facilitar a compreensão. Além disso, os tags correlacionam-se a elementos metadiscursivos interpessoais típicos da conversação que auxiliam os palestrantes a adotar posturas, transmitir solidariedade e se socializar com seus alunos de graduação. A seção de conclusão relaciona a semiótica interpessoal das palestras às metas comunicativas da fala universitária e sugere a necessidade de se abordar a

compreensão oral através da conscientização dos alunos em relação a gêneros como ações sociais.

Palavras-chave: *análise de gênero, socioretórica, metadiscurso, compreensão oral.*

1. Introduction

Genre theory has proposed a "context-driven procedure" (Askehave & Swales 2001: 208) for assigning communicative purpose to a given text. In this view, the notion of 'purpose' is interpreted on a social basis and results in a more flexible concept of genre that, by prioritizing the Saussurian dichotomy of *langue* and *parole*, shares common ground with Bakhtin's (1986) views on the dialogic nature of speech genres. In order to contribute to a deeper understanding of the communicative purposes of the lecture-genre, this paper looks at the contextual uses of one-word tags as pragmatic markers of both classroom management and socialization.

Tags like *okay?, right?, yeah?, yes?, mkay?* or *kay?* occur in a stand-alone way and instantiate ingrained habits in native speakers. The *Longman grammar of spoken and written English* (Biber et al., 1999) describes them as linguistic features that maintain conversational coherence by either signaling the transition in the progress of speech or indicating the interactive relation between speaker and hearer. If tags perform these clear roles in the macrogenre of conversation, it remains an open question whether they have similar pragmatic purposes in lecture speech. To enquire into whether tags allow university lecturers to cope with online speech production, maintain backchannel and ensure the addressee's response, we selected the *Michigan Corpus of Academic Spoken Discourse* (MICASE) – an electronic compilation of 1.7 million words of academic speech recorded at the University of Michigan (Simpson et al., 1999) – as the main source of analysis.

The starting point for the present study is Csomay's (2002) contention that though lectures contain some grammatical features

associated with dense informational package – thus reflecting features of academic prose –, they also borrow interactive features of conversation. Our hypothesis is that although the expected communicative purposes of a lecture are formal instruction and information transfer, there are some linguistic features such as tags that, being part of a casual style, seek to promote interactivity in the lecture genre. Firstly, we will observe the frequency distribution of tags in both classroom and non-class speech events compiled in MICASE. Secondly, the frequency variability of tags in the lecture-genre across MICASE academic divisions will be examined to find out whether these disciplines share similar discoursal features. Thirdly, a quantitative and qualitative description of the functional variability of tags in context will be carried out. In doing so we will evince how linguistic realizations such as tags involve not simply a way of checking comprehension but also an act of socializing between interactants with different social roles and statuses.

2. Methodology and data

To carry out the study three different sub-corpora were selected from the Michigan corpus and were designated as Corpus A, Corpus B and Corpus C. Corpus A comprised the 152 speech events compiled in MICASE. Sixteen different genre categories were represented including both dialogic and monologic discourse modes (advising, colloquia, discussion sections, dissertation defences, interviews, labs, long lectures, short lectures, meetings, office hours, seminars, study groups, student presentations, service encounters, tours and tutorials). Using concordance software *Wordsmith Tools 3.0* (Scott 1998), this corpus was used to search for frequency variability of one-word question tags across classroom and non-class speech events.

The lecture genre scored the highest occurrence of one-word tags in MICASE, being *okay?* the commonest one. Corpus B was then created to study the frequency distribution of this particular tag across the four academic divisions of the Michigan corpus – as previous research has observed discipline variation in some discoursal features (see, for instance, the case of hedges in Poos & Simpson 2002). With

625,042 words, Corpus B included 62 classroom events (31 long lectures and 31 short lectures) from the disciplines of Humanities and Arts, Physical Sciences and Engineering, Social Sciences and Education, Biology and Health Sciences.

In the last stage of the research Corpus C was created to quantify and illustrate the multipragmatic behaviour of the tag not as an isolated linguistic element but rather as a recurrent element of academic speech phraseology. This corpus included 5 long lectures (a total of 27,407 words) from the division of Physical Sciences and Engineering, as this discipline scored the highest tag frequency compared to the other three.

3. Results

3.1. Quantitative results

3.1.1. Frequency of tags across classroom vs. non-class speech events

As stated above, the first step of the research was to quantify the frequency variability of one-word tags in classroom vs. non-class events. The tags *okay?*, *right?*, *yes?*, *yeah*?, *kay?* and *mkay?* were selected as the sample for the study. To carry out the frequency count we chose only those tags with rising intonation as signaled by "?" in the transcripts of the speech events since at that moment it was not possible to check the intonational patterns. Tables 1a and 1b show the results of the search.

