

## Class 11, 4/4/15: Sung Chanted Verse II: Hayes and Kaun 1996, More on the Three-Level Problem

### 1. Assignments and readings

- Readings for this week are on the Web site:
  - Schuh, "Text and Performance in Hausa Metrics"]
  - Burling, Robbins (1966) "The Metrics of Children's Verse: A Cross-Linguistic Study," *American Anthropologist* 68, 1418-1441.

### THE METRICS OF ENGLISH SONG VERSE:

### SIMILARITIES AND DIFFERENCES W.R.T. ART VERSE

### 2. Hayes and Kaun (1996)

- Actual verse was ca. 600 lines of Appalachian material from Sharp.
- “Native-speaker” data was 10 young people forced to chant these lines as we took them down with grids.

(8)			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																
a.	'Twas	in	Ox		ford		Ci-	ty	I		lost		my		way	
b.	'Twas	in	Ox		ford		Ci-	ty	I		lost		my		way	
c.		'Twas	in		Ox	ford	Ci-	ty		I	lost	my			way	

a. = original setting, and consultants AM, CS, CW, DS, EF, JM, KK, and RW  
 b. = RH  
 c. = JD

### 3. Textsetting

- We used the “textsetting approximation” to the task of metrics; see last time for why this is probably not such a bad approximation.

### 4. Similar things to art verse (native speaker data)

- Privilege for lexical stresses (with an important exception, covered later).
- Kiparskyan phrase-final filters hold good
- Bracketing matching, with a nice medial caesura and even quarter-line break maxima:

