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Prosodic Dependency in Tiberian Hebrew

Vincent DeCaen \& B. Elan Dresher University of Toronto

# Ernest John Revell 1934-2017 

In Memoriam

1. 

## Introduction

## Introduction

In this talk, we examine two related but different notions of prosodic freedom and dependency in Tiberian Hebrew (TH):

One is a morphosyntactic notion, whereby absolute forms are free and construct forms are dependent.

Examples of absolute forms are do:vó:r 'word' and dəvo:rím 'words'; in the construct, these become dəvár, as in dəvár hammélex 'the king's word', and divré:, as in divré: hammélex 'the king's words'.

| ABSOLUTE |  | CONSTRUCT |  |
| :--- | :--- | :--- | :--- |
| do:vó'r | 'word' | dəvár hammélex | 'the king's word' |
| dəvo:rí:m $\quad$ 'words' | divré: hammélex | 'the king's words' |  |

## Introduction

In this talk, we examine two related but different notions of prosodic freedom and dependency in Tiberian Hebrew (TH):
The other is a prosodic notion whereby free forms receive an accent (in the musical interpretation of the prosody), and dependent forms are clitics bound to a free form by a hyphen called maqqef.

An example is the accusative particle, which appears as $\mathcal{e}: \theta$ when it is prosodically free and receives a musical accent, and as $\Omega \varepsilon \theta$ - when it is prosodically bound by maqqef.

## FREE (ACCENTED)

Pé: $\theta$ haššo:máyim 'ACC the.sky'
Pé: $\theta$ šá ${ }^{\text {ar }}$ Pó:yvó:w
'ACC the.gates their foes'

BOUND WITH MAQQEF
Pe日-ho:Pó:r 'ACC-the.light'
Pع $\theta$-§é:śśzv 'ACC-the.grasses haśśo:ð́́ the.field

## Introduction

One would reasonably expect there to be isomorphism between the prosodic dependency of the construct and the system of accents:

That is, we might expect that construct words would be unaccented and marked with maqqef, and that absolute words would always be prosodically free and accented.

This is not always the case, however: a construct word is sometimes accented (dəvár) and sometimes deprived of the accent (dəvar-).

Conversely, absolute state words are sometimes deprived of an accent according to the rules governing phrasing.

It appears, therefore, that there are two distinct definitions of prosodic dependency: morphosyntactic versus accentual.

## Introduction

That is not the end of the matter, however: small nouns, that is monosyllabic stems such as le:v 'heart', še:m 'name', ḥo:q 'ordinance', ro:v 'multitude' - are caught up in a conflict between these two notions.

There is considerable variability in how these nouns behave in this respect.

In this talk we will consider the reasons for the development of two different notions of prosodic dependency.

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The prosodic dependency of the construct

## The prosodic dependency of the construct

There are various phonological differences between the absolute and construct forms.

Some of these involve differences that are morphological or morphophonological (Prince 1975; Joüon \& Muraoka 2006).
The masculine plural suffix is -i:m in the absolute form, as in dəvo:rí:m; this suffix does not appear in the construct, divré:
Instead we find an ending -e:, which may be connected to the augment found in suffixed forms such as dəvar-é:-nu:, divre:hém.

| Absolute (M) <br> do:v'́:r | 'word' | Construct (M) <br> dəvár hammélex | 'the king's word' |
| :--- | :--- | :--- | :--- |
| dəvo:r-í:m | 'words' | divr-é: hammélex | 'the king's words' |

## The prosodic dependency of the construct

In the feminine, the absolute singular form ends in - 0 :, whereas the construct singular ends in -á $\theta$.

| Absolute (F) | Construct (F) |  |
| :---: | :---: | :---: |
| ṣəð๐:q-o': 'righteousness (S)' | ṣiðq-á0 hașṣadí:q | 'the righteousness of the righteous' |
|  | ṣiðq-ó: $\theta$ YHWH | 'the gracious acts of the LORD' |

## The prosodic dependency of the construct

In the feminine, the absolute singular form ends in -o', whereas the construct singular ends in -á $\theta$.