Tables 1a and 1b indicate that tags score highest in classroom situations. Discussion sections, lab sections, long and short lectures, seminars and student presentations accounted for a total of 2,832 items (64.55% of the total number of occurrences), while in the non-class events 1,549 items (35.31%) were counted. The higher presence of tags in classroom events suggests that university professors tend to prefer an informal conversation-like style rather than the formality one may expect in an institutional setting.

As for the distribution of tags across classroom events the highest count was found in short and long lectures (779 and 635 tokens

respectively), being *okay?* (808 tokens and 57% of the occurrences) and *right?* (413 tokens, 29.2%) the most commonly ingrained habits among the Michigan professors. Interestingly, the lecturing genre scored highest in spite of the fact that it stands as the most representative monologic discourse mode of all the classroom events. In university lectures teachers monopolize the floor while instructing their audiences and students do hardly participate. It then appears that through colloquial

Speech category	*Okay?*	*Right?*	*Yes?*	*Yeah?*	*Kay?*	*Mkay?*	Total tokens x speech act	Comparative frequency %
Discussion section	220	196	23	14	2	17	**472**	**16.6%**
Laboratory section	90	174	17	28	-	11	**320**	**11.2%**
Long lecture	326	212	15	36	11	35	**635**	**22.4%**
Short lecture	482	201	14	62	7	13	**779**	**27.5%**
Seminar	121	355	6	24	1	5	**512**	**18%**
Student presentation	41	54	6	13	-	-	**114**	**4.0%**
TOTAL	**1280**	**1192**	**81**	**117**	**21**	**81**	**2832**	**100%**

Table 1a: Distribution of tags in MICASE classroom speech events

Speech category	*Okay?*	*Right?*	*Yes?*	*Yeah?*	*Kay?*	*Mkay?*	Total tokens x speech act	Comparative frequency
Advisory session	14	26	-	3	-	-	**43**	**2.7%**
Colloquium	39	66	14	86	13	3	**221**	**14.2%**
Dissertation defence	8	20	-	-	-	-	**28**	**1.8%**
Interview	1	8	-	1	-	-	**10**	**0.6%**
Meeting	20	44	1	4	-	1	**70**	**4.5%**
Office hours	131	456	2	4	-	3	**596**	**38.4%**
Student group	94	341	3	6	-	-	**444**	**28.6%**
Service encounters	24	17	1	7	4	1	**54**	**3.4%**
Tour	6	9	-	-	-	-	**15**	**0.9%**
Tutorial	35	29	-	2	-	2	**68**	**4.3%**
TOTAL	**372**	**1016**	**21**	**113**	**17**	**10**	**1549**	**100%**

Table 1b: Distribution of tags in MICASE non-class speech events

features such as tags lecturers do not simply check comprehension but also seek to convey informality towards their audiences of undergraduates in order to lessen the power entailed in the social roles that university professors represent in the academe.

Lectures were followed by seminars (512 tokens), discussion sections (472 tokens), lab sections (320 tokens) and student presentations (114 tokens). The lower tag frequencies in these classroom events can also be related to the conventions of each genre. Discussion sections and seminars are additional sections of a lecture class. Designed for maximum student participation they usually entail more turn-takings or question and answer periods than in a completely monologic class and these communicative expectations explain why tags do not necessarily recur in both speech events. Tags are not common in student presentations probably because they are non-native speakers of English. When speaking in front of the class students are under time-pressure and tend to avoid audience intervention. In any case, the fewer tags used by Michigan student presenters is a complex issue and future research should explore whether parameters such as 'non-nativeness' and 'social role' affect discourse production.

3.1.2. Frequency distribution of *okay?* across academic divisions

To enquire into discipline variation, a second search was conducted using Corpus B. Both long and short lectures (LEL and LES henceforth) were selected because they represent 78% of monologic speech vs. 22% of interactive and mixed modes, whereas in the remaining classroom events this proportion was reversed. Occurrences were counted taking together both the comprehension check function and the socializing function of the tag. Results are shown in Table 2.

