

GRIDIZING TEXTS AND THE PERFORMANCES OF TEXTS

1. Text Grids and Performance Grids

- Grids show alternating *weak* (W) and *strong* (S) positions, with higher grid columns indicating relatively “stronger” and “weaker” positions
- The Three Level Problem: a grid based on aligning the *phonology* of the text with a *text meter* [Kiparsky’s (2006) *poetic meter*, (2010) *verse instance*, D&E *text grid*] may be at variance with a grid aligning the text with *musical performance* [Kiparsky’s (2006) *musical rhythm*, (2010) *delivery instance*, D&E *time grid*]
- An example: a 16 mora *text meter* vs. a 12 “mora” *musical performance* (e.g. 12 eighth notes in a 12/8 meter or two measures of a 6/8 meter)

16 mora text:

W		S		W		S		W		S		W		S
		x				x				x				x
x		x		x		x		x		x		x		x
x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

12 mora music:

S				W				S				W
x								x				
x				x				x				x
x	x	x	x	x	x	x	x	x	x	x	x	x

Three songs by D’an Maraya Jos: “Aiki da Sana’a” [Work and Occupations] (example 3)
 “Auren Dole” [Arranged Marriage] (example 6)
 “Jawabin Aure” [Discourse on Marriage] (example 5)

He must be left-handed. The Hausa Jimi Hendrix!



Comments on gridizing songs and performances of the D'an Maraya songs:

- “Aiki da Sana’a”: - Text grid = *mutadaarik* 16-mora grid vv – vv – vv – vv –; no irregularities other than omission of the first W in line 003
 - Performance is 4/4 and matches text grid aside from squeezing the very first sung syllable
- “Auren Dole”: - Text grid = *syncopated mutadaarik* vv – vv – vv – v –; omits initial v or vv in 001, 004; squeezes initial – in all other lines
 - Performance is 4/4; it is essentially 100% faithful in aligning moras with eighth notes (setting aside the instrumental interludes). The lines of interest are those where the first two syllables of a text line are heavy-light. Working from the text grid, these all require squeezing of the heavy to fit the vv metrical position. In performance, DMJ performs as follows: ...– v – / – v | – ... (slash = line boundary, vertical stroke = musical measure boundary). The last beat of the musical performance falls in the middle of the heavy syllable that initiates the next line.
- “Jawabin Aure”: - Text grid is the same as “Auren Dole”, with similar omissions of line initial syllables, and squeezing of heavies in initial – v.
 - Performance is 6/8; the 16 moras of the text have to align somehow with the 12 eighth notes of two 6/8 musical measures. This is done as follows:
 (1) Set the heavy syllables of the 1st and 3rd S positions to the downbeats of each of two 6/8 measures
 (2) Squeeze the first heavy of each measure and one other heavy in each measure, usually the last.
 This squeezing has the effect of dropping four moras over the two 6/8 bars, i.e. it allows a 16 mora text to align with 12 eighth notes.

NOTE ON *MUTADAARIK* VS. *SYNCOPATED MUTADAARIK*: Casual observation shows that poems in *mutadaarik* tend to disfavor or even disallow line initial – v, using (only) vv or –, whereas poems in *syncopated mutadaarik* tend to favor – v over either – or vv. The text-setting of “Auren Dole” gives a reason for this skewing, viz. – v in syncopated *mutadaarik* provides a mora to fill out a 16 mora line. Plain *mutadaarik* already has 16 moras, which is an ideal line type for a four beat line, but the light penultimate syllable of syncopated *mutadaarik* leaves the line with only 15 moras if the line begins with vv. The musical setting of “Auren Dole” shows that the additional mora provided by – v counts for something!

2. Accounting for Textsetting Preferences with Constraints

Some tentative constraints, roughly ranked

- TACTUS = the rhythmic pulses that performers/hearers feel in clapping, tapping feet, etc. (Lerdahl & Jackendoff (1983) , page 71)
- MMORA = “musical mora”, essentially eighth notes in common Western musical meters
- MPHRASE = the point in a musical line where performers/hearers sense a pause

1. The war - den threw a par - ty in the coun - ty jail. — The
 2. Spi - der Mur - phy played the ten - or sax - o - phone. —
 3. Num - ber Fort - y - sev - en said to Num - ber Three: —
 pris - on band was there and they be - gan to wail. — The
 Lit - tle Joe was blow - in' on the slide trom - bone. — The
 You're the cut - est jail - bird I ev - er did see. — I

STRONG/TACTUS

Set the syllables corresponding to the S positions of the text grid to the musical TACTUS (basically equivalent to D&E (2008) BEAT, page 40).

ALIGN RIGHT (LINE, MPHRASE)

Align the right edge of a text line to the end of a MPHRASE (basically equivalent to D&E (2008) LINE/GROUP, page 116: has the effect of Hayes (2009) *RUNON).