The final -a $\theta$ appears also in the suffixed forms of the singular, such as șiðq-a $\theta-1$ ' 'my righteousness'.

Therefore, the construct morphology of both the masculine and feminine nouns has some connection to morphology found in the suffixed forms, suggesting there is some underlying form from which both the absolute and construct forms of a noun can be derived.

| Absolute (F) <br> ṣəð๐:q-ó: <br> ṣəð๐:q-ó: $\theta$ |
| :---: |
|  |  |
|  |  |



Suffixed

> | Construct (F) |
| :--- |
| ṣiðq-á $\theta$ hașãóí:q |
| șiðq-ó: $\theta$ YHWH |

ṣiðq-a -1 'my righteousness'
ṣiðq-o: $\theta$-é:-nu: 'our virtues'

## The prosodic dependency of the construct

Here, we will focus on differences between absolute and construct forms that can be attributed to differences of stress.

These are of particular interest because they support the idea that construct forms are prosodically dependent on the word that stands at the end of a construct chain.

According to Joüon \& Muraoka (2006: 253), "The two nouns form a phonetic unit...The first noun is said to be in the construct state because it rests phonetically on the second...[it] always loses something of its stress."

## The prosodic dependency of the construct

The vowel deletions and reductions observed in the construct form all follow from the assumption that a word in the construct lacks the full word stress that words in the absolute form receive.

Consider the derivations of the absolute and construct singular of do:v'́:r, based on Prince (1975) as modified by Dresher (2009a).

We assume that their lexical representations are the same, except that the construct "forms a phonetic unit" with a following word, formalized by Prince (1975) as a single word boundary, in contrast to the double word boundary that follows a word in the absolute.

Absolute
Construct

| x | x | x | x |
| :---: | :---: | :---: | :---: |
| da | bar\#\# | da bar\# | Line |
| Lexical |  |  |  |

## The prosodic dependency of the construct

a
Dresher (2009a) proposes a new analysis of Biblical Hebrew stress in the framework of the simplified bracketed grid (SBG) metrical theory (Idsardi 1992, 2009; Halle \& Idsardi 1995).

It appears thet Biblical Hebrew main stress must apply early in the derivation to account for Pretonic Lengthening and the phonology of pausal and contextual forms.

This creates a problem, in that later rules require that the early metrical feet must be over-written by conflicting feet that govern vowel reduction and deletion and secondary stress (Blake 1951, Prince 1975, Malone 1993, Balcaen 1995).

Absolute
Construct
x x x x
da bar\#\#
da bar\# Lexical

## The prosodic dependency of the construct

Dresher (2009a) proposes that rather than an early rule assigning main stress or stress feet, there is an early rule of Left Bracket Insertion (LBI):

Insert a left bracket to the left of the last vowel of the word that is not absolutely word-final.

What I am proposing here is that LBI does not operate in the domain of a single \#.

Therefore, a left bracket is inserted in the absolute form, but not in the construct.

Absolute Construct

| x | X | x | x | Left bracket insertion (LBI) |
| :---: | :---: | :---: | :--- | :--- |
| da | bar\#\# | da bar\# | Lexical | ${ }^{15}$ |

## The prosodic dependency of the construct

The next rule that applies is Pretonic Lengthening (PTL):
Lengthen a vowel in an open syllable immediately to the left of a left bracket.

PTL applies in the absolute state, but not in the construct, because the latter does not have a left bracket.

Absolute
x) (x
daa bar\#\#
daa bar

Construct
$x \quad x$
da bar\# Pretonic Lengthening (PTL)

## The prosodic dependency of the construct

The next rule that applies is Pretonic Lengthening (PTL):
Lengthen a vowel in an open syllable immediately to the left of a left bracket.

PTL applies in the absolute state, but not in the construct, because the latter does not have a left bracket.

