

Putting it all together: parametric phonetics and the organisation of talk-in-interaction

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Introduction

- It is timely to explore organisation and functioning phonetic detail of talk-in-interaction as a phenomenon in its own right;
- phonetic organisation of talk is a *resource* for speakers in everyday conversation.

Take-home message

Phonetic aspects of language should *in the first instance* be understood as shaped by interactional considerations.

Some interactional data

- Turn co-completion
- Turn management: stand-alone 'so'
- Sequence management: turn-beginning 'and'

Turn co-completion

once those cameras start flashing particularly with the infants it puts them off

but when we walk out of the class nobody knows what went on

we're not going to get back 'til like morning

There is nothing particularly remarkable about these stretches of coherent speech – except that they are jointly accomplished by two speakers rather than one.

Turn co-completion

(1) C&M Xmas Photo

K: once those cameras start flashing particularly with the infants .hh

C: it puts them off

K: it puts them off and i[t it's such a [s h a m e]

C: [yeh [yeh uh [people were]

doing that last Wednesday



Turn co-completion

(2) Two Girls 5

Bee: .hhh and we nod when he wants us to say yes (h)e[n] .hhh

Ava: [ye]ah

Bee: we raise our hands when he wants to take a poll [.hh you know

Ava: [mm

Bee: **but when we walk out of the class**

Ava: **nobody knows what went on**



Turn co-construction

(3) YLT Monday 1999 Choral

J: and then like we don't .hhhh I mean I don't know when (0.5) b we're
not going to get back 'til like (.) **M[onday morning]**

R: **[Monday morning]**

(.)

R: I know



Turn co-completion

- participants systematically attend to the moment-by moment evolution of complexes of parametric phonetic detail and what that detail encodes about other levels of linguistic organisation so that they can locate the precise temporal moment to begin their talk;
- participants can entrain the rate, rhythm and timing of their speech to that which has just been produced by another speaker.

Turn co-completion

In attempting to produce a collaborative completion a speaker is confronted with a number of interactional problems:

- they must show that the talk they are producing is meant to be a continuation of the prior talk and not some new development;
- they must design it in ways which renders it a possible completion.

Turn co-completion

On finding that their talk is being collaboratively completed a participant is also confronted with a number of interactional problems:

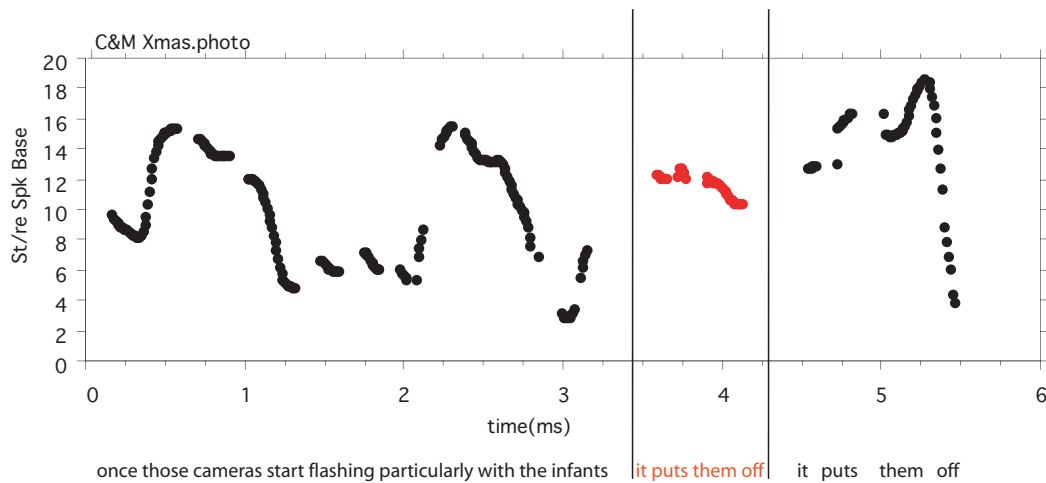
- the completion might not turn out to be what the speaker 'was going to say';
- not only is the incoming speaker bringing the turn to a possible completion, they are potentially bringing the activity, which the turn-in-progress was undertaking, to a completion.

