

The metrics of epenthetic [i], [ə] and [a] in Tiberian Hebrew

In Tiberian Hebrew (TH; Khan 2020), the symbols interpreted as the vowels [ə], [i] alternate in the same syllabic nucleus. [ə] is found in open syllables, [i] in closed ones. The alternations are found in positions where the absence of a vowel would lead to phonotactically illicit structures, suggesting that these two vowels are epenthetic. In support of this view, when the nucleus of the same syllable can be dropped without a phonotactic problem, it is.

The facts in (1) illustrate. The stem vowel /o/ is missing from the suffixed stems in (1b,d);¹ it is replaced by [ə] when preceded by a cluster (1b), but absent after a single consonant (1d). The first two Cs of the stem are adjacent if there is a prefix (1a,b); otherwise, they are separated by [ə] if the syllable is open (1c), and by [i] if it is closed. The 2p prefix, too, occurs with [i] in closed

(1)	a. ti-ʃmo:r	‘2-guard. ¬PST’		f. tə-targe:m	‘2-translate. ¬PST’	syllables (1a,b) and [ə] in open ones (1f,g). Finally, another alternation concerns
	b. ti-ʃmər-i:	‘2-guard. ¬PST-F’		g. tə-targəm-i:	‘2-translate. ¬PST’	
	c. ʃəmo:r	‘guard. ¬PST’		h. ta:-ʃəbo:d	‘2-work. ¬PST’	
	d. ʃimr-i:	‘guard. ¬PST-F’		i. ta:-ʃəbd-i:	‘2-work. ¬PST-F’	

illicit coda gutturals. If a guttural [ʕ] is expected to be in coda position (1h,i), the 2p prefix surfaces with a long [a:]; the guttural is followed by a short low schwa [ǎ] if the syllable is open, and a regular vowel [a] if the syllable is closed. (Spirantization is ignored in the transcriptions).

Although TH is a well-studied language, the [ə], [i], Ø alternation has not been previously addressed in a formal account (other than “[ə] → [i]/_CC” in Prince (1975)). In this talk, I provide an account using the representations of Strict CV (Lowenstamm 1996; Scheer 2004), according to which phonetically adjacent consonants are separated by empty V-slots (Empty Nuclei, ENs) on the skeletal tier. I combine this view with its grid-based application to syllable weight in Faust & Ulfsbjorninn (2018), according to which the metrical potential of ENs is “incorporated” into the preceding V-slot (in red below). Incorporation is motivated by the marked status of projecting ENs, as well as by the tendency to avoid metrical lapses or plateaux.

I assume that all lexical vowels project to L2; medial ENs project to L1; final ENs do not project. If the projection of an EN is incorporated, it may remain unrealized. If it cannot be incorporated, it must be filled through epenthesis. Epenthesis of [ə] occurs (i) if the EN is the first nucleus of the word, and therefore is not preceded by an incorporator (2), and (ii) if it is preceded by an empty, incorporated nucleus (3). Note that long vowels are incorporation domains (IDs).

(2)		*		*		(3)		*		*						
	*		*		*		*		*		*					
C	V	C	V	C	V	C	V	C	V	C	V					
t	ə	t	a	r	g	e	m	t	ə	t	a	r	g	ə	m	i

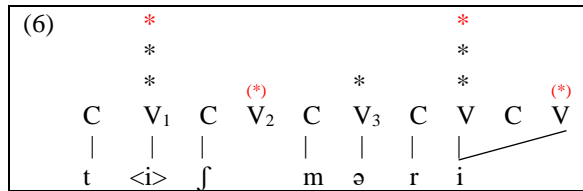
According to the present proposal, (1d) above begins with two ENs /t_ʃ_mó:r/. One expects two consecutive schwas *[təʃəmo:r] (4). But this is a lapse. Accordingly, it is transformed into an ID by strengthening the first nucleus into lexical /i/, thereby allowing it to project to L2 and incorporate the second nucleus (5). This raises a question regarding (3), with two *medial* empty nuclei. Why is

(4)		*		*		(5)		*		*		
	*		*		*		*		*		*	
C	V	C	V	C	V	C	V	C	V	C	V	
t	ə	ʃ	ə	m	o	r	t	<i>	ʃ	m	o	r