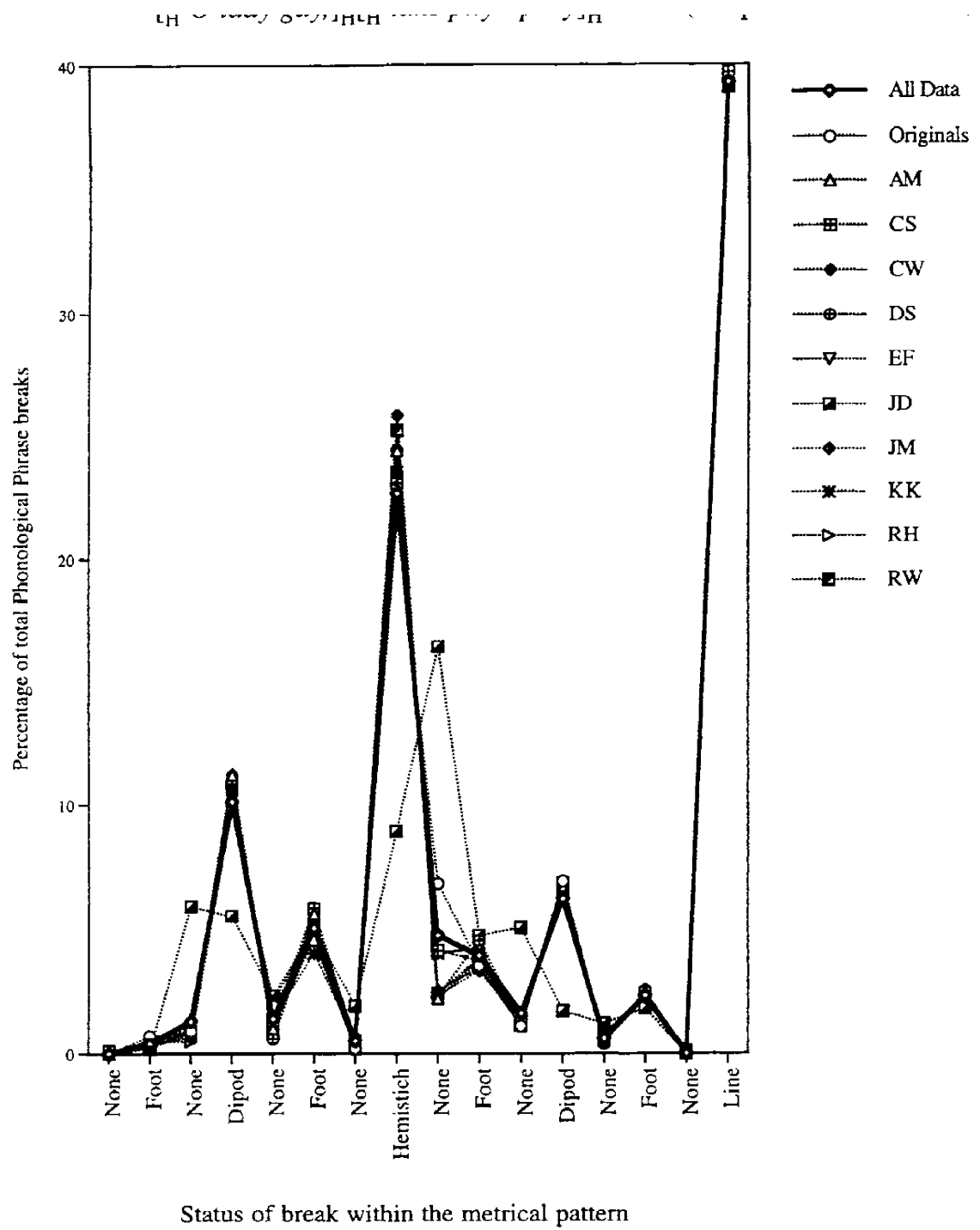


Figure 5. Agreement of Phonological Phrase breaks with breaks in line structure

## 5. Stuff that is different

- **Unfilled positions** (or filled by prolongation) count as the weakest possible filling of a position.
  - These largely don't occur in pentameter.
  - For their distribution, which is lawful, see below.
- **Dipodicity of the metrical pattern**, directly echoed in the aggregate responses of the consultants:

