Divergent units and fuzzy boundaries

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WHAT DO WE MEAN BY DIVERGENT UNITS AND FUZZY BOUNDARIES?

- **Divergent units**: non-convergent segmentation points over all kinds of observable, structured, behaviour:
  - prosodic and phonetic
  - syntactic, lexical, verbal
  - gesture, gaze and other bodily-visual behaviours
  - sequence, action
- **Fuzzy boundary**: where it’s not possible to classify something (or ‘in between’ categories)
OVERVIEW OF COMMON FINDINGS

- Apparently messy (*) data frequently patterns regularly, and is used to do particular interactional tasks, especially those whose formal exponents rely on phrasing: increments, trail-offs, add-ons, non-add-ons, etc.
- Several papers use bodily behaviour as evidence alongside linguistic evidence.
- Multimodal divergent units serve well as a projection device, which enables co-participants to have agency (not just to be passive recipients)
- Non-convergent boundaries/units provide structural richness which is a resource for participants in interaction

(*) i.e. not compliant with the traditional kinds of categories of linguistics etc.

SEGMENTATION IN ANOTHER DOMAIN: PHONETICS

- Segmentation is not necessarily linguistically informative. Information is distributed: the [±voice] contrast is realised by a cluster of features: a simple phonological contrast has complex phonetic exponents
- “The listener aims to arrive at meaning, not at a complete linguistic description, so he or she will accept the most probable meaning as soon as the overall evidence matches the expected sound pattern well enough.” (Hawkins 2003: 391)


DIVERGENT UNITS/FUZZY BOUNDARIES IN PHONETIC SEGMENTATION

**ETCH - EDGE (NZ)**

- Short vowel
- Long closure
- Glottalisation
- Shorter friction
- Higher resonance

- Long vowel
- Short closure
- Voicing in closure
- Longer friction
- Lower resonance
DIVERGENT UNITS/FUZZY BOUNDARIES IN PHONETIC SEGMENTATION

ETCH - EDGE (NZ)

- VOICELESS PLOSIVE ALREADY PROJECTABLE IN 'VOWEL'
- Windows not points

- Short vowel
- Long closure
- Glottalisation
- Shorter friction
- Higher resonance
- Longer friction
- Lower resonance

short closure
voicing in closure
WHAT ARE THE ADVANTAGES OF DIVERGENT UNITS AND FUZZY BOUNDARIES?

- Gestalts are understood and processed more easily (Holler & Levinson 2019) and are perceived more robustly in difficult listening conditions (Hawkins 2003, 2010, 2014)
- They enable turns at talk to be structured and parsed, and related to one another (e.g. sí+pero, oh+okay) with both retrospective and prospective actions
  - adopting a stance towards a prior turn
  - projecting some next action or next speaker
- The formation and development of new linguistic practices

NON-CONGRUENT BOUNDARIES = INFORMATIONAL (SEMIOTIC) RICHNESS
CONCLUSIONS

PROSPECT

- Informational richness is a resource, not a problem.
- Develop not just an understanding of units, boundaries or other forms of segmentation; but also an understanding of how these implement actions and handle emerging relevancies in talk.
- Develop more explicit accounts of how multimodal gestalts (constructions, formations, designs) are produced and perceived.
- What are the similarities and differences across languages? What is the status of terms like ‘trail-off’ when the phonetics of ‘trail-off’ is different in different languages?