The total number of *okay?* tags (808 tokens) scored a mean of 12.92 per 10,000 words and indicates a very slight variation across the four divisions. When observed individually, the highest mean in the LEL group corresponds to the discipline of Physical Sciences and Engineering (19.69), followed by Biological and Health Sciences (13.49). Lower percentages are found in Humanities and Arts (8.93)

Academic discipline	No. of tokens (LEL)	Mean x 10,000 word (LEL)	No. of tokens (LES)	Mean x 10,000 words (LES)	Total no. of tokens	**Total mean x 10,000 words**
Humanities and Arts	71	8.90	148	13.78	219	**11.70**
Social Sciences and Education	76	8.93	128	16.16	204	**12.41**
Biological and Health Sciences	90	13.49	104	12.49	194	**12.93**
Physical Sciences and Engineering	89	19.69	102	12.99	191	**15.44**
TOTALS	**326**	**11.78**	**482**	**13.83**	**808**	**12.92**

Table 2: Distribution of *okay?* tags in LEL across academic divisions

and Social Sciences and Education (8.9). In the LES group, the tag frequency is more evenly distributed across the disciplines, the highest score being for Social Sciences (16.16). However, if we classify these disciplines into hard and soft sciences, hard disciplines score a mean of 28.37, whereas in the soft ones the total mean is lower (24.11). As the right hand column in Table 2 shows, slightly higher means appear in the two hard science specializations found in MICASE (15.44 and 12.93) when compared with the two soft ones (12.41 and 11.7). Bearing in mind the higher conceptual density of the hard disciplines, this slight variation suggests that informational load is lessened by a casual lecturing style that seeks to create a friendly classroom environment – as the contextual analysis in section 3.2. will support.

When assessing the interactivity rating of the lectures (see Simpson & Leicher, forthcoming) an interesting observation was also made. From 808 total tag hits, 77% belong to monologic lectures whereas only 186 (23%) correspond to those lectures classified as interactive or mixed. This data suggests that completely monologic speech makes a greater use of conversational tags for purposes other than welcoming questions from the audience – purposes such as professors' attempt to socialize with students in order to redress power status and shared knowledge differences. This fact also confirms that "level of instruction impacts the linguistic features of academic lectures" (Csomay 2002: 204). If we assess the 'participant level' variable of the 62 lectures analyzed, 52 correspond to undergraduates – mostly junior undergrads

– whereas the remaining 10 address graduate students who, in theory, are more acquainted with disciplinary knowledge. We can therefore explain the use of tags by the Michigan lecturers as professors' interest in avoiding linguistic complexity when initiating students into disciplinary conceptualizations.

3.1.3. Frequency distribution of *okay?* tags across speaker attributes

Since no relevant variation was identified when comparing academic divisions, we created Corpus C with five large lectures from Physical Sciences and Engineering – the highest tag score across disciplines. Grounded in Crawford's statement that lecturing is "very much a matter of the individual style and personality of the lecturer" (2004: 50), we sought to determine whether those speaker attributes provided by the MICASE browsing feature affect the functional behavior of tags for both instruction and socialization purposes. The following variables were considered (codes given in brackets):

- Nativeness: native speaker (NS), non-native (NNS).
- Academic role: First and second year undergraduates (JU), third year and above undergraduates (SU), first and second year or Master's level graduate students (JG), third year and above Ph.D. students (SG), Lecturers and Assistant Professors (JF), Associate Professors and above (SF), non-teaching researchers (RE), post-doctoral research fellows (PD), non-teaching University employees (ST), non-University of Michigan affiliates (VO).
- Gender: male (M) or female (F).
- Age group: group 1 (17-23), group 2 (24-30), group 3 (31-50) and group 4 (51 and older).

In an attempt to further Swales & Malczewski's (2001) study on the role of *okay* as "new episode flag" or spoken discourse marker signaling transition in speech, a contrastive analysis was carried out

comparing the frequency of *okay* as a marker and as a tag (see Table 3 below). The information provided in this table was further compared with other parameters such as number of students, interactivity rating and participant level. By this means, we sought to verify if these variables may also affect the professors' speaking styles.

Lecture title	Native speaker status	Academic role	Gender	Age group	No. of disc. markers	No. of tags	**Tag freq.** x 10,000 words	Total tag %
Separation Processes	NS	SF	M	3	**42**	20	**46.7**	**47.6%**
Structure & Reactivity	NS	SF	F	4	19	14	**36.6**	**73.68%**
Intro Engineering	NS	SF	M	3	46	18	**32.3**	**39.13%**
Inorganic Chemistry	NS	JF	F	4	43	19	**29.0**	**25.5%**
Intro to Physics	NS	SF	M	4	23	7	**9.6**	**30.43%**
TOTALS					**173**	**78**	**28.45**	**45%**

Table 3. Frequency distribution of *okay/okay?* according to speaker attributes

Although Swales and Malkzewski found that the tag function represents 10% of the functional distribution of *okay* in the whole MICASE, in corpus C *okay?* tags account for 45% of the instances, which reveals that they play an important role in the phraseology of lecture speech. Findings also show that neither the number of students attending the lectures – ranging from 65 to 400 – nor the interactivity rating – four out of the five lectures were highly/mostly monologic – seem to affect the use of tags, thus indicating that it is more a matter of personal choice.

