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# FS ≠ FS (Formulaicity and Prosody)

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# FS ≠ FS

## *(Formulaicity and Prosody)*

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Language is part of a human communication system which is based on social interaction. We speak in order to communicate, not to produce linguistic forms, and the actual words we use represent only one of the modalities involved in a communicative act. These spoken lexical tokens are overlaid on an intonational communication pattern and open to modification based on visual and oral feedback. Any cat or dog owner can testify to mammalian sensitivity to tonality in human-pet communication, yet pronunciation (particularly suprasegmental intonation) is a topic which is largely ignored because of the difficulties in approaching it in the classroom.

In her keynote speech to BAAL 2008 Alison Wray mentioned that all early languages were tone languages; and today the majority of surviving languages are indeed tonal in nature. Double the speed of production of a Chinese utterance and the spectrogram representations of both utterances will show a remarkable similarity, since the main intonational effort in Chinese goes into lexical distinction. Double the speed of an English utterance and the likely outcome is a Cauldwellian blur, since in English, intonation can be freed up to signal – among other things - speaker attitude. It is not needed for lexical disambiguation. With regard to Chinese and English, there is therefore an 'intonational gap' to cross.

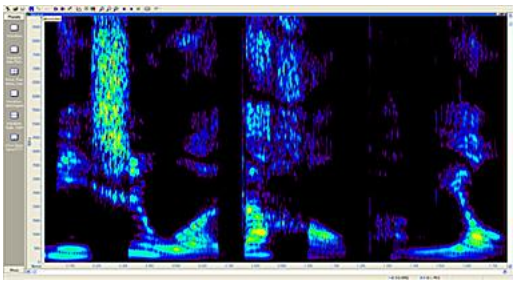

**Figure 1: Chinese - Normal speed, 238 syll/min**

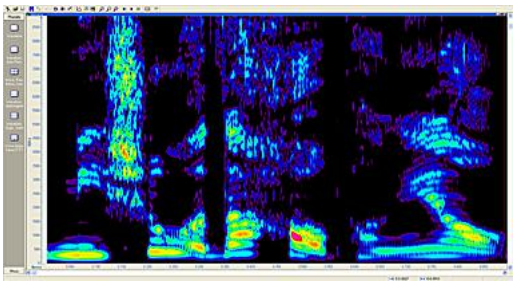

**Figure 2: Chinese – Twice the speed, 471 syll/min**

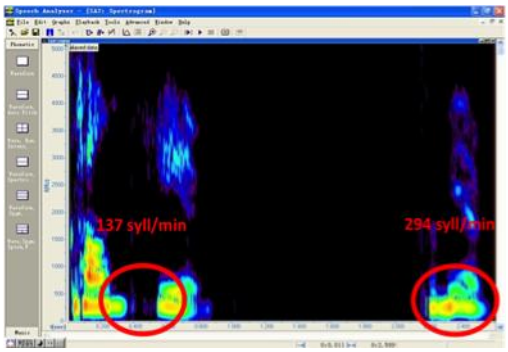


**Figure 3: English - Double speed produces blur**

This problem will be addressed by the Dynamic Speech Corpus (DSC) being developed at the Dublin Institute of Technology. The DSC incorporates natural, unscripted dialogues recorded at industry-standard audio levels (24/192), thus leaving open the possibility of instrumental analysis. The main thrust of the DSC, however, is to provide language learners, course authors and researchers with an asset which provides examples of high quality, native-to-native dialogic fluency, as opposed to scripted, monologic or other speech acts spoken 'under duress', such as during broadcast radio or television programmes. Samples of native speaker (NS) reductions, common in informal speech, can be sought and the utterances played back and compared so as to highlight the phonetic and pragmatic reasons for the phenomenon under investigation. Each utterance can be slowed down (without tonal distortion) so as to highlight the production of the speech act itself rather than simply treat speech as a product in its own right, as is the case with most spoken corpora. The user will subsequently be able to 'zoom' out from the short sequence identified in a KWIC search to study the phonetic and interactional environment in which the utterance was produced.

Initial investigation of the nascent DSC indicates that native speakers, in communication with native listeners, deliver speech in short, speaker-determined units which allow the speaker maximum flexibility in nuancing the evolving, dynamic communication. While there is usually only one speaker at a time in NS-NS communication, there are two listeners, since speakers also monitor and modify their production in the light of interlocutor feedback, both oral and visual. The availability of the slowdown facility allows learners to study the flow of speaker delivery, including pauses for thought, nuancing or correction of mis-communications which become evident in interlocutor feedback. Using the DSC, the learner will be able to study reduced, unstressed sequences in their natural, prosodic environment. The corpus interface, in combination with the slow-down facility, will allow for the blur of unstressed sequences to be studied, and it is precisely these which cause most difficulty for learners of English. Salient sequences are closer to the citation forms of the language which learners have internalised. But unstressed passages are prone to blurring and reduction, and deserve separate, more detailed attention, if learners are ever to integrate into a speech community and turn linguistic ability into communicative ability.

This need becomes most evident in the area of formulaicity, which, according to Erman and Warren, constitutes almost 60% of NS-NS speech. Formulaicity – with its prefabricated units, both syntactic and semantic – facilitates communication by allowing listener attention to concentrate on those sequences which the speaker intends to make more salient. Initial investigation of the DSC reveals that the intonational delivery of formulaic sequences (FSs) themselves can be more important than their lexical realisation. There is evidence for an inverse relationship between speed of delivery and tonal range in sequences. This should not surprise, as any form of salience comes with a production cost. It takes effort to deliberately lengthen a vowel, or change tonal direction or increase intensity – the key physical correlates of salience. By employing the slow-down facility at 40%, in order to afford learners two and a half times as long to listen to the utterance, the semantic element of the sequence is played down and the melody (i.e. prosody) highlighted. Tests with 100 students in China (within the framework of an ongoing PhD thesis) have clearly demonstrated not only the effectiveness of the slow-down with EFL students who have no other access to native speakers, but also a very high degree of learner acceptability.

It is hoped that the inclusion of prosody – specifically speed of delivery and tonal range – into the study of formulaic sequences in natural dialogue will lead to a better understanding of the role of formulaicity in NS-NS interchanges.

Dialogic fluency and the proper use of common, short phrases and formulaic sequences with appropriate intonation patterns can best be learned by a principled exposure to their exemplification in a corpus such as the DSC.

The first prototype of the Dynamic Speech Corpus, which is funded by Enterprise Ireland, is due to be completed by August 2010.

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