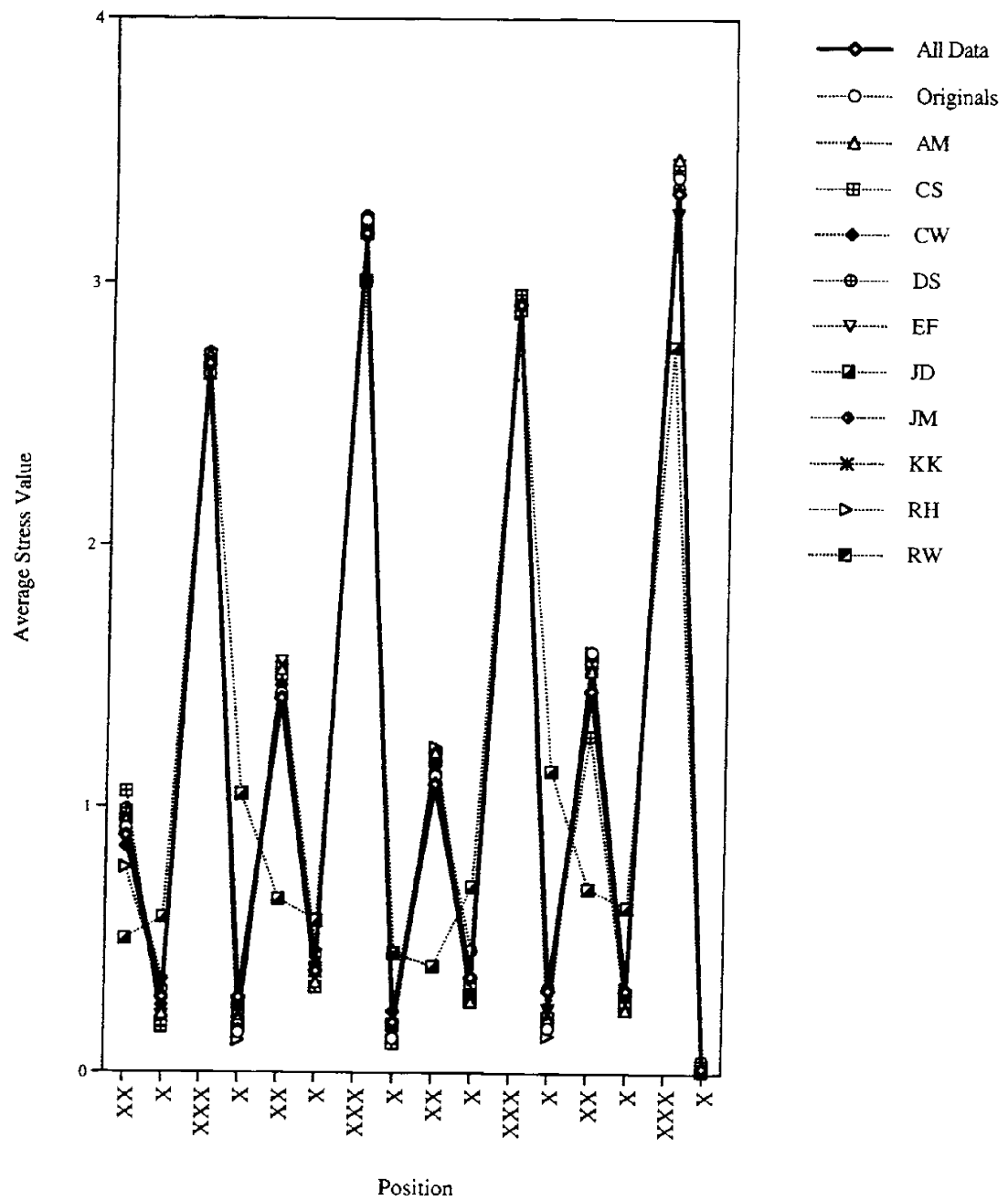


Figure 1. Stress profile of all four-beat lines

## 6. Durational effects

- The positions that don't initiate a syllable tend to be filled by prolongation of the syllables that are phonetically longest in English.

### a. Long First

x				x
x		x		x
x	x	x	x	x
'σ		σ	σ	'σ

### b. Short First I

x				x
x		x		x
x	x	x	x	x
'σ	σ		σ	'σ

### c. Short First II

x				x
x		x		x
x	x	x	x	x
'σ	σ	σ		'σ

## 7. A metric to classify syllables according to their durational preferences

$$\frac{\text{total Short First cases}}{\text{total Long First cases} + \text{total Short First cases}} \times 100$$