If we have a closer look at the main speaker attributes, the lecturers of corpus C are all native speakers of North American English (NS), fluent and grammatically proficient in the language. Interestingly, the academic role variable showed that the three lecturers belonging to the Professors and above (SF) category scored highest, then followed by the JF position – representing lecturers and Assistant Professors. The age group variable showed similar coincidences, that is, the

predominant speakers using tags are those of age 3 and 4 groups. Although we should bear in mind the small size of Corpus C, results hint at the fact that the use of *okay?* is more common among permanent teaching staff with several years of teaching experience and it is possibly such teaching experience that makes them more aware of the need to facilitate students' understanding by means of a simple grammar-patterned style.

To support this tentative claim, the variable 'participant level' was also checked and was shown to correlate with the higher occurrence of tags. Corpus C showed that all the lecturers address audiences of undergraduates whose prior knowledge is not assumed and therefore power status differences between professors and audiences are more evident. This is especially prominent, for instance, in the *Structure and Reactivity* lecture, probably because it is the most conceptually dense of the five lectures. The highest occurrence of *okay?* tags serves this lecturer to check comprehension and soften conceptual complexity through a casual speech. In all, we can conclude that instead of the formality expected in planned and monologic discourse the five Michigan professors tend to prefer a colloquial style that promotes solidarity relations with the audiences while instructing them.

The section below analyzes the functional distribution of the *okay?* tag as a recurrent element of academic talk phraseology (subsection 3.2.1.) and further illustrates the phraseological collocates of the tag within a specific context of use (subsection 3.2.2.).

3.2. Contextual analysis of *okay?* tags

3.2.1. Functional distribution of *okay?*

Using Corpus C, the analysis of lexico-grammatical elements co-occurring with the tag showed that *okay?* performs similar functions to those performed in conversation (see Table 4). On the one hand, the tag works as a discourse filler introducing textual metadiscourse patterns. Metatextual expressions like ***okay?*** *so let's start with this* […], ***okay?*** *so now let's see what it looks like* or ***okay?*** *and I'll fill in what that*

means a little bit in a minute, etc., aim at informing students about the organization of the lecture and corroborate the professor's floor maintaining position. On the other hand, the tag behaves as an interactive particle and correlates with interpersonal metadiscourse elements (personal pronouns, hedges, evaluative adjectives and adverbs, etc.) that unveil an attitudinal language (Hunston & Thompson 2000) and project a persona. This is the case of statements like ***okay?*** *and I'm really excited by prime numbers*, ***okay?*** *I want to think that way* […], ***okay?*** *now some of you I can see are smiling* […] or ***okay?*** *and you can see you just get* […], etc. It should be noted that in some cases the functional distribution of tags displayed a textual/interpersonal overlap regarding metadiscourse functions. To avoid such overlapping we further quantified the phraseological correlates of the tag to determine its most prominent function.

Lecture title	Total no. of entries	Response elicitor	Discourse filler	Interpersonal particle
Separation Processes	20	4	7	9
Inorganic Chemistry	19	-	14	5
Structure and Reactivity II	14	2	5	7
Intro Engineering	18	5	5	8
Intro to Physics	7	-	2	5
TOTALS	**77** **100%**	**11** **14.2%**	**33** **42.8%**	**34** **44.1%**

Table 4: Functional distribution of *okay?* in Corpus C

Table 4 shows that only 14.2% of the total tokens behave as response elicitors operating as opportunities for students to raise issues and questions. These *okays?* are followed by attention-getting expressions or by a question and answer period, a function that relates to the primarily didactic purposes of the genre. From the viewpoint of information exchange, these tags are a token of sensitivity to the audience. They help lecturers to chunk information into small pieces and give students more time to grasp what they have heard, to write things down and, if necessary, to ask questions.

