Overview

- underspecification and locality
- default values
- privative vs. equipollent features
- more about locality

Underspecification

= the absence (at some point in the derivation) of feature values for some segment(s)

Arguments for underspecification:

- economy in the lexicon
- transparency to spreading (preserves assumption of locality)

Sanskrit nati rule: (show Panini)

\[ n \rightarrow [n] / \{s, t\} X_0 \_

can be blocked by certain intervening consonants:

- kṣubh-aṇa ‘quake’
- kṛp-aṇa ‘hum’
- kṣved-ana ‘lament’
- kṛt-ana ‘cut’

In Steriade’s terms, this is a case of inherent underspecification
(= some segments never bear a value for some features).

Contrastive underspecification

= only contrastive values are specified in the lexicon

Radical underspecification (Kiparsky/Archangeli/Pulleyblank)

= only marked values are specified in the lexicon (unmarked value never specified, even if contrastive)

How can we tell which is right?
Latin: [lateral] is contrastive in liquids (/l/ vs. /r/)
suffix /–alis/ becomes [–aris] when there is a lateral somewhere in the word

nav-alis ‘naval’
sol-aris ‘solar’
milit-aris ‘military’
lun-aris ‘lunar’
litor-alis ‘litoral’
sepuchr-alis ‘funereal’
flor-alis ‘floral’

/l/, /n/ are transparent (lacking in [lateral]), but /r/ isn’t.

This is an argument for contrastive underspecification (why?).

Japanese
Rendaku: C → [+voice] / \compound-internal boundary __

eda + ke → eda-ge ‘split hair’
unari + koe → unari-goe ‘groan’
mizu + seme → mizu-zeme ‘water torture’
ori+kami → ori-gami ‘origami paper’
neko+šita → neko-džita ‘aversion to hot food’

Rendaku is blocked/undone by Lyman’s Law: no two voiced obstruents in a word
C → [-voice] / __ X₀ C
[-son, +voice]

kita+kaze → kita-kaze ‘freezing north wind’
Siro+tabi → Siro-tabi ‘white tabi sock’

Lyman’s Law skips over voiced sonorants:

taikutsu+šinogi → taikutsu-šinogi ‘time-killer’

So they’re underspecified for [voice], which is not contrastive in sonorants.

But Lyman’s Law also skips over voiceless obstruents!

onna+kotoba → onna-kotoba ‘feminine speech’
doku+tokage → doku-tokage ‘Gila monster’

This is an argument for Radical Underspecification (why?).
**Default values**
Underspecification analyses often assume that some redundancy rule comes along later to fill in default values for underspecified segments.

Is there cross-linguistic consistency in what is the “default” value? What would this follow from? The default value is often said to be the unmarked value when it’s crosslinguistically consistent.

**Markedness**
Empirical correlates of being the unmarked feature value (in approximately descending order of agreed-upon-ness):

- If a language has segments with the marked value, it must also have segments with the unmarked value.
- Within a language, the marked value should have a more limited distribution (i.e. be licensed in fewer contexts) than the unmarked value (privileged contexts typically include onsets, stems, stressed syllables, edge of the word).
- The unmarked value corresponds to the neutral position of the articulators.
- The marked value represents greater articulatory effort, or poorer perceptual salience.
- Children produce the unmarked value earlier than the marked value (caution: babies’ vocal tracts are anatomically different from adults’).

Markedness can apply not just to feature values, but to any type of phonological structure.

**Privative features**
= features that are present or absent

**Equipollent features**
= features that can be + or – (or absent)

Privative features obviate default rules (why?).

Q: What’s the different between no [F] and [-F]?
A: Both can be referred to by rules, and both can define natural classes, but only [-F] can spread or induce OCP effects.
More about locality

Locality Condition: the target and the trigger of a phonological rule must be adjacent.

Everyone agrees on something like the Locality Condition. But what do we mean by “adjacent”? Here is a sample of some proposed answers to that question.

- **Minimal scansion** (Archangeli & Pulleyblank 1987)
  = A rule whose target is the feature or node A must be local at the highest level of prosodic structure that “provides access” to A.

  (where the syllable node and up do not provide access to consonant features—only the features of the syllable head (the nucleus) percolate up)

  Example: nasal assimilation in every language that has it. Locality is at the segmental tier, because nasal assimilation can’t skip over segments.

  Note, though, that this can also be accounted for by making the V-Place node subordinate to the Place node (vowels have Place, so you can’t spread Place across a vowel; but consonants lack V-Place, so you can spread V-Place across a consonant)

- **Maximal scansion** (Archangeli & Pulleyblank 1987)
  = A rule whose target is the feature or node A must be local on the tier containing A.

  Example: Sanskrit nati—the [-anterior] feature spreads to a segment that is adjacent on the CORONAL tier.
  (or on the [anterior] tier, depending on your formulation of minimal scansion—is at the level of the thing that spreads or at the level of the node that the spreading docks to?)

- **Planar adjacency** (Clements/Odden)
  The node referred to by the rule and the node which immediately dominates it must form the same plane in the target as in the trigger.

  If Cs and Vs share place features but have different place nodes (Clements/Hume)…

![Diagram of phonological nodes and features]

Place
  \[\text{Vocalic} \quad \text{stricture} \quad \text{place} \quad \text{labial} \quad \text{coronal} \quad \text{dorsal} \quad \text{pharyngeal}\]
…then the plane defined by the association lines for C place is different from the plane defined by the association lines for V place, even though the articulator nodes are on the same tier.

This representation explains how Turkish labial vowel harmony can skip over labial consonants.

On top of planar locality, Odden proposes adjacency parameters that can be on or off for any given rule:

- **Syllable adjacency**
  
  = Target and trigger must be in adjacent syllables

- **Root adjacency**
  
  = Target and trigger must be in adjacent segments (i.e. have adjacent root nodes)

- **Transplanar Locality**
  
  = Nothing that separates the nodes dominating target and trigger can dominate an element on the target tier (this parameter must be OFF for Turkish labial harmony).

**Preview of next time**
  
  - conspiracies and constraints
  - intro to Optimality Theory

**To do for next time**

**Read**
  
  - Kisseberth
  - Kager pp. 1-34

**Skim/consult**
  
  -Kenstowicz 9.13-9.15

**Turn in**
  
  - study questions