## 8. A graph showing duration matching

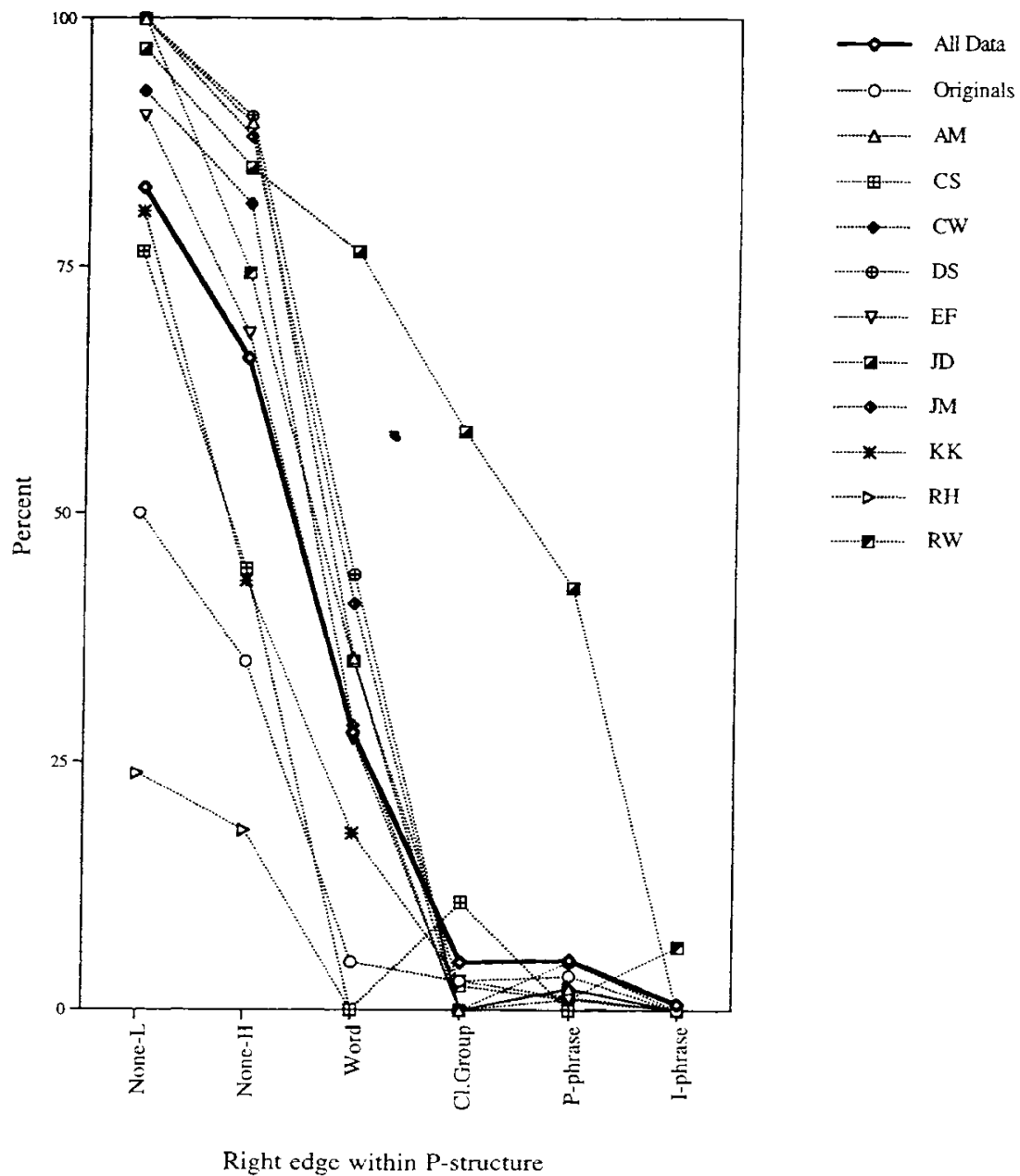


Figure 2. Percentage of Short First textsettings for different syllable durations

## 9. And similarly for:

### a. Scotch Snap

x				x
x		x		x
<u>x</u>	<u>x</u>	<u>x</u>	<u>x</u>	<u>x</u>
'σ		σ		'σ

### b. Even Rhythm

x				x
x		x		x
<u>x</u>	<u>x</u>	<u>x</u>	<u>x</u>	<u>x</u>
'σ		σ		'σ

### c. Dotted Rhythm

x				x
x		x		x
<u>x</u>	<u>x</u>	<u>x</u>	<u>x</u>	<u>x</u>
'σ		σ		'σ

## 10. Speculatively

- We think we even got **vowel height** effects (not quite significant): [i, u] in open syllable want most to occupy few slots.
- This will come up again when we study Kevin Ryan's work on classical quantity.

## THE THREE-LEVEL PROBLEM IN ENGLISH SUNG VERSE

## 11. What full-scale three-levelism looks like

- Russ's example from last time seemed (if verified for the whole poem) to be incontrovertible evidence for *full-scale* three level-ism.
  - Metrical and sung grids are not the same.
  - Well-formed association to the sung grid *must refer to the association to the meter grid*.
  - Why? Because heavy syllables are everywhere compressible, making sung textsetting quite free.
  - You need reference to the metrical setting to know what to do.

## 12. Full-scale three-levelism is *correspondence to a correspondence*

- Possible constraint:
  - If  $\sigma_i$  is associated to a hyperstrong position  $j$  in the poetic meter, it must likewise be associated to hyperstrong position  $j$  in the sung grid.

## 13. Limited (boring) three-levelism

- The metrical grid defines what is a legal phonological string.
- That string is employed *de novo* in textsetting.
- We saw that this suffices for Hausa *imfiraji*.

## 14. Result of my checking so far

- I think boring three-levelism may suffice for English.
- But we need an auxiliary theory:

## 15. Stanzaic responsion

- This is an yet-to-be-fully-formulated theory that enforces similar textsettings in different stanzas of the same song.
  - A stanza (usually the first) gets a setting, perhaps accommodated to the particular word choice.
  - Other stanzas must be faithful to it in their grid alignments.
- Let us consider an extreme case.

## 16. Case study: “Rudolf the Red-Nosed Reindeer?”

- “Rudolph the Red-Nosed Reindeer” (Johnny Marks, cf. 1949; now folkloric)
- *Should we wish* to give it an analysis at Level II (not clear!), the meter is a mixed variety. Alternating lines of
  - dactylo-trochaeo-trochaic trimeter
  - catalectic trochaic tetrameter

S W W S W S W  
S W S W S W S

/ Rudolph, the / red-nosed / reindeer /  
/ Had a / very / shiny /nose /  
/ And if you / ever / saw it /  
/ You would / even / say it / glows. /

/ All of the / other / reindeer /  
/ Used to / laugh and / call him / names /  
/ They never / let poor / Rudolph /  
/ Join in / any / reindeer /games. /

bridge passage in other meters

/ Then all the / reindeer / loved him /  
/ As they / shouted / out with /glee /  
/ Rudolph, the / red-nosed / reindeer /  
/ You'll go / down in / histo- / ry! /

- This probably arose through the composer thinking of the first line (the character existed before the song did) and finding a grid-setting that naturally matched the syllable durations (try saying it as prose).



