

FREQUENCY AND LOUDNESS IN OVERLAPPING TURN ONSET BY WELSH SPEAKERS

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ABSTRACT

This paper considers the frequency and loudness of incomings by next-speakers in overlapping conversation. The speech of Welsh-English bilinguals is examined using a combination of instrumental and impressionistic acoustic analysis. Previous research has found that in some varieties of English, incomings by the next speaker can be designed with high pitch and loud volume. The conversation analytic approach (CA) attempts to combine a sequential and phonetic analysis of the occurrence of overlapping stretches of speech. The results suggest that it is turn-competitive incomings by a next-speaker which are designed with high frequency and loud volume and located early in the current-speaker's turn. Previous research on English has found these same phonetic design features.

Keywords: prosody, talk-in-interaction, conversation analysis, overlap

1. INTRODUCTION

Previous research on overlapping turns in English [6] finds that turn-competitive incomings are designed with high pitch and loud volume and located prior to the final major accented syllable in a current speaker's turn.

The turn constructional unit according to Sacks, Schegloff and Jefferson [3], ends in a point of transition relevance; the point at which the transition to the next speaker first becomes significant. This is indicated phonetically by the transition relevance place (TRP) projecting accent which has been found in English to be the final major accented syllable in an ongoing turn [6]. There has been no investigation into turn delimitation in Welsh, therefore the present study considers overlaps based on occurrence early or late in a turn, usually based on syntactic completion.

Sacks, Schegloff and Jefferson [3] began work on turntaking, and Jefferson [2] outlined environments in which different types of incoming

occur. Her work placed much emphasis on syntactic completion. French and Local [1] found that it is the phonetic design of incomings that illustrate whether it is competitive or non-competitive; high pitch and loud volume indicate turn-competitive design. Wells and Macfarlane [6] expanded on both of these works and suggest that the phonetic features found by French and Local [1] are relevant to the West Midlands English variety, but it is also the location of the incoming which contributes to its treatment. Wells and Macfarlane [6] found that non-competitive incomings most often occur after the final major accented syllable, while competitive incomings are found to occur prior to the final major accented syllable.

2. METHOD

The data (Stammers6) is a 45 minute long conversation which comes from the 40 hour Siarad corpus collected by the ESRC Centre for Research on Bilingualism at Bangor University [4]. The data is a stereo recording between three people: a mother (Heu- Heulwen), father (Ifa- Ifan) and their teenage daughter (Blw- Blodeuwedd) from Bethesda, North Wales.

Frequency was measured using Praat while loudness was observed impressionistically with reference to relative prominence compared with surrounding syllables. F0 was plotted in semitones re 100Hz, Male Participant (Ifa) min: -12, max: 30. Female Participants (Blw and Heu) min: 5, max: 45.

59 transcriptions of speech around overlaps in an enhanced Conversation Analysis (CA) format were produced. The CA transcriptions were similar to Jefferson's [2], the square brackets '[']' marking the beginning and end of the overlapping speech respectively.

3. RESULTS AND DISCUSSION

3.1. Transitional onset

Jefferson [2] described transitional onsets as occurring just after, at, or just before the end of an

utterance. Wells and Macfarlane [6] find that transitional onsets occur after the TRP projecting accent in their West Midlands data and are “non-competitively” designed with non-upgraded pitch and frequency, and treated non-competitively by both speakers.

Transitional onsets can be subdivided into three types: ‘Unmarked Next Position’, ‘Latched; and Terminal, those discussed by Jefferson [2]

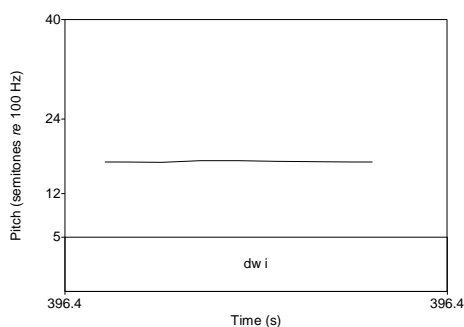
3.1.1. Unmarked next position and latched onset

Unmarked Next Position and Latched onsets are similar in kind. They both occur just after the end of the turn-occupant’s utterance. Unmarked next position onsets occur when a pause occurs after a completed TRP. Unmarked next position onsets make up 3.2% of all of the overlaps in the data set. Latched onsets are very similar, but no pause is found between the speakers, the next speaker ‘latches on’ to the previous speaker’s utterance. In both cases if the original speaker continues talking, an “overlap will occur due to both parties beginning the next turn [6]. Latched Onsets make up 16.8% of all of the overlaps in the data set.

Fragment 1: E10.3 – Unmarked Next Position Onset

- 1 Ifa: ti sti ti isio cael rywun sydd yn
right grefftus efo co:ed yn hyn
sti
you know, you need to get someone
who's quite skilled with wood for
this, right.
(1.9)
- 2→Ifa: [dw: i'n] gwybod am rywun 'sai'n
gallu wneud o de?
I know about someone who'd be able
to do it, right?
- 3→Blw: [dw i]
I-
- 4 Ifa: 'sai Charlie yn gallu wneud o.
Charlie would be able to do it.