*LIGHT > 1 MMORA

A light syllable should not align to more than one eighth note.

*HEAVY < 2 MMORAS

A heavy syllable should not align with fewer than two eighth notes (basically equivalent to *SQUEEZE).

*HEAVY > 2 MMORAS

A heavy syllable should not align with more than two eighth notes (basically equivalent to Hayes (2009) AVOIDLAPSE).

*HEAVY IN WEAK

Penalizes a heavy that is initiated in a non-tactus position. This has the effect of penalizing syncope and/or singing off the beat.

FAITH (MORA, MMORA)

There should be a one-to-one alignment of text grid to musical grid.

Some examples

Dan Maraya Jos, “Aiki da Sana’a” [Work and Occupations] (example 3)

Violates no constraints, i.e. text grid perfectly matches musical grid.

Dan Maraya Jos, “Auren Dole” [Arranged Marriage] (example 6)

- Violates *HEAVY IN WEAK in every line since the line final syllable (always scanned as heavy) always falls on the single x preceding the TACTUS column. Line initial heavy syllables, as in 002 *Kun* also violate *HEAVY IN WEAK.
- Thus, for this song, FAITH (MORA, MMORA) >> *HEAVY IN WEAK.

- STRONG/TACTUS vs. *HEAVY IN WEAK: In principle, all the line final heavy syllables in this meter violate both these constraints. Perhaps there should be a family of constraints such as STRONG/TACTUS(INITIAL, MMEASURE), STRONG/TACTUS (MEDIAL, MMEASURE) and the like. The latter would be ranked lower than *HEAVY IN WEAK. Alternatively, one might invoke the FAITH (MORA, MMORA) >> *HEAVY IN WEAK ranking suggested above, though this would run into problems in settings where the 2nd S text position is set to a W musical position.

Dan Maraya Jos, “Jawabin Aure” [Discourse on Marriage] (example 5)

This song sets the 16 mora text to music with 12 eighth notes per line. The two constraints on setting heavy syllables to MMORAS also violate FAITH; I have omitted this. I have also not assigned a violation of STRONG/TACTUS to the line final syllables—see the box above.

Dan Maraya Jos, “Jawabin Aure”	STRONG/TACTUS	ALIGN _{RT} (LINE, MPHRASE)	*LIGHT > 1 MMORA	*HEAVY < 2 MMORAS	*HEAVY > 2 MMORAS	*HEAVY IN WEAK	FAITH (MORA, MMORA)
001	*			*****	*	*	
002				***		*	
003				*****		*	
004	*			*****	*	*	
005				*****		*	
006				***		*	
007				*****		**	

Two poems in *kaamil* by Akilu Aliyu**Saƙo a Hannun Mumini** [Message in the Hand of a True Believer (in Islam)]Text scansion

	W	S	W	S	W	S	W	S
SS		x		x		x		x
S	x	x	x	x	x	x	x	x
W	x	x	x	x	x	x	x	x
001a	Saa	kxoo	a	han-	nun	muu-	mi-	nii
001b	Zai	kai	shi	baa	wa- ni	bim-	bi	nii

Performance

	W	S	W	S	W	S	W	S
		x		x		x		x
	x	x	x	x	x	x	x	x
	x	x	x	x	x	x	x	x
001a	Saa-	koo	'a	>	han-	nun	muu-	mi- nii, Ø
001b	Zai	kai	shi	baa	+	wa- ni	bim-	bi- nii. Ø
002a	Nii	naa	ki-	raa	+	Sar-	kii	gwa-nii, Ø
002b	Wan-	nan	da	yaa	+	saa-	maR	da nii. Ø
003a	Yaa	'al-	>	ha- zaa-	waa	kun	ga- nii, Ø	
003b	dim-	bin	bu-	kaa-	+	taa	cee	da nii. Ø
004a	Sai	dai	>	ya- wan	rau-	nii	ga- ree	+
004b	ni	'a- kwai	ra-	shin	+	kar-	fii	'a nii. Ø
005a	Baa	>	>	[yau ba nee	maa	tun	tu- ni,	Ø
005b	Ni- ka	son	'a	jee	+	Ma- ka-	tan	da nii. Ø

Akilu Aliyu, “Saƙo a Hannun Mumini”	STRONG/TACTUS	ALIGNRT (LINE, MPHRASE)	*LIGHT > 1 MMORA	*HEAVY < 2 MMORAS	*HEAVY > 2 MMORAS	*HEAVY IN WEAK	FAITH (MORA, MMORA)
001a			*		*	**	*
001b, 002a, 002b					*	*	*
003a					*		*
003b					*	*	*
004a					*		*
004b					*	*	*
005a				*	**	*	***
005b					*	*	*