However, results indicate that *okay?* is more likely to function as a discourse marker for both instruction and socialization purposes

(67 entries and 87% of the instances) and, in almost half of the instances (42.8%), it correlates with both textual and interpersonal metadiscourse patterns. Because one of the communicative purposes of a lecture is to inform students, *okay?* combines with metatextual references that signpost the speaker's discourse management control: to organize the agenda, assign tasks to students, pave the way to a new topic, introduce summaries and paraphrases, reformulate or expand information (see section 3.2.2.). These results further Thompson's (2003) study on the role of text structuring metadiscourse for facilitating academic lecture comprehension and are also consistent with Mauranen's (2001) claim on the authority function of discourse reflexivity in the MICASE, a function which – as Mauranen puts it – "is highly loaded with hidden dialogicality, showing speaker awareness of the hearer's position" (2001: 172).

As for the linguistic realizations of this authority function, the Michigan professors appear to apply the constructional principles of spoken grammar, that is, the use of the add-on strategy for establishing relations of embedding and coordination. By way of illustration, Table 5 displays the list of conjunctions forming clusters with *okay?* generated with the *Wordsmith Concordancer*.

	okay? so	okay? and	okay? now	okay? if	okay? but
Separation Processes	5	2	-	-	-
Inorganic Chemistry	5	4	4	-	1
Structure and Reactivity	10	2	-	-	-
Intro Engineering	2	2	-	-	-
Intro to Physics	1	4	1	1	-
TOTAL counts	**23**	**14**	**5**	**1**	**1**
Total %	**52%**	**32%**	**11%**	**2%**	**2%**

Table 5: Frequency distribution of *okay?* clusters in Corpus C

Resembling conversational style, the presence of tag clusters unveils simple syntax clause strings that contribute to a dynamic information transfer. From a total of 44 clusters (56.4% of the total

number of tag occurrences), *okay? so* scores highest with 23 entries (52% of the instances) and is used to introduce deductions and hypotheses (***okay? so*** *we have* […], ***okay? so*** *let's say* […]), paraphrases (***okay? so*** *in other words what we're saying* […]), recapitulations and summaries (***okay? so*** *all it means* […]). The second commonest cluster, *okay? and* links parallel syntactic constructions that provide textual coherence (***okay? and*** *what happens is* […], ***okay? and*** *in this case it will have* […], etc.). This cluster also combines with metatextual references whose main function is to shift topic, expand an idea, give emphasis or draw conclusions (***okay? and*** *once again* […], ***okay? and*** *once you have* […], etc.). Similarly, the cluster *okay? now* anticipates topic transition or a new segment of the speech, thus providing continuity to the exposition (***okay? now*** *uh what you see* […], ***okay? now*** *it turns out that Newtonian mechanics* […], etc.). The remaining clusters also introduce predictions, hypotheses and contrasts (***okay? if*** *something does not precipitate very readily* […], ***okay? but*** *as I add base the concentration of the acid falls*, etc.), thus performing coherence and cohesion functions in speech.

In addition to correlating with metatextual phraseology, o*kay?* tags combine with interpersonal metadiscourse elements. This third functional category represents 44.87% of the total tag occurrences and it allows lecturers to approach the audience in a more deferential style that mitigates the instructors' power positions. Far distanced from the formality of academic writing, the Michigan professors use a low-mean phrase-rate syntax intertwined with hedging devices that reveal speaker stance. More specifically, evaluative adjectives and adverbial intensifiers (Mauranen, 2000; Swales & Burke, 2003), modal verbs (*may*, *might*), epistemic verbs taking that-clauses as complements (*think*, *say*, *know*), first person plural nominative pronouns (Fortanet 2004), polite directives and other conversation hedges become expressive of politeness, emotion and attitude. What follows is a descriptive account of how the tag operates in Corpus C. The five lectures will be analyzed individually since each of the professors shows different speaking styles and different strategies for managing discourse while creating conviviality towards audiences.

3.2.2. Multipragmatic behavior of *okay?* in context

In the first lecture of Corpus C, *Separation Processes*, a senior faculty member addresses 65 undergraduates. Since it is a relatively small class compared to the other lectures it favours some turn-takings. In those instances, tags help the professor check comprehension (***okay?*** *questions about that..? seem* ***okay***?, *is that* ***okay****?*) and are followed by students' participation. Nevertheless, the tag is mostly used as a discourse filler retaining the floor in informative extracts. In the example below, the lecturer describes a physical process and moves from the general (*let's say... looks something like that... approximately*) to a specific defining relative clause (*which is the low concentration to Y-in*) and finally draws a conclusion (*it's a straight line*). Deduction and hypothesizing statements support the scientific reasoning process and the tag correlates with *I* vs. *you* pronouns, which creates distance between instructor and audience:

> (1) let's say, delta-out, delta-in, from Y-out which is the low concentration to Y-in looks something like that right? for what I've drawn there, approximately. **okay?** it's a straight line. so this slope, is equal, to the change in delta with Y, and that is constant.