Figure 1: F0 trace of Unmarked Next Position Onset.



Ifa in line 1 ends his turn with the tag ‘sti’, illustrating his syntactic completion of the TRP. Blw and Ifa begin simultaneously after a pause of

1.9 seconds. Blw comes in with non-upgraded frequency and volume; treating her own incoming as non-competitive. However at this point, Ifa starts again, with lengthened vowel quality (durational characteristics are found to be indicative of avoiding the signaling of transition relevance, and seem to be used here to indicate a continuation of talk [5]- perhaps providing evidence for Blw dropping out almost immediately).

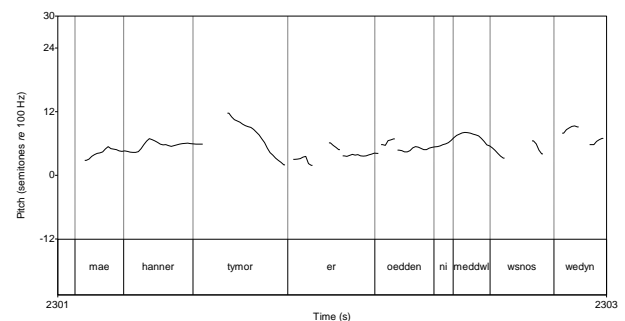
3.1.2. Terminal onset

Terminal Onsets make up 11.9% of all of the overlaps in the data set. The incoming is usually not high in frequency or loud in volume, and is viewed by both the turn occupant and the turn recipient as not turn competitive in its phonetic design, by the current speaker finishing their turn as usual [6]. Instead, the turn-recipient seemingly anticipates the turn-occupant’s completion point and comes in just slightly before the end of the current speaker’s turn. Fragment 2 shows how the anticipation is made on contextual grounds.

Fragment 2: E52.13 –Terminal Onset (contextual)

- 11 Ifa: mae dan ni dan ni 'di wneud mess
efo'r um: (.) [hanner tymor] cofia
we've made a mess with the half
term, remember
- 12 Heu: [efo be]?
with what?
- 13→ be ti feddwl mess efo[hanner tymor]
what do you mean, a mess with half-
term?
- 14→Ifa: [mae hanner
tymor] er oedden ni meddwl wsnos
wedyn oedd hanner tymor doedden?
Half term is- we thought half
term was the week after, didn't we?

Figure 2: F0 trace of Terminal Onset.



The overlap in line 14 could be explained due to the final two words of Heu’s utterance being predictable from the situational context. The repair in line 11 provides the information for the overlapping line in 14. The examples in the study

of these types of terminal onset are oriented by the participants unanimously as complete, neither attempting to reclaim or increase volume; the incomings are non-competitive.

All of the examples of transitional onset in the data are designed by the next speaker as non-competitive; with non-upgraded pitch and volume, and treated as such by the participants, by the original turn-occupant stopping their original turn.

3.2. Interjacent onset

Interjacent onsets occur when the turn-recipient comes in during the turn-occupant's turn, but the incoming comes far earlier in the turn.

3.2.1. Progressional interjacent onset

Progressional onsets occur when the turn-occupant becomes dysfluent, and the turn-recipient takes advantage and decides to come in. There are two types of dysfluency; those around hesitations (when the 'turn-occupant pauses mid-utterance') and those around stutters [6].

Fragment 3: E34.4 – Progressional Interjacent Onset around a hesitation

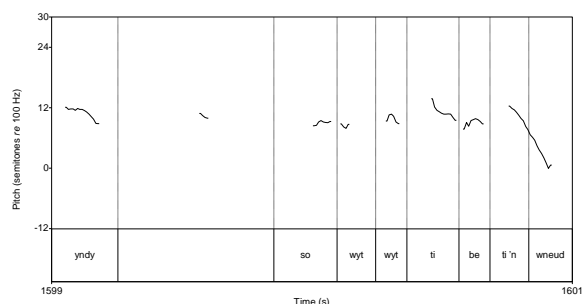
1 Ifa: 'sai .p 'sai Graham iwsio hwnna
wedyd bysai boreau?
*Graham would use that then,
wouldn't he, in the mornings?*

2→Heu: ie achos mae'n dipyn o: logistics
yn dydy fel mae
(0.7)
*yes, because it's bit of a matter
of logistics, isn't it, as it is,*

3→ [rhwnɡ] y [tri ohonon ni isio
defnyddio'r]
*between the three of us wanting to
use the-*

4→Ifa: [yndy](.)[so wyt. wyt ti be ti
wneud?]
yes. so what do you do?
{loud →}

Figure 3: F0 trace of Progressional Onset around hesitation.



In Fragment 3, there is high frequency and a delayed increase in volume by the turn-recipient

Ifa in line 4 who is perhaps attempting to illustrate that he is encouraging the flow of conversation.