Text grid

	x	x	x	x	x	x	x	x	x	x
	x	x	x	x	x	x	x	x	x	x
001a	Saa-	baa	da	nee-	man	gas-	ki yaa	duk	nii	saa x
001b saa.	Sa- ra-	rii	da bxoo-	ye ka dan	ka soo	bun-	kxaa-			
002a	Gaa	gaR-	ga- dxii	ya zu-	waa	ga- ree	mu zu-	mai-	naa	
002b	Yxaa-	yxañ	A- ree-	wa da wan-	da duk	kee	Hau-	sa.		

	x	x	x	x	x	x	x	x	x	x	x	x	x
	x	x	x	x	x	x	x	x	x	x	x	x	x
	x x	x x x	x x x	x x x	x x x	x x x	x x x	x x x	x x x	x x x	x x x	x x x	x x x
001a	Saa-	baa	da nee-	man	gas-	ki yaa	duk	nii	saa				
001b	Sa- ra-	rii	da bxoo-	ye ka	dan	ka soo	bun-	kxaa-	saa.				
002a	Gaa	gaR-	ga-dxii	ya zu-	waa	ga-ree	mu zu=	mai-	naa				
002b	Yxaa-	yxañ	a-ree-	wa da	wam-	da duk	kee	Hau-	sa.				
003a	Ja- ma-	xaa	mu kaR=	ka-dxe	kun-	nu-wam-	mu na	zuu-	ci				
003b	Zan-	cen	da zan	ma-na	shii	mu jii	shi mu	am-	sa.				
004a	Nii	nan	da kai	shii	kee	da suu	baa-	kii-	dxai				
004b	Kuu	nan	na kuR-	ku-sa	haR	na caa	na da	nii-	saa.				
005a	Na-	a cee	mu jaa	dxa-ma-	raa	ba jau	kxakx-	kxar-	faa,				
005b	Mui	kxoo-	kxa-rin	ta-fi-	yaa	ga-rin-	mu da	nii-	saa.				

Akilu Aliyu, “Hausa Mai Ban Hausi”	STRONG/TACTUS	ALIGN _{RT} (LINE, MPHRASE	*LIGHT > 1 MMORA	*HEAVY < 2 MMORAS	*HEAVY > 2 MMORAS	*HEAVY IN WEAK	FAITH (MORA, MMORA
001a, 001b, 002a					**		**
002b					**	*	**
003a, 003b, 004a					**		**
004b					*	*	*
005a					**	*	**
005b					**		**

Hausa Mai Ban Hausi

[illegible]

5

[illegible]

13

Example 13

17

21

Example 10 (continued)

[illegible]

29



kxòò - kxa - rin tà - fī - yàa gà - rin - mù dà nii - saa.

Text grid (*mutadaarik*)

SS		x						x				
S		x				x		x				x
W	x	x		x	x	x	x	x		x		x
SW	x	x	x	x	x	x	x	x	x	x	x	x
001a	Tuu-	Raa-	waa	sun	ga	A-	fiR-	kan-	mu			
001b	A ma-	far-	kii	haR	su-	ka	nee-	mee	mu			
001c	A ya-	kxii	nii	yau	su-	ka	saa-	mee	mu			
001d	Doo-	min	him-	maa	da	ya-	wan	il-	muu			
001e	Su- ka	saa-	du da	saa-	bab-	bin	kxau-	mu				

SS		x								x							
S	x	x					x			x	x					x	
W	x	x		x			x		x	x	x		x			x	x
SW	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
			001a				001b-e						all lines				
			002b														
001a	Tuu-	Raa-			waa	sun		ga	A-	fiR-		kan-		mu			
001b	A	ma- far-	kii		haR			su-	ka	nee-	mee		mu				
001c	A	ya- kxii-	nii		yau			su-	ka	saa-	mee-		mu				
001d	Doo-	min	him-		maa			da	ya	wan	il-		muu				
001e	Su- ka	saa-	du da	saa-				bab-	bin	kxau-		mu					

- 20 grid positions are achieved by adding two-mora “gridlets” at two points in the line.
- One of these is always added at the end of the line.
- The other is added between the two SS positions (in musical terms, within the first full musical measure). The result is to extend a sung syllable by two moras (e.g. as a half note rather than a quarter note for a heavy syllable). The counts for positioning the “gridlets” are for the two lines of the refrain and the 25 lines of the first five stanzas:
 - After the SS: 17
 - After the first S: 8
 - After the first W: 2 (one of these, line 003a, is on two light syllables and is sung as an eighth note followed by a dotted quarter, i.e. the additional moras are added to a light syllable, thus violating a highly ranked constraint)

Abubakar Ladan, “Wakar Hada Kan Afirka”	STRONG/TACTUS	ALIGN _{RT} (LINE, MPHRASE	*LIGHT > 1 MMORA	*HEAVY < 2 MMORAS	*HEAVY > 2 MMORAS	*HEAVY IN WEAK	FAITH (MORA, MMORA
all lines					*****		

Wakar Had'a Kan Afirka

Abubakar Ladan