Next, heavy syllables, which are the heads of feet, receive a right bracket.

Absolute Construct

| X) ( x$)$ | $\mathrm{x} \quad \mathrm{x})$ | Assign ) to heavy syllables |
| :---: | :---: | :---: |
| daa bar\#\# | da bar\# | Pretonic Lengthening (PTL) |

## The prosodic dependency of the construct

Then iambic (right-headed) feet are assigned by projecting the rightmost element in a foot on Line 0 to the next line.

| Absolute | Construct |  |  |
| :---: | :---: | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
| x | x | x | Foot heads |
| $\mathrm{x})$ | $(\mathrm{x})$ | x | $\mathrm{x})$ |
| daa | bar\#\# | da | Line 0 |
| dar | Pretonic Lengthening (PTL) |  |  |

## The prosodic dependency of the construct

Then iambic (right-headed) feet are assigned by projecting the rightmost element in a foot on Line 0 to the next line.

The rightmost foot head is projected to word-level stress.

| Absolute | Construct |  |  |  |
| :---: | :---: | :---: | :--- | :--- |
|  |  |  |  |  |
|  | x | x | Word stress |  |
| x | $\mathrm{x})$ |  | $\mathrm{x})$ | Foot heads |
| $\mathrm{x})$ | $(\mathrm{x})$ | x | $\mathrm{x})$ | Line 0 |
| daa | bar\#\# | da | bar\# | Pretonic Lengthening (PTL) |
|  | 19 |  |  |  |

## The prosodic dependency of the construct

Then iambic (right-headed) feet are assigned by projecting the rightmost element in a foot on Line 0 to the next line.

The rightmost foot head is projected to word-level stress.

Then words that are the heads of their Prosodic Word (clitic group) receive a further level of stress.

Absolute

| x |  |  |  |
| :---: | :---: | :---: | :---: |
|  | x) |  | x |
|  | x) |  | x) |
|  | (x) | x |  |
| daa | bar\#\# | da | bar\# |

Prosodic Word stress
Word stress
Foot heads
Line 0
Pretonic Lengthening (PTL)

## The prosodic dependency of the construct

At this point the metrical grids are in place and further rules apply:
Tone Lengthening, whereby a vowel with Prosodic Word stress is lengthened under certain conditions;

Absolute
Construct

| x |  |  |  |
| :---: | :---: | :---: | :---: |
|  | x) |  | x |
| x | x) |  | x) |
| x) | (x) | x | x) |
| daa | baar\#\# | da | bar |

da bar\#
Tone Lengthening

## The prosodic dependency of the construct

At this point the metrical grids are in place and further rules apply:
Tone Lengthening, whereby a vowel with Prosodic Word stress is lengthened under certain conditions;

Vowel reduction, whereby a vowel in the weak position of a foot looses its grid mark (is reduced or deleted);

Absolute


Vowel reduction /deletion

## The prosodic dependency of the construct

At this point the metrical grids are in place and further rules apply:
Tone Lengthening, whereby a vowel with Prosodic Word stress is lengthened under certain conditions;

Vowel reduction, whereby a vowel in the weak position of a foot looses its grid mark (is reduced or deleted);

And spirantization and rounding of [a:] to [ $\mathrm{s}:]$.

Absolute

|  | x) | x |
| :---: | :---: | :---: |
| x | x) | x) |
| x) | (x) | x) |
| dos | vosr\#\# | də var\# |

Spirantization and rounding

## The prosodic dependency of the construct

We have now derived the absolute and construct forms.

Absolute
Construct

| $x$ | $x$ |
| :--- | :--- |
| $x)$ |  |


| $x$ | $x)$ | $x)$ |
| :---: | :---: | :---: |
| $x)$ | $(x)$ | $x)$ |

x) (x) . x)
doo voor\#\#
də var\#
Absolute
Construct dəvar

## The prosodic dependency of the construct

Similarly, it can be shown (without dwelling on the steps) that the differences between the masculine plural absolute and construct forms can be derived from/dabar+i:m/ and /dabar+ay/, respectively.