The same phonetic features are found around stutters in the data set. Progressional onsets around hesitations and stutters make up only 7.6% of the data. The progressional onsets which occur early in a turn can display only one of the features of "competition", as in the fragment above, and perhaps the presence of just one of these features (either high frequency or loud volume) is indicative of support rather than competition.

3.2.2. Thrust projective recognitional onset

Recognitional onsets occur when a next-speaker feels that the first speaker has reached a point of 'semantic adequacy' [6] resulting in a whole phrase being overlapped. Examples of Thrust Projective Recognitional onset in the study are always found to be designed with high frequency and loud volume, and are located relatively early in a turn. They make up 29.2% of the tokens of overlap. We can assume that the fact that the speakers in the study come in so early in the original turn is indicative that they are placing their turns competitively before any major syntactic or pragmatic completion has occurred, as below. Thrust Projective Recognitional Onsets designed competitively make up 29.2% of the data set.

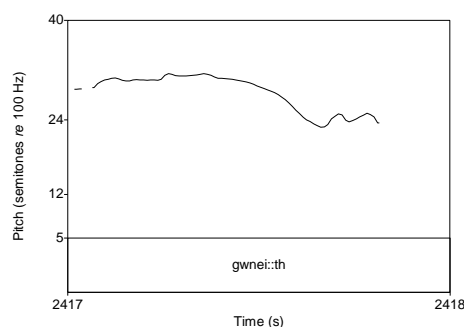
Fragment 4: E54.29 – Thrust Projective Recognitional Onset

28→Ifa: (xxx) ((laughs)) na .ti wneith
Graham 'im codi yn enwedig os
[dan ni]
*no Graham won't get up, especially
if we-*

29→Heu: [gwnei::th]
he will!
(loud)

30→Ifa: yn enwedig os (xxx) password y
comp[ut-]
*especially if (xxx) the computer
password-*

Figure 4: F0 trace of Thrust Projective Recog. Onset.



Heu begins in line 29 before Ifa completes his turn. She comes in with high frequency and loud volume.

These incomings are unanimously designed with *both* high frequency and loud volume, and occur early in the original-speakers turn. They are oriented to as competitive by both original and next-speaker; the original speaker either a) stops and begins again after the next speaker finishes, or b) continues and increases frequency and volume to indicate an attempt to reclaim his turn. These features follow the patterns found by [6] for turn-competition for English.

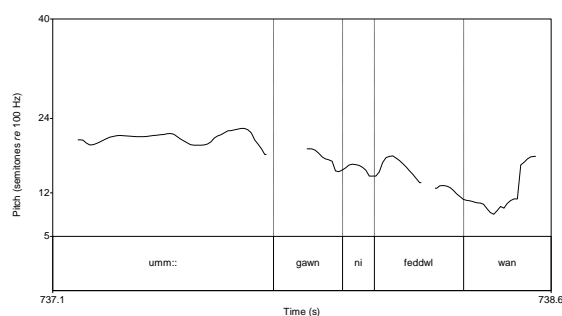
3.3. Blind spot onset

In this type of onset, the turn-recipient's incoming starts just 'fractionally after the start of further talk by the previous turn-occupant' following a complete turn and pause [6]. They are designed with non-upgraded phonetic properties by the next-speaker. Blind Spot Onsets actually make up 18.9% of the overlaps in the data set.

Fragment 5: E18.4 – Blind Spot Onset

1 Blw: be ddylai fi gael i fwyta Mammy
what should I have to eat, Mammy?
 2→Heu: umm: [gawn ni feddwl wan].
um, let's think now.
 3→Blw: [dw i isio risotto] ond dw i
 o hyd roid shitloads o caws
 yn risotto.
*I want risotto, but I always put
 shitloads of cheese in risotto.*
 {loud}

Figure 5: F0 trace of Blind Spot Onset.



In Fragment 5 we see Heu use non-upgraded frequency and loudness. This behavior is indicative of a non-competitive blind spot onset by the next speaker. Occurrences of blind spot onset are found to be designed with non-upgraded frequency and loudness.

Treatment of blind spot incomings by the original turn occupant varies. The turn-occupant can increase their volume to compete with the

interruption, or maintain non-upgraded, non-competitive behaviour.

4. CONCLUSION

The results suggest that for the data set, these speakers of Bethesda Welsh use similar features to those found by [6]; that a turn is treated as competitive if it is designed with relatively high frequency and loud volume. Those which are not treated as competitive are designed with non-upgraded pitch and volume.

Turn competitive incomings make up 29.2% of the data, regular non-competitive incomings make up 44.3% of the data, and the remaining 26.5% is made up of overlapping turns occurring around dysfluencies (in which case they may be designedly "supportive"; displaying either high frequency *or* loud volume), or occur as "blind spot onsets".

Furthermore, the turn competitive incomings seem to occur early in the turn before any (at least syntactic) TRP has been projected. Little is known about the phonetic design of overlapping incomings in other languages; further research could illustrate similar (or different) patterns. If different then we could consider the influence of English on Welsh in the bilingual communities in which it is spoken.

5. ACKNOWLEDGEMENTS

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6. REFERENCES

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