Class 3 (Week 1, R): Upwards interfaces III, alternatives to the edge-driven model

To do
- Read Lloret 2004 for Tuesday.

Overview: Proposals that don't use edges, or don't even use domains.

1. Zec & Inkelas 1990: arboreal mapping—this one already doesn't use edges

- Hausa example (Afro-Asiatic; Nigeria, Niger, Burkina Faso & more; 25 million speakers plus many millions of L2 speakers; Ethnologue & Gordon 2005)
- Emphatic particle *fa* cliticizes to end of p-phrase (p. 369):

(Audu **fa**)φ (ya tafi)φ 'Audu left'
Audu fa he leave

(Ya sayi **fa**)φ (babban tebur)φ 'He bought a big table'
he bought fa big table

*Ya sayi **fa** teburin unless *teburin* is "intonationally emphasized" [i.e., focus?]
he bought fa table

- o Ideas for what rules out the last one?
- o Whatever we came up with probably won't explain why this is ruled out too:

*Ya sayi **fa** teburin jiya
he bought fa table yesterday

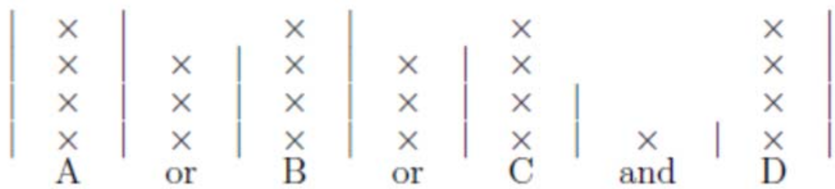
- Z&I argue that it's all about *branchingness* (algorithm from p. 370, originally from Inkelas 1988)
  - intonationally emphasized item gets its own p-phrase
  - "from the bottom up", a branching node gets its own p-phrase
  - a p-phrase can't contain an XP boundary unless it includes all the material from each XP

- o Let's apply it to the four sentences above

- Inkelas & Zec 1995 acknowledge that this approach doesn't work well for all languages ("cases in which branchingness is not relevant for phrasing", p. 542). Moreover, the algorithm above was specific to Hausa.
  - To me, this suggests an OT translation

2. Wagner 2005: relational domains

- Main idea: syntactic relations matter, rather than edges (Chen 1990 is an important precursor)
- No different labels for domains (p-phrase, intonational phrase, etc.)
- Rather, domains are just bigger or smaller—result is a grid whose rows don't have labels, like so:

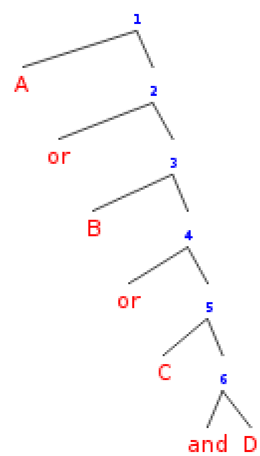


(p. 190)

- The lines are a way of representing bracketing, i.e.

(	x	)(	x		x	)(	x		x		x		x	)	3 big constituents
(	x	)(	x	)(	x	)(	x	)(	x		x		x	)	5 smaller ones
(	x	)(	x	)(	x	)(	x	)(	x	)(	x		x	)	6 even smaller ones
(	x	)(	x	)(	x	)(	x	)(	x	)(	x	)(	x	)	7 of the smallest ones
	A		or		B		or		C		and		D		

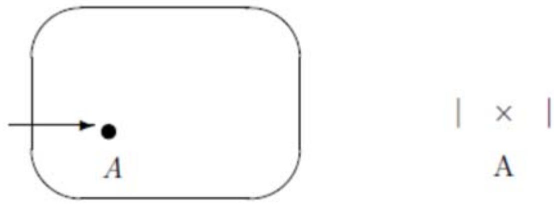
- o Just for practice, draw the prosodic tree.