The tag also accompanies textual metadiscourse references that anticipate a new discourse section (*and that's what I'm gonna show you.* ***okay?***), emphasize ideas (***okay?*** *and don't forget this equation*) or repeat important concepts. In addition, modalized categorical statements such as *you can't do* or *you have to* lay bare the instructor's floor maintaining position. To lessen such power status, the professor combines instructional speech with expressions of politeness and stance. *Okay?* collocates with first person plural pronouns, collective imperatives (*we're moving we did*, *lemme, let's look, gonna look*) and hedged expressions (*just*, *kinda*) which, pragmatically speaking, represent less face-threatening alternatives. Similarly, attitudinal markers recur when the lecturer apologizes and seeks consensus to mitigate his authority voice (emphasis added):

> (2) ... and now what *we*'re moving to is what a- if *we* don't have the constant flow rates. **okay**? so what *we* did is ... define, the solute free flow rates *and I apologize I shoulda* started with that simple log mean driving force equation. *but I kinda like to* do it after you do the f- the first equation so you know where it's coming from and *just* plug in for the simplification.

Although the speaker chooses the *you* pronoun to refer to students, he hedges his speech with evaluative adjectives and intensifying adverbs (***okay****? so let me just put in what that derivative is* [...] *really concentrated****. okay?*** *so typically the dilute, quote unquote, is less than about* […]). Similarly, in the following extract the speaker mitigates speech using *just* (see Lindemann & Mauranen, 1999) and introduces humor to elicit laughter from students, thus favoring conviviality:

> (3) you just have to realize that so if you ever get it that it's zero, just realize it's a straight horizontal line and you just have to take either of the dels and multiply it by the Y **okay?** so that's the only caveat for this. caveat that's a good word <SS LAUGH> that's an excellent word. Any other, words you want to throw up here I can use. caveat wow. there's no quid pro quo that's for sure.<SS LAUGH> I never knew what that meant anyway.

The *Inorganic Chemistry lecture* is delivered by a junior faculty teacher addressing 400 junior undergrads. This large class size can explain the lack of turn-taking counts and the fact that no tags work as response elicitors. Probably for the same reason, the tag is three times more common with textual rather than interpersonal metadiscourse features, as described below.

Because this lecture is highly informational, the professor combines the tag with a simplified grammar pattern that seeks to facilitate lecture comprehension. The tag anticipates ongoing discourse organization through metatextual signposts (***okay****? so, let's look at the metals* […], ***okay***? *now I'm giving you their primary oxidation states*, etc.), and reveals the instructor's authority through *I* vs. *you* pronouns (***okay****? you will get into details of that when you ask questions about those details and the things you want (heard) but not in this course*,

okay?). Similarly, lexical repetitions, exemplifications and formal definitions of key concepts are embedded within a simple syntax that maximizes lecture comprehension while lessening shared knowledge differences:

> (4) ... use that information to design reference blanks. **okay**? a reference blank, to be specific is a sample, that has all the components of your reaction mixture […].
>
> (5) ... some false reference blanks that will be designed, by you. **okay**? what is a false reference blank? okay that is any reference blank that that is incorrectly designed […].
>
> (6) **okay**? so, uh, a incorrectly designed blank test is going to, get involved and start producing other side reactions, **okay?** a good reference blank test is going to produ-produce either no reaction [...]

The *Structure and Reactivity* lecture is also a good example of how the Michigan professors manage to balance instruction and socialization. One hundred students attend this lecture and very few turn-takings occur. In this talk, the female senior faculty chooses the first person pronoun when imparting the lesson, though she uses a casual style in which *okay?* acts as discourse filler linking short subject-verb-object sentences and parallel syntactic constructions that facilitate understanding:

> (7) … and what is the thing that's the indu- doing the inductive effect? the other carboxylic acid group here. **okay**? so I have the partially positive carbon these oxygens more electronegative than carbon and so I have, an electron withdrawing effect, through the bonds, of one carboxylic acid group stabilizing the carboxylate anion in the other case.