Turn co-completion

Talk which completes another's turns is:

1. not slower than the talk they complete (or than any redoing of collaborative by coparticipant)
2. not louder than the talk it completes
3. rhythmically integrated with prior talk
4. narrower in pitch range than the talk it completes
5. closely pitch-integrated with prior talk
6. designed with overall pitch contours which are the same as those which can constitute complete turns and transition relevance places.

Turn co-completion



Turn co-completion: why do things like this matter?

- participants systematically produce and attend to all sorts of non-lexical phonetic detail in the on-line construction and understanding of what is being said, why it is being said and what sort of functions it has
- such phonetic detail no less 'linguistic' or meaning-bearing than those details of the speech signal that express lexical items
- models of the organisation of language which concentrate on lexical distinctiveness under-determine the competencies of participants and the cognitive processes involved

Stand-alone 'so' in American English

(4) En4310-1272

A: and he was good at breeding them
(0.7)

B: uh huh
(0.2)

A: **so**
(0.3)

B: oh well that's [good

A: [so but when you went up to Connecticut all was well

(5) En5788-583

A: I was really cold I was like listen my parents are here
I can't talk to you bye
(0.6)

A: .hhh
(.)

A: **so**
(0.9)

A: then (0.5) I had forgiven him but it still like just hurt

Stand-alone 'so' in American English

Stand-alone 'so' is variable in terms of its phonetic make-up

- vocalic quality
- duration
- laryngeal behaviour
- pitch contour
- presence/absence of final glottal closures
- presence/absence of final supra-glottal closures
- pitch relationships with surrounding talk
- loudness relationships with surrounding talk



Stand-alone 'so' in American English

Is this variation organised?

- If the sequential-interactional context is taken into account, it is clear that these differences in the phonetic shape of 'so' represent a particular kind of systematic lawful variation.
- Implicated in management of turn-taking and sequential closure of topics.

Stand-alone 'so' in American English

(6) En6033-1127

A: I said (0.4) what's the best (0.4) to do (0.3) take the freeway (0.2)
.hhh or go and take the city streets (0.4) the city streets
(0.3) don't take the freeway (0.3) you know and
so I thought (.) okay you know because that's (.) you know
(0.2) high rise [you know] and I thought

B: [mm hm]

A: .hhhhhhhhh
(0.4)

A: so
(0.4)

A: I started out (.) oh my gosh (0.2) pt< .hhh I [got I]

B: [mmmmmmmmmm]

A: was just (.) I'm in (0.4) you know where I work it's right down town



Stand-alone 'so' in American English

(7) En4074-695

A: it has an offboard power supply which they didn't steal (0.5)

B: hhhh[h

A: [which makes the thing that they stole absolutely worthless
(1.1)

A: [huh huh

B: [hah

B: hh

(0.5)

B: .hhhhh

(.)

A: .hhhhhh

(0.2)

A: so

(0.2)

B: bizarre

(0.2)

B: bizarre



Stand-alone 'so' in American English

The phonetic design of these 'so' tokens has a consistent relationship with contrasting communicative functions:

- one where the same speaker continues with more on-topic talk — *holding-'so'*
- one where there may be a change in speakership — *trailoff-'so'*