- The about is for the phrase *A or B or (C and D)*. Syntactically:
- How do we get from the syntactic tree to the prosodic tree?
  - Build a prosodic constituent for each syntactic cycle
  - An "associative domain" (series of *or*s, series of *and*s) is a cycle
  - Thus, *(C and D)* is a cycle
  - *A or B or (C and D)* is another cycle

- Here's how structure-building works within a single cycle

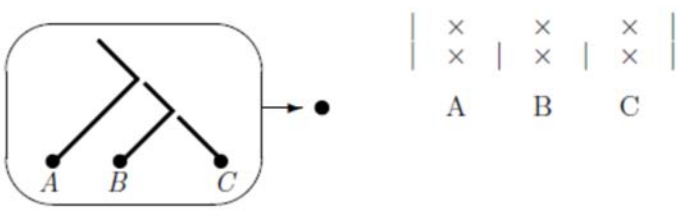
start



First merge

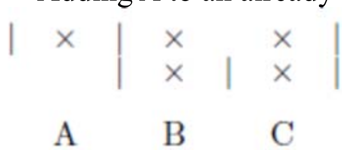
Second merge

Spell-out: adds a new grid line



(pp. 74-75)

- Adding *A* to an already-spelled-out cycle *B C*:



(p. ?), then fill in space at bottom of column, then add another row on top at the end of the cycle

- The result (I think this is a result, and not an additional principle), is…

  "Scopally Determined Boundary Rank (SBR):

  If Boundary Rank at a given level of embedding is *n*, the rank of the boundaries between constitutents of the next higher level is *n*+1" (p. 109)

- For example (p. 163—numbers on the right indicate boundary rank):

		A B C D		
1	A or B or C or D	1	1	1
2	A or (B and C) or D	2	1	2
3	A or B or (C and D)	**2**	2	1
4	(A and B) or C or D	1	2	**2**
5	(A and B) or (C or D)	1	**2**	1
6	(A and B and C) or D	1	1	**2**
7	A or (B and C and D)	**2**	1	1
8	((A or B) and C) or D)	1	2	3
9	(A and (B or C)) or D	2	1	3
10	A or ((B or C) and D)	3	1	2
11	A or (B and (C or D))	3	2	1

Note the non-local effects: compare A-B boundaries in #7 and #11

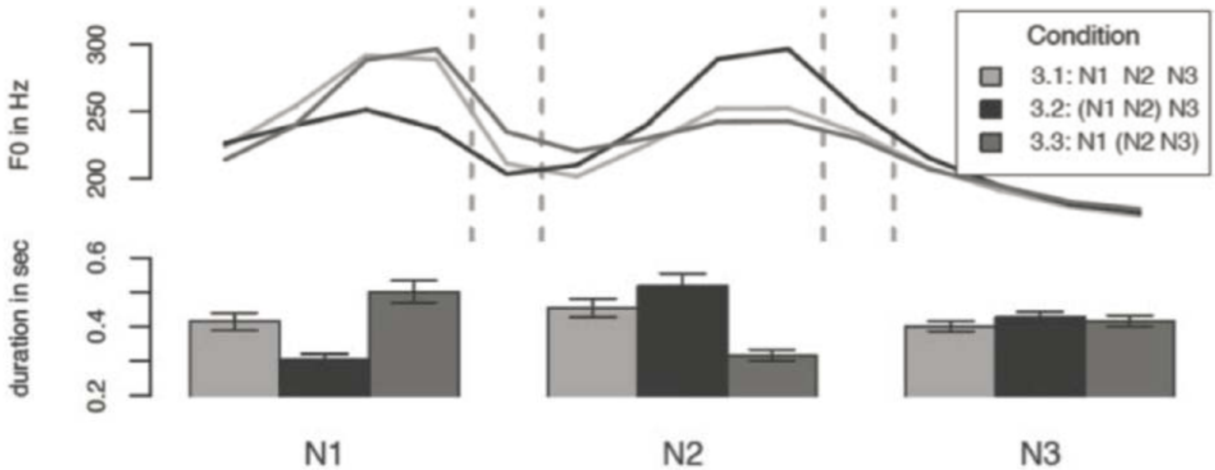
3. Kentner & Féry 2013: Proximity/Similarity model

- Proximity: weaken prosodic boundary after a terminal *x* if (1) *x* is not a child of the root node and (2) *x* is followed by a sister that either is a terminal or dominates a terminal
- Anti-proximity: strengthen boundary after *x* if the following terminal *y* is not *x*'s sister (p. 282)
- Similarity: strengthen boundary after *x* if it has a complex sister

o Let's try it on these items (German). K&F assume ternary branching for the first one.