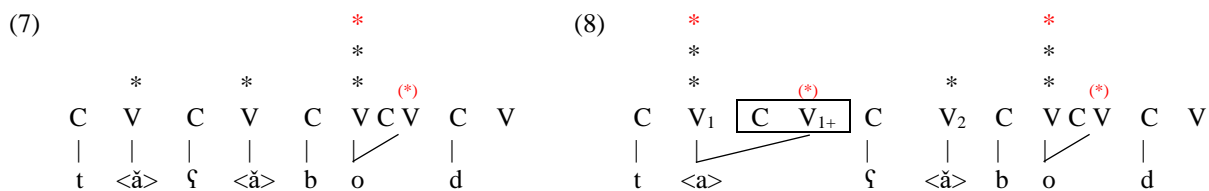
that form not realized *[tətarigmu]? It seems that if the insertion of lexical /i/ can be avoided without creating a lapse, it is.

¹ I do not explain this syncope (or the parallel one of /e/ in (1f)) in this talk. Not all the tokens in (1) are attested in TH; but they represent real patterns. Unlike Khan, I distinguish [ə] from [ǎ], because different symbols are used.

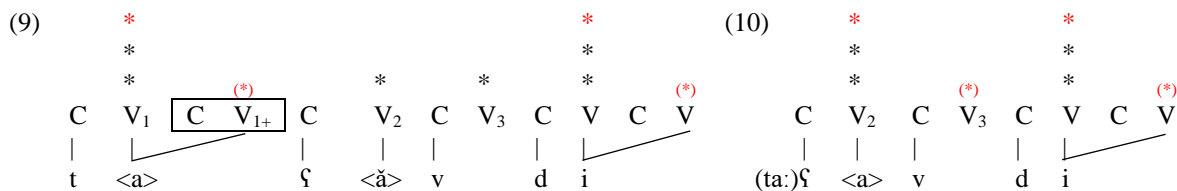
Moving on, (1b) begins with *three* ENs /t_ʃ_m_ri/ according to the present view. Again, the insertion of /i/ is unavoidable (6). Here, however, V₃ cannot be incorporated, since it is itself preceded by an incorporated V. It is realized as [ə]. An alternative form *[təʃimru:] can be ruled out by assuming a *preference* for the left alignment of the first incorporation domain.



In (5,6) above, a V₂ EN is incorporated and silent. (1h,i) pose a problem because gutturals cannot be codas: the V₂ EN *must* be realized, and therefore cannot be incorporated. Epenthesis in the first nucleus would create lapse (7 – the quality of epenthesis is an effect of the guttural). Again, V₁ must be of lexical quality (here /a/) in order to create an ID (8). Since V₂ is not incorporatable, the first vowel is lengthened through the insertion of an additional CV₁₊ (framed in (8)).



If V₃ is also empty (9), V₁ again undergoes lengthening. But unlike in (8), V₂ and V₃ now form an internal lapse. Since the post-guttural V₂ must be realized in any scenario, it is strengthened into the lexical /a/ and incorporates V₃ (10).



To summarize, the Strict-CV, incorporation-based account uses the non-lexical nature of [ə] to motivate its metric deficiency, in a way that leads to its alternation with both [i] and zero. The same account carries over to the occurrences of [a:], [a] and [ä] in stems with expected coda gutturals. Alongside its uniformizing merits, this account is also the first formal one of these TH facts, and moreover illustrates the workings of the novel “Strict CV Metrics” approach.

(Time permitting, a moraic alternative will be commented upon.)

FAUST, N. & S. ULFSBJORNINN. 2018. Arabic stress in Strict CV, with no moras, no syllables, no feet and no extrametricality. *The Linguistic Review* 35 (4), 561–600. ▪ KHAN, G. 2020. *The Tiberian Pronunciation Tradition of Biblical Hebrew, Volume I*. Cambridge, UK: Open Book Publishers ▪ LOWENSTAMM, J. 1996. CV as the only syllable type. In *Current trends in Phonology. Models and Methods*, ed. J. Durand & B. Laks, 419–441. Salford, Manchester: ESRI. ▪ PRINCE, A. 1975. *The Phonology and Morphology of Tiberian Hebrew*. PhD dissertation, MIT. ▪ SCHEER, T. 2004. *A Lateral Theory of Phonology. Vol 1: What is CVCV, and why should it be?* Berlin: Mouton de Gruyter.