

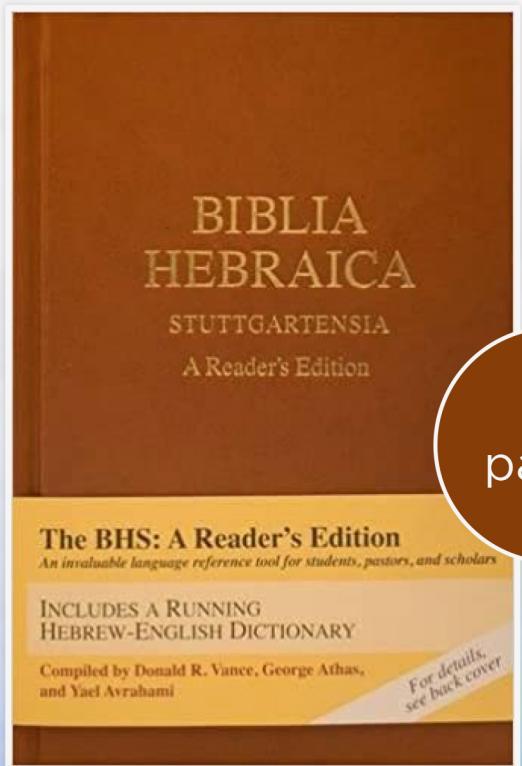
A Simplified Version of Biblical Hebrew Verb Paradigms: **A Periodic Table Approach**

