Text-structuring Metadiscourse Devices and Intonation Cues in Academic Spoken Monologues
Dr Michael Cribb, Coventry University

Summary
UK Higher Education establishments accepted approximately 370,000 international students in 2008/9 (UKCISA, 2011). This number is likely to increase significantly in the future as internationalisation gathers pace and new revenue streams for universities materialise. Most of these students do not have English as a first language and universities invest considerable time and money in providing support classes to augment their studies. Within these classes, students are expected to practice and acquire a range of academic literacy skills including delivering a spoken academic monologue such as an oral presentation which is often a key requirement (Jordan, 1997). An oral presentation typically requires the student to stand in front of class and present a body of information in an academic register for an extended period of time. This monologue will often be judged and graded by the tutor and thus carries significance and value for the student.

Delivering an academic oral presentation is not an easy task. Besides the obvious fear of speaking in front of an audience, an academic monologue requires students to utilise certain verbal skills which are not required for everyday conversation. Thompson (2003) has suggested that lengthy monologues require control over the use of text-structuring metadiscourse devices and intonation cues in order for the listener to understand the larger-scale ‘hierarchical organisation’ of the discourse. Text-structuring metadiscourse includes signposting devices which direct the listener in how to interpret the discourse (e.g. ‘first’, ‘to conclude’). Intonation cues serve to delimit the phonological paragraph (or paratone) with the separation of paragraphs being achieved through changes in pitch, pauses, lengthening of speech and possibly laryngealisation. These discourse structuring cues, when used in a native-like way, help the audience to develop a ‘mental map of the overall organisation of the text’ (Thompson, 2003: 6).

For international students who are not native speakers of English, the lack of control over these discourse structuring cues means that their monologues are often perceived as flat and undifferentiated (Tyler & Bro, 1992) by the audience. The structuring devices are often under-used or applied in ways which confuse the listener, and a hesitant and disfluent delivery can exacerbate this confusion.

This project investigated these discourse structuring devices in non-native oral monologic discourse.

Aims and objectives:

- The investigation of text-structuring metadiscourse and intonation cues in academic monologues delivered by non-native speakers of English.

Research questions:
1. How do intonation cues and discourse markers help to structure and organise monologic discourse
2. How do non-native students of English deploy intonation and discourse markers compared to native speakers? What effect does this have on the comprehensibility of their output?
3. How do Chinese students of English compare with European students of English?
4. What intervention strategies should teachers employ in order to provide a better learning experience for international students?
**Approach**

The proposed project utilised a mixed method design. Quantitative methods were utilised to measure the correlation between the miscues in the discourse structuring features (text-structuring metadiscourse and intonation cues) and the ratings of the presentations by a panel of ‘expert’ judges. Measures of pitch level and range in the students’ output was measured using Speech Analyser software and comparisons made between novice (i.e. student) and expert presenters. Comparisons were also made between European and Chinese students. Qualitative methods employed pre- and post-task interviews with the students, a questionnaire and rating exercise conducted by expert teachers and follow-up interviews with these experts.