The rules that construct metrical grids and PTL give the representations below.

Absolute
Construct

|  |  | x |  |  |  | Prosodic Word stress |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |
|  | x | x |  |  | x | Word stress |
|  | x | x |  | x | Foot heads |  |
| x | $\mathrm{x})$ | $(\mathrm{x})$ | $\mathrm{x})$ | x | $\mathrm{x})$ | Line 0 |
| da | baar | + iim\#\# | da | ba | r+ay\# | PTL |

## The prosodic dependency of the construct

Then, the rules of vowel reduction/deletion and other segmental rules apply to give the phonetic forms dəvor-í:m and divr-é:.

| Absolute |  | Construct |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | x |  |  | Prosodic Word stress |
|  | x |  | x | Word stress |
| x | x | x | x | Foot heads |
| x) | (x) | x) | x) | Line 0 |
| də vopr | + iim\#\# | di v | r+ee\# | Segmental rules ${ }^{26}$ |

## The prosodic dependency of the construct

We have established that almost all differences between the absolute and construct forms of a noun derive from the fact that the latter do not have the same level of stress as the former.

Another way to put this is that a construct forms a single prosodic word with a following word.

If we did not have a vocalized text of the Bible, then from the phonology alone we would be inclined to indicate that a construct form is part of the same Prosodic Word as the word that follows it.

We might, for example, leave spaces around a Prosodic Word and connect a construct to a following word with a hyphen, like below.

| ABSOLUTE | CONSTRUCT |  |
| :--- | :--- | :--- |
| do:vór t ṭó:v | 'good word' | dəvàr-hammélex 'the king's word' |

## The prosodic dependency of the construct

We actually do have such a text, but, as we mentioned at the outset, hyphens do not always appear where we would put them, based on the phonology of the construct.

This sets up a tension between the prosody we expect based on morphosyntax, and the prosody indicated in the Tiberian transcription.

## The prosodic dependency of the construct

We will show that even if the intention of the Masoretes was to indicate every construct form with a maqqef, the constraints of their system would have prevented this outcome.

In order to understand why this is, we need to review some basics of the Tiberian prosodic heirarchy and the rules of cliticization that are tightly bound up with the phrasing.


## The prosodic hierarchy

Prosodic representation mediates the relationship between phonology and syntax.

On this view, a prosodic hierarchy organizes domains in which phonological rules operate.

Thus, Selkirk (1984; 1986); Nespor \& Vogel (1986); Hayes (1989).

## The prosodic hierarchy

From the word level up, the units of the prosodic hierarchy are commonly supposed to have at least the following levels:

Prosodic Hierarchy
Utterance

Intonational Phrase

Phonological Phrase
P

| Prosodic Word <br> (including clitics) | PW |
| :--- | :--- |

## The prosodic hierarchy

The Tiberian transcription marks the bottom and top of the hierarchy very systematically.

| Prosodic Hierarchy | Tiberian Hierarchy |  |  |
| :--- | :--- | :--- | :---: |
| Utterance | U | Verse | V |
| Intonational Phrase | I |  |  |
| Phonological Phrase | P |  | PW |
| Prosodic Word <br> (including clitics) | PW | Prosodic Word <br> (including clitics) | 33 |

## Between the Utterance (Verse) and Word

Between the Utterance and the Word, the Tiberian transcription departs from our understanding of the prosodic hierarchy.

Rather than a Phonological Phrase and an Intonational Phrase, the Tiberian transcription parses each verse into a hierarchy of phrases.

| Prosodic Hierarchy | Tiberian Hierarchy |  |  |
| :--- | :--- | :---: | :---: |
| Intonational Phrase | I | Hierarchy | $\mathrm{D}_{0}$ |
|  |  | of | $\mathrm{D}_{1}$ |
| Phonological Phrase | P | phonological | $\mathrm{D}_{2}$ |
|  | phrases | $\mathrm{D}_{3}$ |  |

## Between the Utterance (Verse) and Word

The Tiberian notation distinguishes two types of accents: conjunctive and disjunctive.