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
Ru-	dolph		the	red		nosed		rein		deer					
Had	a	ve-	ry	shi-		ny		nose							

This establishes a kind of annotated grid that says where future syllables have to go:

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
σ	σ		σ	σ		σ		σ		σ		σ			

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
σ	σ	σ	σ	σ		σ		σ							

## 17. Rudolf the Red-Nosed Reindeer: Analysis I

- Output-to-Output correspondence
  - MAX STANZA<sub>1</sub>-STANZA<sub>n</sub>(σ): Assess a penalty if Grid Position *i* in Stanza 1 initiates a syllable and its correspondent in Stanza *n* does not.
  - DEP STANZA<sub>1</sub>-STANZA<sub>n</sub>(σ): Assess a penalty if Grid Position *i* in Stanza 1 does not initiate a syllable and its correspondent in Stanza *n* does.

## 18. Rudolf the Red-Nosed Reindeer: Analysis II

- Parochial constraints
  - FILL POSITION 1 OF ODD LINES
  - FILL POSITION 2 OF ODD LINES
  - DO NOT FILL POSITION 3 OF ODD LINES
  - ...
  - FILL POSITION 1 OF EVEN LINES
- These are as stupid as can be but are surely learnable.
- We have to explain why “Rudolf” meters are not utterly arbitrary, just a little bit.
- But this is just as true of the phonological lexicon, which tends to be mostly lawful but contain odd outliers (*sphere*, *joi de vivre*, *piano* ['pjænou], *going to* ['gɔɪŋ])

## 19. What probably won't help

- François Dell suggests (ref. needed) that reference to the musical notes (itches) will help explain such cases.
- I have doubts; at least for English pitches can be both more frequent (melisma) and less frequent than syllables, casting doubting on their regulatory value.

## 20. Is there a Level II at all for Rudolf?

- In a system this arbitrary, we must wonder whether Level II exists at
- In such a system, there seems rather little role for a meter independent of the music.

## 21. Upshot of Rudolf

- There are songs that are metrically weird; but make sense if the composer first follows direct duration matching, then interstanzaic correspondence.

### SOME EXAMPLES FROM MOZART FOR "MISSING LEVEL II"

## 22. A bit on *The Magic Flute*

- A late work for Mozart, showing his most mature style.
- The poet (librettist) was the impresario Emanuel Schikaneder, who was also the head of the theater company and the first singer of the role of Papageno.
- Most of the libretto is in (German) iambic tetrameter; bits in iambic pentameter or trochaic tetrameter.

## 23. A strongly deviating example, with pentameter

- The aria "Der Hölle rache kocht in meinem Herzen" is a cultural borrowing from courtly opera into popular opera, and Schikaneder appropriately provided it with (primarily) pentameter text.
- All the lines scan just fine:

		x		x			x			x		x
x		x	x	x	x		x		x		x	x
Der		'Hölle		'Rache		kocht		in		,meinem		'Herzen

"The vengeance of Hell boils in my heart."

➤ Read grids below to verify this

Mozart's gridding, from the score (<https://www.youtube.com/watch?v=OLlux8ICOfI>)

			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
Der	Höl	le	Ra			che	kocht	in	mei	nem	Her		zen			
		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
		Tod						und	Ver-	zwei			flung			
		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
		Tod				und			Ver-	zwei			flung		flam	-
		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
				met		um		mich		her						

‘Death and despair, death and despair flame about me.’

			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
		Fühlt				nicht		durc		dich						
								h								
		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
	Sa-	ras-		tro		To-		des		schme			zen			
										r-						

“If through thee Sarastro does not feel the pains of death”



“Only the harmony of friendship  
Eases difficulties.  
Without this sympathy  
There is no happiness on earth.”

		x				x	
x		x		x		x	
x	x	x	x	x	x	x	x
Nur	der	'Freund-	schaft	Har-	mo-	'nie	Ø
'Mil-	dert	die	be-	'schwer-	—	den	Ø
Oh-	ne	die-	se	'Sym-	pa-	thie	Ø
Ist	kein	'glück	auf	'Er-	—	de	Ø

- This occurs in one of the bits of didactic poetry strewn through this opera, and the mimicry of folk song is probably intentional.