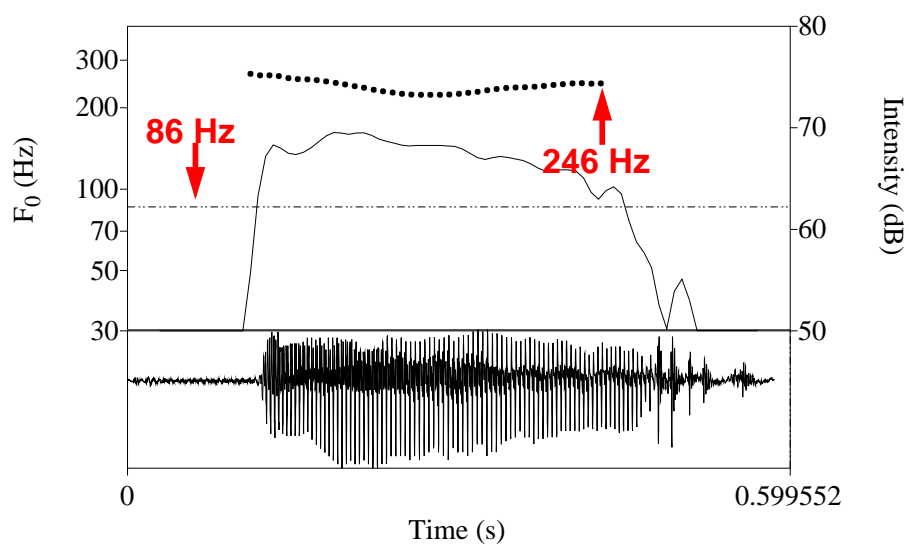
Stand-alone 'so' in American English

Holding- "so" tokens

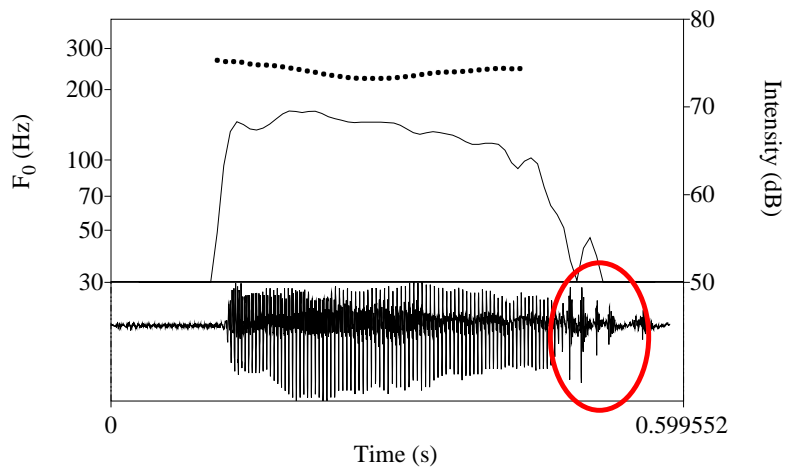
1. are noticeably *louder* than the same speaker's preceding talk
2. are noticeably *higher in pitch* than the same speaker's preceding talk
3. have *final glottal closure* which may, but need not, be accompanied by oral closure
4. may have a *short period of final creaky voice* before the final glottal closure but never elsewhere in the token
5. have pitch which may be *level, falling or falling-rising*

Stand-alone 'so' in American English

Holding- 'so'