Tag clusters also accompany metatalk when this professor shifts topic or uses deduction and clarification statements constructed upon simple paratactic constructions. Such simplified phraseology maximizes lecture comprehension and helps to lessen the conceptual density of the lecture caused by the accumulation of verbs and processes used by the lecturer to explain a scientific procedure:

(8) I'd like to move on then to talk about aminoacids [...] if I were to add acid to that, it would go back to being, this species here, **okay**? so at low P-H I have that form, and I can go on and add more base and that will deprotonate... , so here are my axes again. of relative abundancies on on- abundancies on one axis, P-H on the other. **okay**? and once again I start with the most acidic form.

The professor's instructional speech also combines *okay?* clusters with interpersonal elements such as first person plural pronouns and demonstratives (*equal to the P-K-A of the acid that we're talking about, **okay**? and our equation tells us that* […]), softening directives (***okay**? so now let's see what, it looks like*) and adverbial intensifiers (***okay**? so that this is, considerably more acidic*). As seen below, the presence of clusters illustrates a cohesive linear sequence built up on parallel syntactic constructions that contribute to a more dynamic interaction when reporting facts in a hard science discipline:

(9) **okay**? so this one is almost like methylamine, this one is more acidic than en- methylamine and this one is definitely more acidic than acetic acid.

(10) **okay**? *so we* have A, predominating in this region... we have B, predominating in this region, here we are at C, and we finally get to D.

A similar attempt to balance instruction and socialization is shown by the speaker of *Intro to Engineering* when lecturing 200 junior undergraduates. With very few question and answer periods, tags rather act as discourse fillers that accompany metatalk (***okay?** and I'll fill in what that means a little bit in a minute*). The professor maintains his status with imperatives and rhetorical questions (*so do this go on down to the next divisor eight. **okay**? is ten divisible by eight? no, go on down*), and tag clusters help to draw conclusions, clarify previous statements or highlight important information for students (*I'll check this condition. is ten divisible by five? yes. **okay**? so the condition's not true num's not divisible by D and I'll fall out of the loop*, ***okay**? very important to check your_the return from that scan-F*, etc.).

This instructor makes use of more interpersonal features than those analyzed before. In the extracts below tags correlate with assessment and relevance adjectives as well as adverbial intensifiers (*much more complicated*, *really excited*, *real algorithm*, *special case*), polite directives (*lemme*), epistemic parentheticals and hedges (*I think*, *sort of*, *just*) that convey stance and mitigate power status. In example (13) the professor makes an aside and uses language metaphorically to admit difficulty when understanding new concepts. The *I* vs. *you* dichotomy is replaced by a metaphorical *let's plunge ourselves into darkness* that helps the professor to position interpersonally and achieve affiliation with his audience:

> (11) **okay**? that's sort of all just details of getting information in. here's where the real algorithm starts there's the special case.
>
> (12) lemme show you another code with a much more complicated thing inside this while loop. **okay**? and and I'm really excited by prime numbers today, so I'm gonna show you another prime number code. this one I think it should do the code I just showed you [...]
>
> (13)... I just need to know somehow I need, a way to check if a number's prime or not. **okay**? I want to think that way I want to separate, problems that can be separated, the human mind is finite and I can't think about everything at once. neither can you. let's plunge ourselves into darkness once again, and look at this new code called prime loop.

The *Intro to Physics lecture* takes place in a class with 30 students, but even so there are no tags as response elicitors and no turn-takings. The senior faculty professor monopolizes the floor and is highly informative on the theory of relativity and quantum physics. For instructional reasons, he uses the tag as a discourse filler to introduce textual metadiscourse references thus ensuring his authority position. Using the *I* pronoun, the lecturer provides exemplification and establishes comparisons between Newton's laws and Einstenian relativity (*I throw a ball*. ***okay****? now, uh what you see because I'm moving as I throw the ball in the air, and it comes down and I catch it*). At other

times, he uses lexical repetition and simple subject-verb-complement structures to facilitate comprehension (*the distance between A and B is two hundred meters. **okay?** and the distance between B and the light pulse is one hundred meters*).

These functional purposes of the tag recur throughout the talk and co-occur with other features typical of conversation such as colloquial expressions, spoken discourse markers, disfluencies and grammatical isolates resulting from the pressure of online discourse production. This phraseology illustrates how academic talk is closer to conversational speech than to academic writing (*you'll see what I mean*, *you know*, *well*, *... I'm in oh you know a, a something*…, *okay? now uh what you see* […]). A casual style allows the speaker to position interpersonally and is linguistically realized through the tag co-occurrence with colloquial markers such as *we*-pronouns, intensifying adverbs, imprecise expressions (*thing)*, hedges (*just*) and spoken discourse markers (*well*, *I mean*, *you know*):

> (14) really of course what the length is it's essentially the distance between two points, along this guy's X axis if that's the X axis. **okay**? and what happens is, if we watch this thing go by, we will see ...
>
> (15) **okay**? and we can just use the Pythagorean Theorem to figure out how much well essentially if I just take the hypotenuse ...
>
> (16) **okay**? but now, in order for the light to stay in the clock, of this moving clock I mean somebody's riding along this with thi- this and you know he can see the light ...