Melak Alemayehu Tsegaw

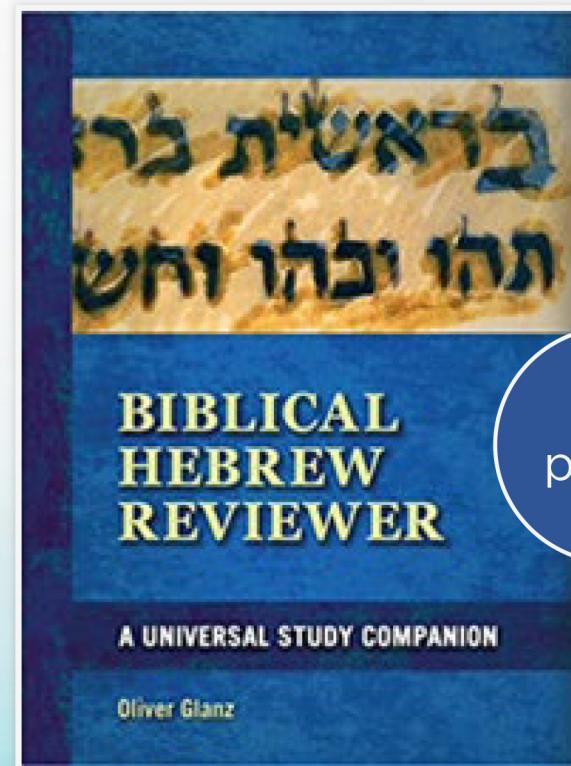
Adventist University of Africa



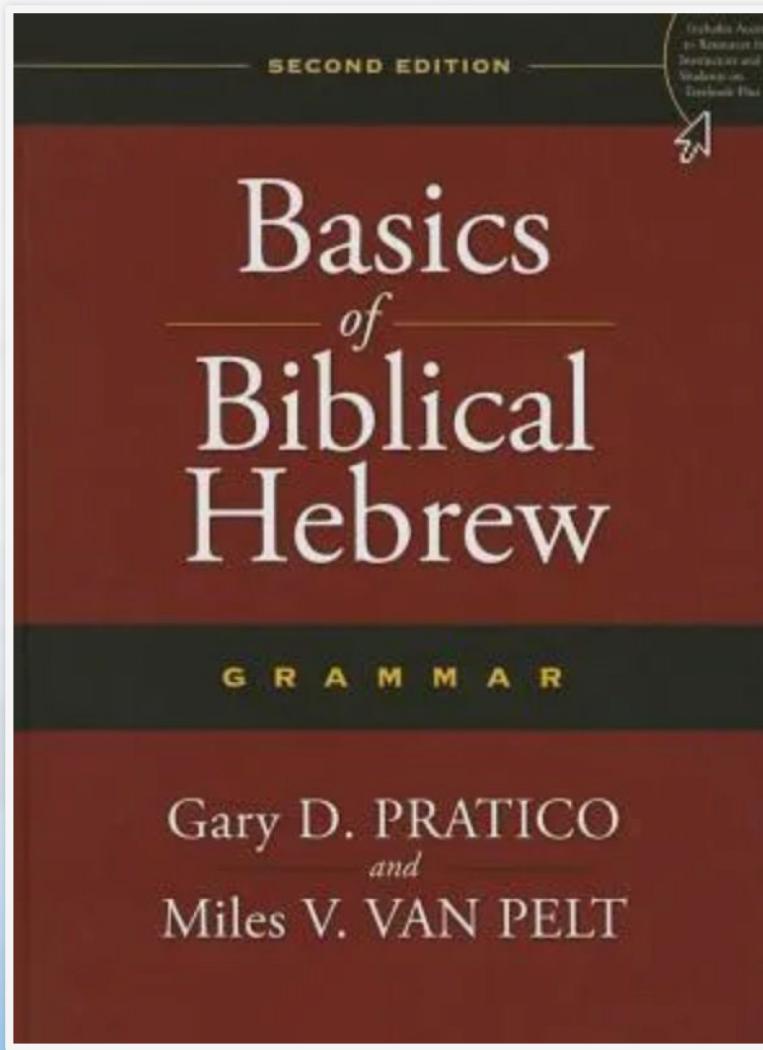
COMPREHENSIVE PRESENTATION OF BH PARADIGMS



**Biblia Hebraica Stuttgartensia:
A Reader's Edition**



**Biblical Hebrew Reviewer:
A Universal Study Companion**



The Challenges of Using the Traditional Paradigms approach

- Students feel overwhelmed and even discouraged at times.
- Students will soon discover that there are significant number of weak verbs that they can not simply parse with the help of the strong verb paradigms on which they spend most of their time.

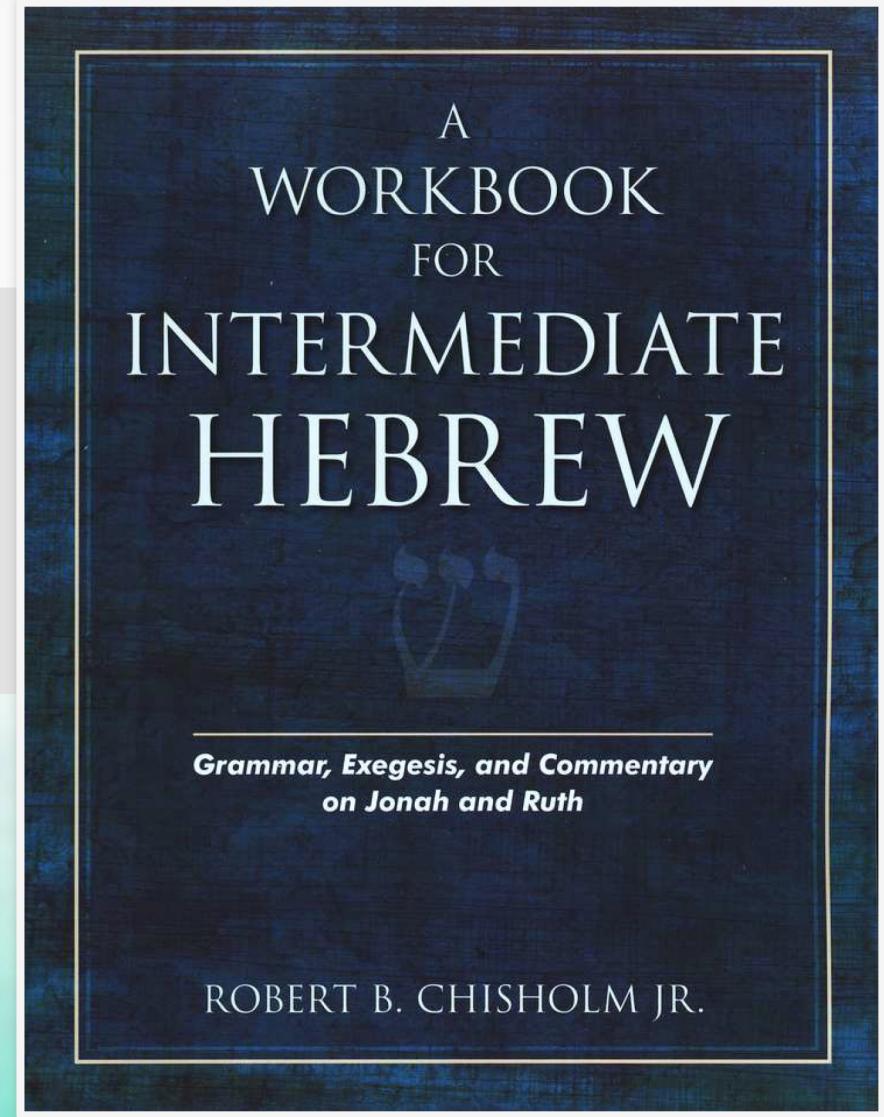
The Challenges of Using the Traditional Paradigms approach