A conjunctive accent, C , on a word indicates that the word is part of the same phrase as the word that follows it.

A disjunctive accent, $\mathrm{D}_{i}$, indicates that a word is final in its phrase.
$\left.\begin{array}{lrl}\begin{array}{r}\mathrm{C} \\ \text { wayyillo:ḥamú: }\end{array} & \begin{array}{c}\mathrm{D}_{2} \\ \text { (and.fought }\end{array} & \text { the.men-Judah) }\end{array} \quad \begin{array}{c}\mathrm{D}_{1} \\ \text { (ai:ru:šo:láyim }\end{array}\right)$
'And the men of Judah fought against Jerusalem' (Judg. 1.8)

## Phonological Phrase, $\mathrm{P}=$ Minimal Phrase

A phrase that ends in a disjunctive accent and which contains no other disjunctive accents is a Minimal Phrase (Strauss 2009).

We can identify the Tiberian Minimal Phrase with the Phonological Phrase, P.

In the example below, the word 'and.fought' has a conjunctive accent, and forms a minimal phrase with 'the men of Judah'.

The third prosodic word, 'against.Jerusalem', makes a second phrase.
$\left.\begin{array}{lcl}\begin{array}{r}\mathrm{C} \\ \text { wayyillo:ḥamú: }\end{array} & \begin{array}{c}\mathrm{D}_{2} \\ \text { (and.fought }\end{array} & \text { the.men-Judah) }\end{array} \quad \begin{array}{c}\mathrm{D}_{1} \\ \text { (ai:ru:šo:láyim }\end{array}\right)$
'And the men of Judah fought against Jerusalem' (Judg. 1.8)

## Phonological Phrase, $\mathrm{P}=$ Minimal Phrase

The Minimal Phrase forms the domain for three phonological rules: spirantization, gemination, and rhythmic stress shift.

In the first phrase below, the initial consonant of the second word, vane:, is spirantized from underlying /b/ because it follows a vowel that ends the preceding word in the same phrase.

By contrast, the initial /b/ of bi:ru:šo:láyim is not spirantized, though it also follows a word-final vowel, because the preceding word is not in the same minimal phrase.
$\left.\begin{array}{lrl}\begin{array}{r}\mathrm{C} \\ \text { wayyillo:ḥămú: }\end{array} & \begin{array}{c}\mathrm{D}_{2} \\ \text { (and.fought }\end{array} & \text { vəne:-yəhu:ðó: }\end{array}\right) \quad\binom{\mathrm{D}_{1}}{$ bi:ru:šo:láyim }
'And the men of Judah fought against Jerusalem' (Judg. 1.8)

## The hierarchy of disjunctive accents

Recall that the disjunctive accents form a hierarchy with four levels.
The hierarchy of disjunctives indicates that Tiberian phonological phrases are nested, so that a phrase with accent of level $\mathrm{D}_{i}$ is divided by a phrase ending in accent $\mathrm{D}_{i+1}$.

In this example, the second disjunctive, $\mathrm{D}_{1}$, terminates a non-minimal phrase comprising all three words.

This non-minimal phrase is divided by accent $\mathrm{D}_{2}$.
$\left(\begin{array}{rrl}\left(\begin{array}{rr}\mathrm{C} \\ \text { wayyillo:hămú: }\end{array}\right. & \left.\begin{array}{r}\mathrm{D}_{2} \\ \text { vəne:-yəhu:đó: }\end{array}\right) & \binom{\mathrm{D}_{1}}{\text { bi:ru:š:láyim }}\end{array}\right)$

## The hierarchy of disjunctive accents

The prosodic structure can be represented as a tree, where a phrase ending in a disjunctive $\mathrm{D}_{i}$ is itself labelled $\mathrm{D}_{i}$.