1. Ethics was sought and approved. Coventry University’s ethical procedure for data gathering was adhered to at all times.
2. A pilot study was conducted on data gathered from previous years. The data consisted mostly of discourse from European students of English. The pilot study enabled a base-line to be constructed and also afforded familiarisation with the data analysis software.
3. Students on the targeted module were invited to participate in the project. In the end, 22 students were selected for analysis. The mix included a range of European students (mostly French) and Chinese students, as well as a mixed gender split.
   - **Pre-task interviews**: students were interviewed approximately one week before the in-class presentation to determine their previous experience of delivering oral presentations, their understanding of the key constructs, and their preparation for the presentation. This interview (30 min. approx.) was recorded and analysed for content.
   - **Task**: students were recorded in-class while making their oral presentation as part of the assessment for the module. The recordings (5 min. approx.) were transcribed and analysed for the constructs under investigation (i.e. intonation features and discourse markers).
   - **Post-task interviews**: approximately one to two weeks after the task, students attended a post-task interview. The interview was used to determine their opinion of their performance in the task, and to provide feedback on the recording and transcript. The interview (40 min. approx.) was recorded and analysed for content.
   - A short follow-up questionnaire was conducted with the students to obtain their view of the project as a whole.
4. Transcription of recordings and analysis. Intonation analysis was primarily carried out using the SIL Speech Analyzer software. The main focus was pitch level and range. Comparisons were made with expert speakers and between European and Chinese speakers.
5. Independent transcription, intonation and paratone analysis of a sample of recordings was carried out by a co-researcher who has expertise in this type of analysis. This was necessary to ensure a fair and balanced estimation of features was being made.
6. Design and construction of questionnaire for panel of judges. The questionnaire was designed based on principles specified in Dornyei (2007). Construct measures were intonation, discourse markers, comprehensibility and irritation. The questionnaire was piloted on two colleagues and based on their feedback was modified to provide a final draft.
7. A panel of expert judges was assembled. All judges were teachers of English as a foreign language and had experience with the teaching and marking of oral presentations by students. The judges were asked to listen to up to seven samples of discourse taken from the student recordings and asked to rate each sample using the questionnaire outlined above.
8. The final analysis involved correlating the ratings provided by the judges with the intonational and discourse marking features identified in the analysis of the student recordings.

Obtaining participants for the project was somewhat problematic in the initial stages. The stipend for participation clearly had an impact and was necessary.

**Key findings**

**Student Voices**
The student interviews yielded a number of findings:

1. Students rarely fully understand the term intonation. While some can say what the term means, most cannot. For those who said they understood the term, their definitions were often lacking or faulty. The vast majority of the students did not seem to be aware of the discourse structuring function of intonation in oral monologic discourse. Students understood the term ‘discourse markers’ better but again were unable to fully explain its significance to monologues.

2. Students do not spend much time practising their presentations before delivery and any practise is usually within the last few days before the performance. When practise did take place this was often just a case of reading through notes. Occasionally students would practise in front of a colleague or alone at home. None of the students reported practising intonation or their use of discourse markers.

**Review of recordings (student/tutor)**
Many students reported on the benefits of listening to their own recorded voice and discussing features with the investigator. This proved to be a useful pedagogic approach which, although time consuming, could be adapted for class.

**Analysis**
1. The pitch range of students is narrower than ‘expert’ presenters suggesting that they are unable to use the full pitch range in their voice and gain full advantage from it. The reasons for this are as yet not fully clear. Influence from the L1 could be an issue but a separate explanation could be due to performance and/or motivational factors.

2. The pitch ranges of Chinese students and European students do not show significant differences. This is a surprising finding and suggests that students can work within a narrow pitch range provided they have consistency and contrast within this range: consistency in the sense that students mark boundaries in a constant way throughout the presentation and contrast in the sense that there is maximal disjunction between paragraph boundaries.

Research is now being carried out to specifically target the intonation patterns of Chinese students. The question of whether length of stay in the UK has a bearing on these patterns is one of the main research questions. (See point 5 below)

3. Metadiscourse markers can be used to compensate for the non-native’s lack of control of prosodic features. A strategy where metadiscourse markers are over-used in an overt manner may be better than one where the markers are used more covertly. While native speaker often use markers in a restricted way, this may not necessarily be the best strategy for students of English.

4. European students of English often have anomalous nuclear intonation patterns. In particular, the use of ‘upspeak’ features where the nuclear tone is a rising tone is often observed. Whilst this feature can sometimes be observed in native speech, it is not standard and is often used to signal particular in-group identity or as a way of signalling given and new information. While this feature is non-standard, it does not always lead to incomprehensibility or irritation on the part of the listener.
5. Chinese students often produce a ‘staccato’ intonation pattern which may be a result of L1 transfer. Chinese (Mandarin) is a tonal language and syllable-timed. This results in English where each stressed syllable is given a tonal pattern rather than a pitch accent.

