

- More fancy representations: The **Grid** (cf. Liberman 1975, Hayes 1995)

layer 4						X			
layer 3	X					X			
layer 2	X		X			X			
layer 1	X	X	X	X	X	X			
word	re	con	ci	li	a	tion			

- A constraint: The **Continuous Column Constraint (CCC)**
No column in the grid may have gaps
- This fancy representation has one of the same motivations as the last fancy representation that we examined – **locality**.

- A Rule (for English): **The Phrasal Stress Rule (PSR)**
Place main stress on the last word of a phrase.

Q: What is the stress pattern for the words *hypothetical* and *imitators*?

Q: What is the stress pattern for the phrase *hypothetical imitators*?

- Another constraint **NOCLASH**
If grid marks are adjacent on their layer, the grid marks under them on the next one down can't also be adjacent.
- And another rule **Move-X**:
- moves grid marks left or right along their layers.

Q: How do these constraints and rules explain Mississippi legislators?

- **Locality and the CCC**

Draw grids for *sunset park* and for *zoo* – now put them together.

How do our constraints and rules explain the outcome?

Do you see conspiracies? Do you see the reasons for fancy representations?

- **Cyclicity, locality, and the CCC**

Given the cyclic story that we told in week 6 for stress assignment in English, how do the constraints here explain the stress pattern for a word like *parental*?

Q: Can another rule help for this case?

- Another constraint: **NOLAPSE**
Only one grid mark on layer 1 may separate each pair of grid marks on layer 2.
- May languages show a perfect grid by obeying NOCLASH and NOLAPSE always. For perfect grid languages the stress patterns can be described with a pair of binary parameters that define whether the stress starts with a peak or a trough and whether stress placement starts at the right or left edge of the word:

Parameter 1: Edge stress yes / no
Parameter 2: Which edge right / left

Maranungku

tí.ralk	'saliva'
mé.re.pèt	'beard'
yán.gar.mà.ta	'the Pleiades'
lángkaràteti	'prawn'
wélepènemànta	'kind of duck'

Weri

ŋin.típ	'bee'
kù.li.pú	'hair of arm'
u.lù.a.mít	'mist'
à.ku.nè.te.pál	'times'

Warao

yí.wà.ra.ná.e	'he finished it'
yà.pu.rù.ki.tà.ne.há.se	'verily to climb'
e.nà.ho.rò.a.hà.ku.tá.i	'the one who caused him to eat'

Araucanian

wu.lé	'tomorrow'
ŋi.pán.to	'year'
e.lú.mu.yù	'give us'
e.lú.a.è.new	'he will give me'
ki.mú.ba.lù.wu.lày	'he pretended not to know'

Winnebago

ha.ki.rú.jik.šà.nà	'he pulls it taut'
hi.ra.wá.haz.rà	'the license'
ho.ki.wá.ro.kè	'swing'
ho.č̣i.č̣i.ṇik	'boy'
hi.jo.wí.re	'fall in'
hi.p̣i.rák	'belt'
hiṣ̌.ja.sú	'eye'

Cairene Arabic (try a moraic grid)

ká.ta.ba	'he wrote'
ka.ta.bí.tu	'she wrote it'
ša.ja.rá.tu.hu	'his tree'
fí.him	'he understood'
ša.ja.rá.tun	'tree'
ša.ja.ra.tu.hú.maa	'their (dual) tree'
ʔad.wi.ya.tú.hu	'his drugs'
ʔin.ká.sa.ra	'it got broken'
qat.tá.la	'he killed'
ka.táb.ta	'you (m.sg.) wrote'
mu.dár.ris	'teacher'
haa.đáa.ni	'these (m. dual)'

- **Timing units:** moras, syllables, feet
- **Extrametricity:** When prosodic units 'ignore' stuff at the edges. With stress the idea is usually that the final syllable doesn't (or might not) count.