## 26. A Partial Survey: Mozart's Settings of the Inversion-Initial Tetrameters in *The Magic Flute*

- I got about 2/3 of the way through the opera. Inversions of any sort in Schikaneder's verse are rare.
- Stress in W is set as musical S:

Sound: <https://www.youtube.com/watch?v=B2IKLi0rJDA>

O Isis und Osiris schenket  
4 | 2 4 | 2 4 | 2 4 | 4 4  
Der Weisheit Geist dem neuen Paar  
4 | 2 4 | 2 4 | 2 4 | 2  
Die ihr der Wand'rer Schritte lenket  
| 4 4 4 | 2 4 | 2 4 | 4 4  
**Stärkt** mit Geduld sie in Gefahr  
| 4 4 4 | 2 4 | 2 4 | 3

‘O Isis and Osiris grand  
the spirit of wisdom to the new pair  
Ye who direct the wanderer's step  
Strengthen them with patience in danger’

So lohnt der Tugend kühnen Lauf  
| 4 4 4 | 4 2 | 2 4 | 2 (triple time)  
**Nehmt** sie in euren Wohnsitz auf  
| 4 4 4 | 4 2 | 2 4 | 2  
‘Reward the bold path of their virtue,

Take them into your dwelling place'

**Tod** und Verzweiflung war sein Lohn

| 4 8· 16 4 4 | 4 4 2

'Death and despair were his reward.'

- Stress in W is set as musical W:

<https://www.youtube.com/watch?v=5-Qq-DeEXhw>

Der 'Vogel|fänger bin ich ja

4 | 4 4 4 4 | 4 4 4

Stets lustig heissa Hopsasa

4 | 4. 8 4. 8 | 4 4 4

Ich Vogelfänger bin bekannt

4 | 4 4 4 4 | 4 4 4

Bei alt und Jung im ganzen land

4 | 4. 8 4. 8 | 4 4 4

Der Vogelfänger bin ich ja,  
Stets lustig heissa hopsasa!  
Ich Vogelfänger bin bekannt  
bei Alt und Jung im ganzen Land.  
Weiß mit dem Lokken umzugehn  
und mich aufs Pfeiffen zu verstehen!  
Drum kann ich froh und lustig sein,  
Denn alle Vögel sind ja mein.

The birdcatcher I am indeed,  
Always happy, heidi heh hey!  
I, the birdcatcher, am well known  
To old and young throughout the land.  
Know how to get around the bird decoys  
And be understood on the fife.  
Therefore I can be happy and funny,  
For all the birds are indeed mine.

'**Weiss** mit dem 'Locken 'um zu 'gehn

4 | 4 4 4 4 | 4 4 4

'I know how to go around with [bird] traps'

4 = quarter note; 8 = 8th note, etc.

## 27. A very tentative take on these data: stanza correspondence

- Mozart scans even tetrameter largely on the basis of stress (no Arrow A), *but* in strophic songs subjects himself to heavy parallelism constraints, which cause tetrameters with inversion to inherit the textsetting of previous, non-inverted lines.

## 28. A clear case of stanza correspondence: *Sacred Harp* inversion

<https://www.youtube.com/watch?v=yl8Vxfo4g3E>

On Jordan's stormy banks I stand,  
And cast a wishful eye,  
To Canaan's fair and happy land,  
Where my possessions lie.

Chorus:

I am bound for the promised land,  
I am bound for the promised land,  
Oh, who will come and go with me,  
I am bound for the promised land.

Oh, the transporting, rapt'rous scene,  
That rises to my sight,  
Sweet fields arrayed in living green,  
And rivers of delight.

(Chorus)

Filled with delight, my raptured soul  
Would here no longer stay!  
Though Jordan's waves around me roll,  
**Fearless** I'd launch away.

## 29. Why might a composer want to use verse at all?

- I suspect it's simply easier:
  - alternating stress
  - suitably-based major breaks
  - stanzas and quatrains also help (Mozart's writing often reflects the sectional patterns provided to him by Schikaneder.)
- Setting prose (see Brahms's *Four Serious Songs*, using Luther's Bible) is hard.
  - <https://www.youtube.com/watch?v=w9iGuGddPqw>

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
wenn						ich	mit	'Men-			schen	und		mit		
'Eng-			el	'Zung-		en		'Re-			de-	te				un
																d
hät-		te	die	'Lie-						be		nicht				so
wär'		ich	ein	'tö-		nen		Erz		o-	der	ei-		ne		
						d										
'kling-		en-	de	'Schel-		e										

Wenn ich mit Menschen- und mit Engelszungen redete,  
if i with people and with angel tongues spoke  
und hätte der Liebe nicht,

and had the love not  
so wäre ich ein tönend Erz oder eine klingende Schelle.  
so would-be I a sounding brass or a tinkling cymbal

“Though I speak with the tongues of men and of angels, and have not charity, I am become  
as sounding brass, or a tinkling cymbal.” 1 Corinthians 13.1