Here, the inner phrase is labelled $\mathrm{D}_{2}$, and the entire phrase is a $\mathrm{D}_{1}$.


## The hierarchy of disjunctive accents

Why does this phrase end in $\mathrm{D}_{1}$ ? Recall that the top of the hierarchy is labelled $\mathrm{D}_{0}$.
The three prosodic words below form the beginning of a verse; the phrasing of the complete verse is shown in the next slide.


## Phrasing of Judges 1.8

The verse has 10 prosodic words, labelled $\mathrm{PW}_{1}-\mathrm{PW}_{10}$. There are seven Minimal Phrases (MPs), indicated by ( ).


## Phrasing of Judges 1.8

These MPs can be equated with the Phonological Phrase, $P$, and serve as the domain of the three phonological rules mentioned above.


## Phrasing of Judges 1.8

The higher level phrases are not associated with phonological rules, but indicate how the P-phrases are organized.


## Phrasing of Judges 1.8

The verse is divided into two parts by $\mathrm{D}_{0}$ accents. The largest break comes after PW7, which ends the first half-verse.


## Phrasing of Judges 1.8

There are a maximum of two $D_{0}$ accents in a verse. Every verse ends in a $D_{0}$ accent. Short verses may lack a second $D_{0}$.


## Phrasing of Judges 1.8

Consider the first half-verse. It consists of five MPs.
The main division comes after the second MP $\left(\mathrm{PW}_{3}\right)$. Since the whole half-verse ends in $\mathrm{D}_{0}$, it is divided by a $\mathrm{D}_{1}$ accent on $\mathrm{PW}_{3}$.


## Phrasing of Judges 1.8

This $\mathrm{D}_{1}$ phrase is in turn divided by a $\mathrm{D}_{2}$ accent on $\mathrm{PW}_{2}$. This is the three-word phrase we looked at earlier.


## Purpose of the hierarchy of disjunctives

This organization is important in governing a series of phrasal simplification rules: in certain prosodic conditions, two or more MPs may be combined into one.


## Purpose of the hierarchy of disjunctives

It also crucially interacts with cliticization, which is sensitive to position in the prosodic tree.

and. the.men- against. and. ACC. and.they. to-the. and.ACC- they. on. fought of.Judah Jerusalem captured it put.it sword the.city set fire

## 4.

The Tiberian prosodic
hierarchy and the rules of cliticization

## Cliticization and phrasing

In this section we review some principles governing cliticization in Tiberian Hebrew, as set out by Breuer (1982), Dresher (2009b), and Holmstedt \& Dresher (2013).

We can begin with the accusative particle, which takes the form $\mathrm{P} \varepsilon \theta$ when it is a clitic, and Pé: $\theta$ when it stands as an independent Prosodic Word.

The lengthened vowel is due to the aforementioned rule of Tone Lengthening under the main stress of a Prosodic Word.

This particle is one of the most easily cliticizable morphemes, and in the majority of cases it is attached by maqqef to the following word.

However, there are various cases where cliticization does not occur.

## Cliticization constrained in $\mathrm{D}_{0}$

First, there is a very strong constraint that the half-verse, which ends with a $\mathrm{D}_{0}$ accent, should consist of at least two phrases.

In some verses, the main division is such that one of the half-verses contains only two words, one of which is a small cliticizable word.

In such a case, the small word almost always remains an independent word in its own phrase, marked with a disjunctive accent, as in the example below (Gen 22:22).

| PW (wəPé: $\theta$ ) and. ACC (bə Bethuel |  |
| :---: | :---: |

## Cliticization constrained in $\mathrm{D}_{0}$

Another constraint is that a long word does not easily coexist with another word in a Minimal Phrase governed by $\mathrm{D}_{0}$.

Thus, a small word is generally not cliticized to a long word in a DO phrase but again is placed in its own phrase with a disjunctive accent.