Stand-alone 'so' in American English



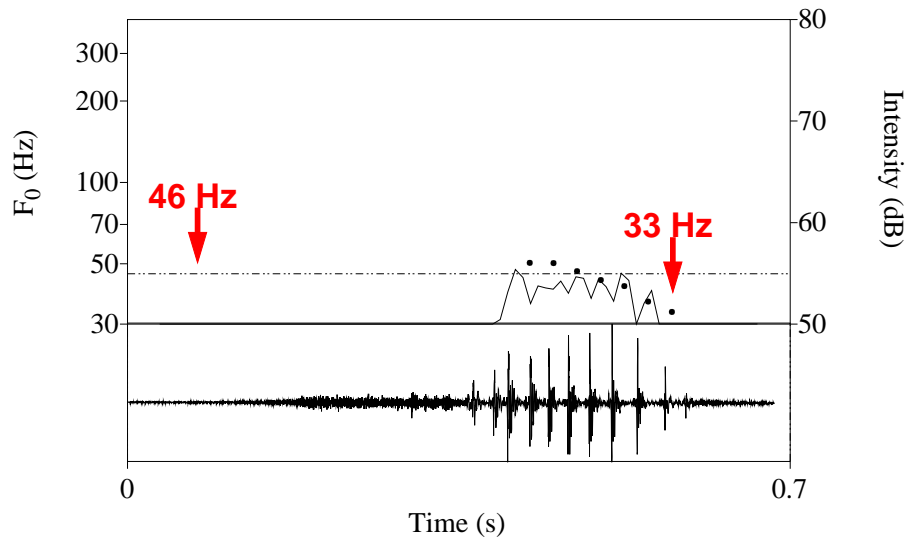
Stand-alone 'so' in American English

Trailoff- "so" tokens

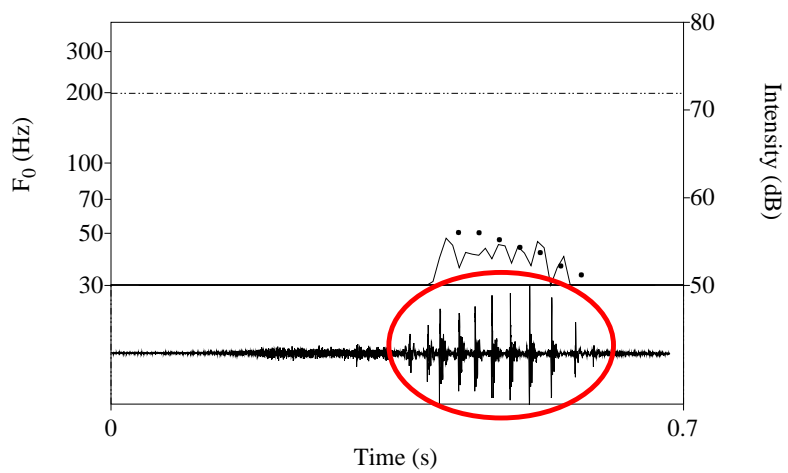
1. are noticeably *quieter* than the same speaker's preceding talk
2. are noticeably *lower in pitch* than the same speaker's preceding talk
3. *never have final glottal closure*, though some have accompanying labial oral closure with voiceless egressive nasal airflow
4. may have *creaky voice initially, medially, finally or throughout* the whole of the voiced part of the token
5. have pitch which may be *level, falling or falling-rising*

Stand-alone 'so' in American English

Trailoff-'so'



Stand-alone 'so' in American English



Stand-alone 'so' in American English

(8) En4686-340

B: I think I'll give him a call (0.5) next (0.4) next [coup] this weekend

A: [yeah]

A: yeah just to (0.4) surprise him
(0.5)

B: yeah

A: act act better than him by giving him a call you know what I mean
(0.2)

B: yeah
(0.5)

B: yeah
(1.0)

A: so
(0.5)

A: how's mom and dad

B: doing pretty good



Standalone 'so'

The actions which are accomplished through turns at talk are done in sequences of turns.


Sequential position of a turn is a crucial determinant of how it is structured, understood and dealt with by co-participants.

If we enrich our concept of linguistic 'context' to include sequential organisation we can develop a motivated analysis of the relationships between phonetic detail and 'communicative function'.

Turn-beginning *and*

Forms of *and*

- (a) 

- (b) 

Turn-beginning *and*

(9) Szcz.sausages

Pa: **and** we'd waited four hours for lunch

Ro: (0.3) ((cough))

Be: (0.7) ((cough))
(1.0)

Ro: two hours for the beer
(2.0)

Pa: **and** it was freezing cold to boot remember that

Ro: **and** there was a hell of a noise going on because
they were (.) doing alterations

Be: **and** were bang bang banging away

(10) Holt.5.88.1.5.9



Les: funny little boy

Rob: yes



Les: **and** mum's a bit odd too



Turn-beginning *and*

-   Ron: uhm Leslie the reason why I'm phoning is I'm just wondering whether you might be a hu- able to help a family in u-Upper Rayley .hhhh who've had rather a tragedy (0.2) t.hhh uhm (0.2) their youngest son was killed on the Upper Rayley bypas[s
- Les: [some years ago
(0.2)
- Ron: couple of weeks ag[o
- Les: [.t oh couple of weeks ago there's another
one yes.hh[hh
- Ron: [.hhh and u-[uh-
- Les: [how old is he- was he
(.)
- Ron: i- sorry
- Les: .hhhhhhh how old was h[e
- Ron: [he was just twenty
- Les: .m.t ah.h
- Ron: .hhh (.) and um .hhhh (.) I was talking to the mother hh uhm
u-hu-ih-u-her name is Mrs Sorrin Mrs Noel Sorrin .h[hh
- Les: [yes
- Ron: uhm uh- up until this point they'd had no connection with the church
at all

Turn-beginning *and*

-   PW: se- senior people in CDC: (.) uh- Atlanta are very uhm (.) .hhhhh are not sure whether we're going to win this (.) uhm (0.4) uh against this virus or no[t
- JJ: [CDC being
(.)
- PW: uh- CDC Atlanta uhm pt communicable disease [centre it]'s uh-
- JJ: [uyes mm]
- PW: it's very (.) important an and very good institution
(.) .hh[h
- JJ: [well[-
- PW: [.h and uh (0.3) I think that (.) t taking quarantine measures
(.) uhm for people coming to our .hhh schools or or even universities (.)
.hhh from countries where there are chains of infection of (.) uhm (.)
this virus such as (.) in (0.3) Hongkong and China and Singapore
(.) .hhhhh (.) I mean I think that's just uh- (0.2) a sensible decision
because that is the only .hhhhh the only measure we can take at the moment
(0.2)
- JJ: well thank you for that