A similar conversation-like patterning recurs when the professor uses a vague statement to introduce Einstein's relativity theory (*this so called principle*). In the example below, the *okay?* tag becomes part of a style marked by disfluencies and retrace and repair sentences that help the lecturer to construct a textual persona. Evaluative intensifying adverbs and asides (*really was a powerful principle*, *despite common sense*) perform a clearly phatic function unveiling the professor's stance. Finally, the speaker openly admits the complexity entailed in the theory

and ends up stating *we will simply make two postulates*, thus hiding his voice as an 'expert' in the discipline:

> (17) ... you see, if we wanted to apply this so-called principle of relativity to the theory of light, [...] **okay**? uh, and so, what Einstein did, was, feeling that, this principle of relativity really was a powerful principle. He said despite common sense, what we will assume is, we will simply make two postulates [...]

4. Conclusions

The objective of this study was to explore whether one-word tags displayed similar functional purposes in academic speech to those performed in conversation. Results showed that tags are more common in classroom than in non-class speech events, with a particularly prominent use in lecture classes. These findings indicate that although they are primarily monologic discourse events, lectures do not borrow the formal style of academic writing practices but rather share features of conversational language.

The comparison of lectures across disciplines revealed very similar patterns in the use of tags, possibly attributed to the instructional purposes of these speech events. Furthering Csomay (2002), results showed that the variable 'level of instruction' affects the linguistic realizations of lectures. As Corpus B illustrated, conceptual density packaging – particularly in the lectures of the hard science disciplines – tends to be lessened by means of an informal style. Most lectures were imparted to undergraduate students and the Michigan professors appeared to acknowledge the difficulty of transmitting disciplinary knowledge by framing their informational speech within an easy-to-understand speaking style. This "matter-of-fact informality and casualness of research speech at Michigan" (Swales, 2002) indicates the professors' tendency to create a rapprochement with their audiences of novices.

Quantitative data also revealed that context-based parameters like graduate level and speaker category have an influence on lecture

production as institutional speech. *Okay?* proved to be a more favored discourse feature among those lecturers holding tenure positions and teaching experience seems to lead to a greater awareness of the instructional goal of the lecturing genre, which validates Askehave and Swales's claim that "tertiary institutions become more sensitive to the needs and hopes of their students" (2001: 209).

As Corpus C illustrated, the functional behavior of *okay?* in lecturing speech was similar to that performed by the tag in conversation. Using the tag as response elicitor, professors seek a signal that the message has been understood, a function particularly relevant considering the didactic purposes of lectures. However, the tag rather acts as a discourse filler signaling a transition in the progress of the speech. Interestingly, it co-occurs with textual metadiscourse patterns – organization of the agenda, deduction and hypothesizing, summaries, repetitions, paraphrases and clarification of concepts – that linguistically mark the speakers' interest in lecture comprehension. In addition, tags often correlate with interpersonal metadiscourse elements that reveal attitudinal stance. Such evaluative positioning mitigates the professors' authority voice when initiating students into disciplinary knowledge and disciplinary practices. From a pedagogical perspective, the redress of power imbalance and the re-definition of social roles echoes Swales's (2004: 189) view of 'genre' as "clearly important for the disciplinary acculturation" of those entering a highly specific community of practice.

Drawing on corpus methodology, the present study provides evidence that discourse is affected by the way local communities of practice conceptualize their audiences and, accordingly, map out their speech for different communicative effects. Though the primary communicative goals of lecturing are informing and instructing, the analysis of MICASE proves that there is a further communicative intention, to socialize with novice students entering a particular disciplinary community. These perceptions into the pragmatics of tags illustrate that American lecturers, at least those from a local academic *milieu*, prefer a more conversational style rather than the formality of academic writing when addressing their audiences.

Though further research should deepen into the phraseological elements of academic speech, an important pedagogical consideration

should be raised from this small-scale study. Considering the pragmatic versatility of academic oracy, listening comprehension should foreground those contextual and social aspects involved in institutional communication. Only by this means will non-native students be better acquainted with both the transactional and the interactional aspects of university speech.

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