Conlanging with a Metrical grid

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When could I use a metrical grid for my stress system?

- When is a metrical grid useful?
  - Complex weight-sensitive systems
  - Working with secondary stress
  - (Higher level structure)
- When is it not useful?
  - Simple, regular systems. If you want to stress the same syllable every time, just pick your syllable.

What is a metrical grid?

- A way to map out levels of prominence within a word, phrase, etc.
- Each syllable will end up with a number of marks relative to its prominence.
- Words will be divided into prosodic units (such as feet), and then the more prominent syllable is computed.

Line 2	x			
Line 1	(x			
Line 0	x	x)	x	x
	L	L	L	L
	ba	ba	mi	na
	babamina			

The Simplified Bracketed Grid

- Proposed by Halle and Idsardi (1987)
- Uses an algorithm to provide boundaries, then project a prominent “head” to the next level of the grid.
- Doesn’t name the prosodic units used.
- Generally avoids extrametricality or catalexis.
- This is based on a later revision in Idsardi (2009)

Types of Rules

- Grouping Rules
  - Decide how to group your metrical units
- Projection Rules
  - Decide which unit in a group gets projected to the next level

Grouping Rules

R2LIS

- Insert a **Right)** or **Left (** bracket
- Every **2** or **3** syllables
- Starting from the **Right** or **Left** edge
- Apply **Iteratively** or **Non-Iteratively**
- **Skip** or **Insert** on the first line

Grouping Rules

R2LIS

- Let’s start with the last two, **Iterative/Non-Iterative** and **Skip/Insert**.

Grouping Rules

R2LNI

- If your rule is **Non-Iterative** and **Insert**, you can ignore the number.

R_RNI	R_LNI
xxxxxx) xxxxxxx)	x)xxxxx x)xxxxxx
L_RNI	L_LNI
xxxxx(x xxxxxx(x	(xxxxxx (xxxxxxx

Grouping Rules

R2LNS

- If your rule is **Non-Iterative** and **Skip**, it gets a little more exciting.

R2RNS	R2LNS	R3RNS	R3LNS
xxxxx)x xxxxxx)x	xx)xxxx xx)xxxxx	xxxx)xx xxxxx)xx	xxx)xxx xxx)xxxx
L2RNS	**L2LNS**	**L3RNS**	**L3LNS**
xxxx(xx xxxxx(xx	x(xxxxx x(xxxxxx	xxx(xxx xxxx(xxx	xx(xxxx xx(xxxxx

Grouping Rules

R2LIS

- Then you can make it **Iterative** for some rhythm, combined with a **Skip.**

R2RIS	R2LIS	R3RIS	R3LIS
x)xx)xx)x xx)xx)xx)x	xx)xx)xx) xx)xx)xx)x	x)xxx)xx xx)xxx)xx	xxx)xxx) xxx)xxx)x
L2RIS	**L2LNS**	**L3RIS**	**L3LIS**
(xx(xx(xx x(xx(xx(xx	x(xx(xx(x x(xx(xx(xx	(xxx(xxx x(xxx(xxx	xx(xxx(x xx(xxx(xx

Grouping Rules

R2LII

- Or **Iterative** combined with an **Insert.**

R2RII	R2LII	R3RII	R3LII
xx)xx)xx) x)xx)xx)xx)	x)xx)xx)x x)xx)xx)xx)	xxx)xxx) x)xxx)xxx)	x)xxx)xx x)xxx)xxx)
L2RII	**L2LNI**	**L3RII**	**L3LII**
x(xx(xx(x (xx(xx(xx(x	x(xx(xx(x (xx(xx(xx(x	xx(xxx(x (xxx(xxx(x	xx(xxx(x (xxx(xxx(x

Reality check

- I included patterns for rules iterating over **3** units, but that's actually typologically rare.
- Iterating over **2** units is much more common.

Weight-sensitivty

- Place a **Right** or **Left** bracket to the **Right/Left** of a heavy syllable
  - Always placed on the same side

x	(x	x
L	H	L
bu	buu	la

x	x)	x
L	H	L
bu	buu	la

Projection Rules

- Project the **Rightmost/Leftmost** unit of a group
- Project **Right/Left/No** brackets

Line 1	Project L		x		x
Line 0	R2LIS	x	x)	x	x)
		ba	ba	mi	na

Line 1	Project R	x		x	
Line 0	R2LIS	x	x)	x	x)
		ba	ba	mi	na

Projection Rules

- Project the **Rightmost/Leftmost** unit of a group
- Project **Right/Left/No** brackets

Line 1			x		x
Line 0	R2LIS Project L	x	x)	x	x)
		ba	ba	mi	na

Line 1			x)		x)
Line 0	R2LIS Project L Project L)	x	x)	x	x)
		ba	ba	mi	na

Let’s Conlang

- We’ll start with some sample words.

x	x	x	x	x	x	x	x	x	x	x	x	x
L	H	L	L	L	L	L	L	L	H	L	H	L
ku	kuu	la	‘at	ba	ba	mi	na	ki	ri	na	too	ra
kukuula’at				babamina				kiriinatoo				

Let’s Conlang

- Now we will choose a grouping rule.

Line 0	R2LNS	x	**x)**	x	x	x	**x)**	x	x	x	**x)**	x	x	x
		L	H	L	L	L	L	L	L	L	H	L	H	L
		ku	kuu	la	‘at	ba	ba	mi	na	ki	ri	na	too	ra
		kukuula’at				babamina				kiriinatoo				

Let’s Conlang

- How about heavy syllables?

Line 0	R2LNS Heavy R	x	(x)	x	x	x	x)	x	x	x	x)	x	(x	x
		L	H	L	L	L	L	L	L	L	H	L	H	L
		ku	kuu	la	‘at	ba	ba	mi	na	ki	ri	na	too	ra
		kukuula’at				babamina				kiriinatoo				

Let’s Conlang

- Get the next layer

Line 1			x			x				x			x	
Line 0	R2LNS Heavy L Project L	x	(x)	x	x	x	x)	x	x	x	x)	x	(x	x
		L	H	L	L	L	L	L	L	L	H	L	H	L
		ku	kuu	la	‘at	ba	ba	mi	na	ki	ri	na	too	ra
		kukuula’at				babamina				kiriinatoo				

Let’s Conlang

- Oh, let’s make sure we get only one primary stress.

Line 2			x			x							x	
Line 1	L_RNI Project R		**(x**			**(x**				**x**			**(x**	
Line 0	R2LNS Heavy L Project L	x	(x)	x	x	x	x)	x	x	x	x)	x	(x	x
		L	H	L	L	L	L	L	L	L	H	L	H	L
		ku	kuu	la	‘at	ba	ba	mi	na	ki	ri	na	too	ra
		kukuula’at				babamina				kiriinatoo				

Let’s Conlang

- What if we tweak one variable? Yes this kind of thing can happen. (Kumaran 2023)

Line 2			x				**x**							**x**
Line 1	L_RNI Project R		(x				**(x**				**x**			**(x**
Line 0	R2LNS Heavy L **Project R**	x	(x)	x	x	x	x)	x	x	x	x)	x	(x	x
		L	H	L	L	L	L	L	L	L	H	L	H	L
		ku	kuu	la	‘at	ba	ba	mi	na	ki	ri	na	too	ra
		kukuula’at				babamina				kiriinatoo				

Things to note

- Always stay rooted in typology
- You will need to make some other decisions
  - What counts as a heavy syllable?
  - Are you going to do secondary stress?
- You may need some other rules in addition to this
  - Stress clash rules might be necessary
  - Other phonological rules might occur within the derivation
- **Above all, have fun!**

Bibliography

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