This phenomenon is illustrated by the following verses.


## Constraints on cliticization

In general, the conditions on cliticization are very restrictive in prominent prosodic positions (in the domain of $\mathrm{D}_{0}$ ), and become more liberal as one proceeds down the prosodic hierarchy.

Thus, returning to construct forms, it follows that though we may want to cliticize them all the time, in many positions cliticization would violate the phrasing rules.

We can illustrate this point with some verses from the book of Esther, though similar examples occur all through the Bible.

## Constraints on cliticization

In this verse, the construct ðəvar is in the domain of D2, that is, not in a prominent prosodic position.

Therefore, cliticization can proceed even though it creates a long Prosodic Word, and the preceding PW is assigned a conjunctive accent to complete the two-word MP.

Esth 1:17


PW
(ki:-ye:ṣé:
for-will.get-out the.behaviour-the.queen

## Constraints on cliticization

In this verse the construct biðvá:r is in the domain of $\mathrm{D}_{1}$. If it were cliticized with the following word it would create a PW that is too long, so the phrasing of the previous verse is not allowed here.

Esth 1:12


PW
(lo:vó:?) to.come at.the.command the.king

## Constraints on cliticization

Here is a different complication: the combination 'Persian and Media' is typically kept together as a single PW, leaving the construct to form a second PW on its own.

Note the spirantization in foras- and its retracted secondary stress, the result of treating fo'ras-umo: đáy as a single PW.

Esth 1:19


PW
(bəðっ:Өé: into.the.laws

PW
fo:ras-umo:ðáy)
Persia-and.Media

## 5.

Small nouns

## Small nouns

We will start our survey of small nouns with do:m 'blood' and yo:ð 'hand'.

They behave just like we would expect, based on what we observed from nouns like do:vo'r.

The absolute forms are always free and have a long vowel.
The construct forms tend to be cliticized, except when prevented by the phrasing rules; their vowel is always short.

| ABSOLUTE <br> dó:m | 'blood' | CONSTRUCT <br> dam-zi:vḥí:) $D_{0}$ <br> (dam ho:?o:šó:m) $D_{0}$ | Ex. 23:18 <br> Lev. 14:17 |
| :--- | :--- | :---: | :--- |
| yó:ð | 'hand' | yað-parGó:) $D_{1}$ <br> (Gal-yád yo:sé:f)D $D_{1}$ | Gen. 41:35 |

## Small nouns

Other small nouns do not all behave like this; we will continue with nouns with stem vowel [ $\mathrm{o}:]$ whose suffixed forms have [ u$]$.

Consider kó: $1 \sim$ kol 'all', which occurs over 5,000 times. We expect it to be kó:l when absolute and kol in construct, independent of maqqef.

The absolute forms are always free and have a long vowel as expected.
But the construct forms depend on the phrasing: with 3 exceptions, they are short with maqqef, but long when accented.

| ABSOLUTE | 'all' | CONSTRUCT |  |
| :--- | :--- | :--- | ---: |
|  |  | kol- | 4,342 |
| kó:1 | 396 |  | kó:l- |
|  |  | kj́l | 1 |
|  |  | kó:l | 2 |
|  |  |  | 460 |

## Small nouns

That is, kó:l behaves like the accusative particle ?é: $\theta$ in being sensitive to phrasing.

Of course, morphosyntactically Pé: $\theta$ is always the same. Perhaps kó:l is itself becoming a grammatical particle.

| ABSOLUTE | 'all' | CONSTRUCT |  |  |
| :--- | :--- | :--- | ---: | :--- |
|  |  | kol- | 4,342 |  |
| kó:1 | 396 |  | ko:l- | 1 |
|  |  | kól | 2 |  |
|  |  | kó:l | 460 | ${ }^{61}$ |

## Small nouns

Another frequent small noun in this class is ró:v 'multitude'.
In absolute it is as expected, prosodically free and with a long vowel.
When in construct and prosodically free, the vowel is always long, following the prosody like kó:l does.