**Teacher Voices**
The interview with teachers experienced in teaching and assessing oral presentations has yielded a number of outcomes. Intonation and discourse marking are seen as important but equally so with a number of other presentation skills including pronunciation, coherence, body language and visual aid (design and use). Teachers use a wide range of tasks and activities in class to develop individual skills but the overwhelming opinion was that the skills need to be integrated into a coherent whole in order for the presentation to be effective. Most teachers thought that oral presentations skills were as important as writing and reading skills at university level.

**Outputs**
The website ([www.erhello.org](http://www.erhello.org)) [Accessed May 2014] is a means to disseminate results and outputs to students and teachers. It will be a point of call for students and teachers of presentations skills wishing to learn about intonation and discourse marking, and will enable teachers to download teaching materials.

Cribb, M. Prosodic features of European students of English during PowerPoint presentations. [Paper presented at the ELPHE Research Seminar, December 6 2011]

Cribb, M. Intonation and metadiscourse marking as structuring devices in the academic monologues of non-native speakers of English as an International Language (EIL). [Paper presented at the Sixth Inter-Varietal Applied Corpus Studies (IVACS) group International Conference on Corpora across Linguistics, Leeds Metropolitan University, June 21-22 2012]


**Impacts**
Students learning experience has been enhanced through the feedback they have received. New pedagogical approaches to helping students with oral presentation skills have been adopted, in particular approaches for weaker students.

Tutors in the department have been engaged in a conversation as to what presentations skills are necessary and how we can best teach these. Several colleagues have helped with the design and upkeep of the website.
Visiting scholars from China (JUFE/ZUFE) benefitted from the research when they visited Coventry in July/August 2013 to participate in workshops into intonation and discourse marking in oral monologues. Techniques for conducting research and analysing discourse were taught and the scholars have the opportunity to process data from recordings of their own students.

Small group tutorials and workshops were integrated into the Academic English module to support oral skills for students in academic contexts who need to give presentations. This has shown that not only non-native speakers, but also native speakers need focused practice in oral presentation skills.

**Implications for the student learning experience**

Using intonation and discourse structuring devices is a key skill in delivering effective oral presentations. However, many students are unaware of this and there is little chance for them to practice and get focused feedback in class. Teachers need to provide pro-active intervention strategies which highlight these features and give students the necessary practice to improve.

Some students need targeted assistance with intonation and discourse structuring. Simply providing students with an oral presentation assessment is not enough because students often misunderstand what is required of them. In particular, Chinese students, whether because of cultural or motivational differences, often produce discourse which is perceived as monotonous. Remedial classes may be needed in some cases because the time in class is insufficient.

Several students at Coventry have gone on do either UG or PG dissertations in the area of NNS pronunciation and discourse intonation. These projects have been /are being supervised by the lead researcher.

**References and other resources**

erHELLO.org (<www.erhello.org>): Online resources for oral presentation skills, student and teacher voices, research. [Accessed May 2014]

The erHello.org website is up and running, and fully operational. The site provides online resources for teachers and students who are involved in oral presentation skills. The site also provides a voice for teachers and students who have experience of delivering a presentation or teaching presentation skills. Students who have delivered presentations at Coventry University have been encouraged to blog their experiences via the site. Research articles, teaching notes and conference PowerPoint slides are also available via the site.

www.erhello.org

SFS/RTPITCH Version 1.3: Windows Tool for Real-time Pitch Track (UCL) [Accessed May 2014]


SIL Speech Analyzer: Speech Analyzer is a computer program for acoustic analysis of speech sounds. [Accessed May 2014]

http://www.sil.org/computing/sa/index.htm

Online intonation practice: [Accessed May 2014]

http://www.phon.ucl.ac.uk/home/johnm/oi/oiin.htm


Nesi, H. The recordings and transcriptions used in this study come from the Engineering Lecture Corpus (ELC), which was developed at Coventry University under the directorship of Hilary Nesi with contributions from ELC partner institutions. Corpus development was assisted by funding from the British Council (RC 90) April 2008- August 2010.