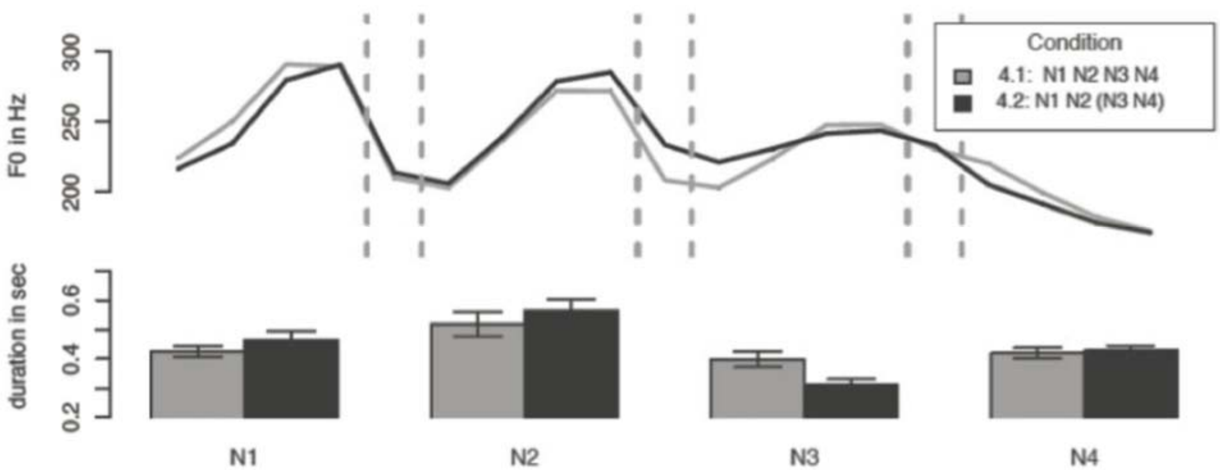
(9) 3.1 N1 N2 N3 — *Nino oder Willi oder Mila*
3.2 (N1 N2) N3 — *(Nino und Willi) oder Mila*
3.3 N1 (N2 N3) — *Nino oder (Willi und Mila)* (p. 284)

- Production study, looking at duration and pitch:



(p. 288)

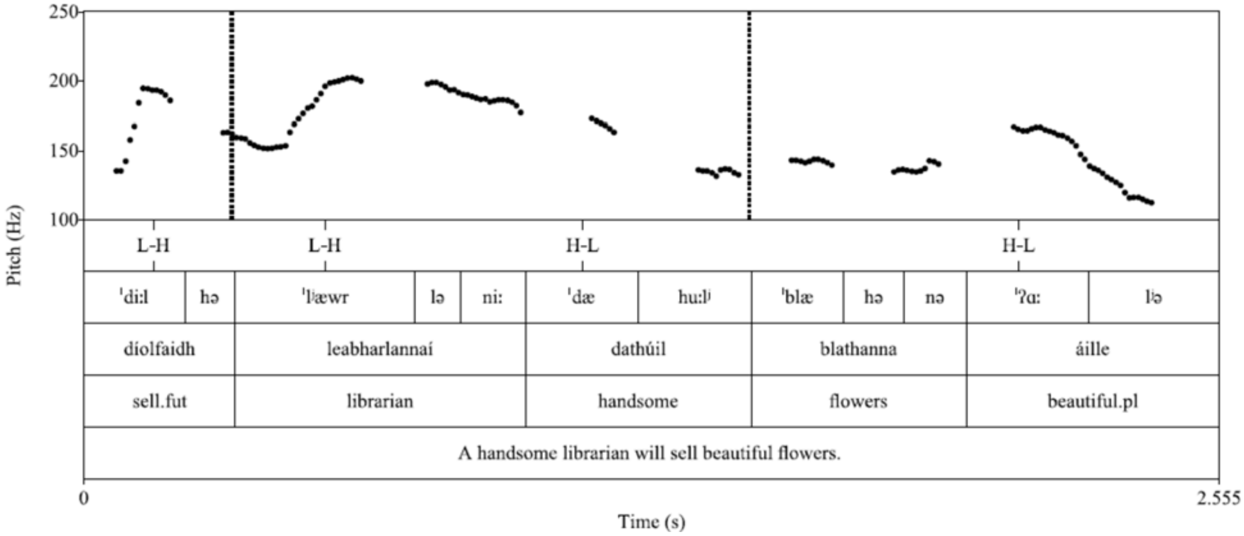
- An example where this makes different predictions from Wagner's SBR:
  - N1 or N2 or (N3 and N4)
  - We've already seen what the SBR predicts (first boundary = second boundary > third boundary). How about Similarity/Proximity?
  - Here are the results—is there a clear winner? (note that both theories predict all three boundaries are of equal strength for condition 4.1, so we can use that as a baseline to compare 4.2 to)