Turn-beginning *and*

Forms of turn-beginning *and*

[əʌ əŋ əm əŋ əŋ ənd ən n: ẽ]

- variable accentuation
- variable vowel quality
- variable presence of alveolar plosive
- variable combinations of nasality and place of articulation
- may just have prolonged nasality and syllabicity



Turn-beginning *and*

The first syllable of *and-uh(m)* is characterized by the following features [ʔa:nd ən:d ʔə:n:d]

- preceding audible inbreath
- creaky voice and/or complete glottal closure at the beginning of the vowel
- a full (not reduced/centralized) open front vowel [a]
- a noticeable period of sequenced alveolar nasality (i.e. [n])
- noticeable, orally released, alveolar plosion [d] at the join between *and* and *uhm*
- relatively level pitch
- slower than surrounding talk

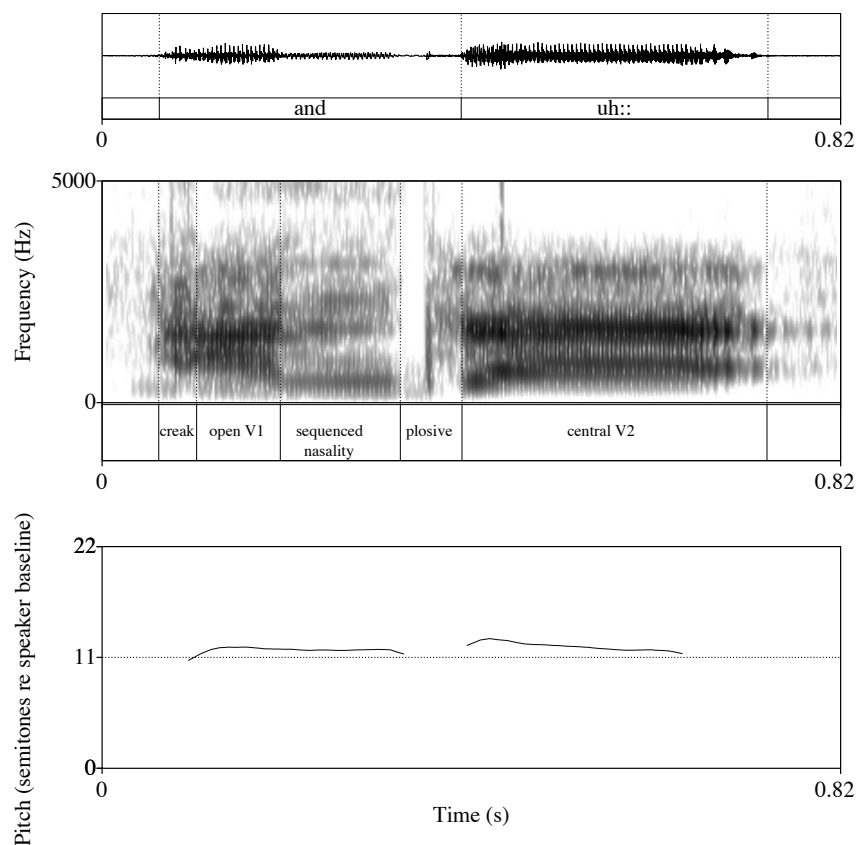


Turn-beginning *and*

The second syllable of *and-uhm* is characterized by the following features

- a central to back-of-central open vowel e.g. [ə ɜ ʌ]
- no glottal closure at the vowel onset (preceding apical plosive released into vowel)
- relatively level pitch (typically within 2 semitones of the pitch of preceding *and*)

Turn-beginning *and*



Conclusion

- We can develop a more refined view of phonetic organisation by explicitly grounding accounts of phonetic form in their sequential contexts in everyday talk
- Variation in phonetic design is one of the *orderly* details of spontaneous everyday conversation