When bound by maqqef, the construct is usually short, again like kol-. But there are relatively ( $3 / 15$ ) more long vowels with maqqef.

| ABSOLUTE | 'all' | CONSTRUCT |  |
| :--- | :--- | :--- | ---: |
|  |  | rov- | 12 |
| ró:v | 67 |  | ro:v- |

## Small nouns

ḥó:q 'statute' in absolute is mostly free and has a long vowel, with one exception (ḥっq-no: $\theta$ án Ps. 148:6).

The construct is mostly bound with maqqef, and has a short vowel 14 times next to 3 forms with a long vowel.

There is also one free construct form with a long vowel.

| ABSOLUTE | 'statute' | CONSTRUCT |  |  |
| :--- | ---: | :--- | :--- | ---: |
| há:q | 21 |  | ḥoq- | 14 |
| hó:q- | 1 |  | ḥo:q- | 3 |
| ḥoq | 0 |  | ḥoq | 0 |
| ḥoq- | 1 |  | ḥó:q | 1 |

## Small nouns

Finally, we will consider some small nouns with stem vowel [e:].
The normal absolute of lé:v 'heart' is free with a long vowel. Surprisingly, there are 3 bound absolute forms with a short vowel, all in stress clash: lev-ṭó:v, lev-ró'S.

In the construct, there are 13 forms with short vowels, all in clash (levPí:š, lev-mélex), and 2 forms with long vowels when not in clash.

For this word, then, stress clash is the best predictor of vowel length.

| ABSOLUTE |  | 'heart' | CONSTRUCT |  |
| :--- | :---: | :--- | ---: | :---: |
| lé:v | many | lev- | 13 |  |
| lé:v- | 1 | le:v- | 1 |  |
| l $\varepsilon v$ | 0 | lév | 0 |  |
| lev- | 3 | lé:v | 1 |  |

## Small nouns

Similarly, šé:m 'name' has a long vowel except for 6 cases where the construct is bound and in a stress clash.

ABSOLUTE 'name' CONSTRUCT
šé:m, šé:m-
še:m-, še:m, except $6 x$ šem- in clash

## Small nouns

Finally, bé:n 'son' has a long vowel in the absolute and a short vowel in the construct, whether these forms are free or bound.

We saw an example of a bound absolute form yesterday in Susan Rothstein's paper, bé:n-šišší: 'a sixth son' (Gen. 30:19).

It has a long vowel despite being bound with maqqef.

| ABSOLUTE | 'son' | CONSTRUCT |
| :--- | :--- | :--- |
| bé:n, bé:n- |  | ben-, ben |

## Small nouns

To sum up, some small nouns follow the morphosyntax, some follow the prosody, and some have more complicated behaviours.

It should be mentioned that this is an area where manuscripts tend to differ, because the lack of clear principles make these forms particularly prone to copying errors.

## 6.

Conclusion

## Conclusion

To conclude, we have argued that the reason for the divergence between construct phonology and the prosody is to be found in basic principles of Tiberian phrasing, which force many construct forms to be independent prosodic words.

In earlier work (Dresher 1994; DeCaen 2005, 2009) we have also argued that the Tiberian phrasing is not a made-up system, but has properties found in other prosodic systems, and appears to reflect an actual reading tradition grounded in natural speech.

So if something like Tiberian phrasing was operative at the time when construct phonology emerged, could it be that all construct forms at one time followed the prosody the way some small nouns do in the Tiberian text?

## Conclusion

That is, the construct of do:vo'r would have been dəvar- when actually prosodically dependent on a following word, but would have been do:vo:r when the phrasing prevented its cliticization.

If this line of thinking is correct, it would suggest that the behaviour of some of the small nouns is not simply an innovation that is a reaction to a chaotic system, but might point back to a time when all construct forms alternated depending on their prosodic representation.

## THANK YOU!



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