(p. 290)

4. Elfner 2015: direct mapping of syntactic constituency to phonological constituency

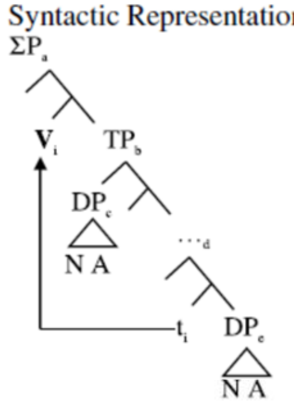
- Connemara Irish: p-phrase begins with LH, ends with HL



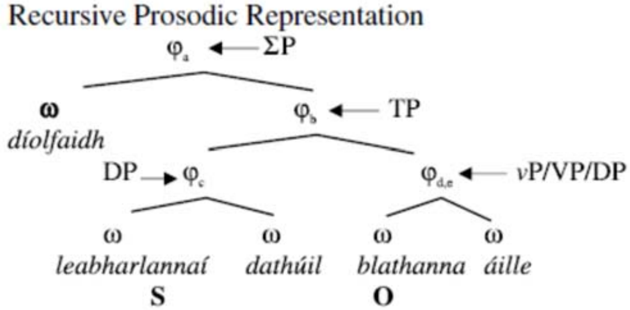
(p. 6)

- Every p-phrase ends with HL
- ...but it begins with LH only if that p-phrase dominates another p-phrase

(4) a. Syntactic Representation



b. Recursive Prosodic Representation



(p. 10)

- Wait, what? A p-phrase dominating another p-phrase?
    - Selkirk (1984) originally proposed the Strict Layer Hypothesis, which includes the requirement that no prosodic category can dominate a node of the same category

  - On the cusp of OT, Ito & Mester (1992) proposed exploding this into a number of violable constraints
  - So, a p-phrase that dominates another p-phrase violates NORECURSION (Selkirk 1996), but depending on that constraint's ranking, that could be OK.

- MATCH-PHRASE: For every XP, there must be a p-phrase that dominates all and only that XP's terminal nodes (pp. 9-10)
- BINARY-MINIMUM(φ): a p-phrase must dominate at least two p-words (p. 12)

- o Let's check the example above.

- This is in line with a proposal by Ito & Mester (2006, and some later papers): the grammar can refer to the lowest in a recursive chain of p-phrases (or any category), or the highest.
  - Those would be minimal and maximal p-phrases
  - o In this case, the grammar needs to refer to ____________________.

- o Elfner gives tableaux to show that a theory with ALIGN and WRAP can't rule out (V (DP) (DP))—let's try it.

5. Wrap-up

- We've seen quite an array of proposals for how prosodic domains could be derived.
- Note that some of our domains have what we think of as prosodic signatures
  - final lengthening, postlexical tones
- But others are posited only to serve as domains of segmental rules
- Ideally, a few segmental rules will line up with each intonational domain, and with each non-intonational domain too
- Worst-case scenario: different rules require contradictory domains! Hang onto that thought...
- P. S. If you're looking for a project topic that revisits phrasal phonology or phonology-syntax interface, Inkelas & Zec 1990 has lots of great case studies

6. Incongruent "domains": Pak & Friesner 2006 (student presentations)

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