- Students should first be able to know the root letters and the stem to consult the right table. And this poses a great challenge for beginners.
- When one of the three consonants drops or assimilates, it will be more difficult to identify which paradigm to use.

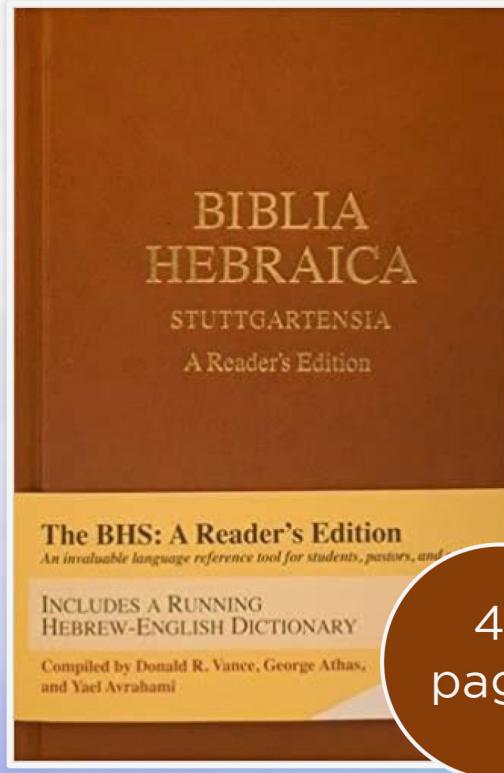
The Challenges of Using the Traditional Paradigms approach

- Similar preformatives of different stems and conjugations require students to refer several tables.
- Most of the tables does not show the changes that occur when a verb comes with objective suffixes.
- The tables contain unattested forms that are of no use for the parsing of the BH text.

Another Approach(es)



The Periodic Table Approach



N	M	L	K	J	I	H	G	F	E	D	C	B	A
V ₁	PTP Q PRF OS 2mp/fp	Q IMV/INC 2m/fp Q PRF 2m/fp	-: I-Gu										D IMV II-1 INC G Q
V ₁	Q PRF 2mp/fp	Dp PER V2-a											D PRF C2-D,F D IMV Q PTA V2-1 T Q INA V2-1
V ₁	Q IMV ms/fp Q INC	Q PTA Q IMV/INC G	Q PRF INC IMV	Q PRF B INC	Dp PER Q IMV B								D PRF B/G Q PRF T Q IMV I-3
tD	Pf תְּנָא IMP	Pf תְּנָא IMP	Pf תְּהַת PER	Pf תְּהַת WC									
P דִּבֶּר D	Dp PTA D PTA V1-a H PTA B		H PTA I-3	H PTA I-3	H PTP PTD B/G	H PTP B/G							
Pf נִנְנָה													
DEF-נִ INT-נִ													
Pf נִנְנָה													
5													
Pf נִנְנָה													
4													
Pf נִנְנָה													
Pf נִנְנָה													
3													
Pf נִנְנָה													
2													
Pf נִנְנָה													
1													
OS	PRF 3ms PTA Ø ms IMP/V 2ms												

THE PERIODIC TABLE OF HEBREW VERB DIAGNOSTICS
Melak A. Tsegaw, PhD

This diagram illustrates the Periodic Table of Hebrew Verb Diagnostics, mapping verb forms across a grid of stems and conjugations.

Key:

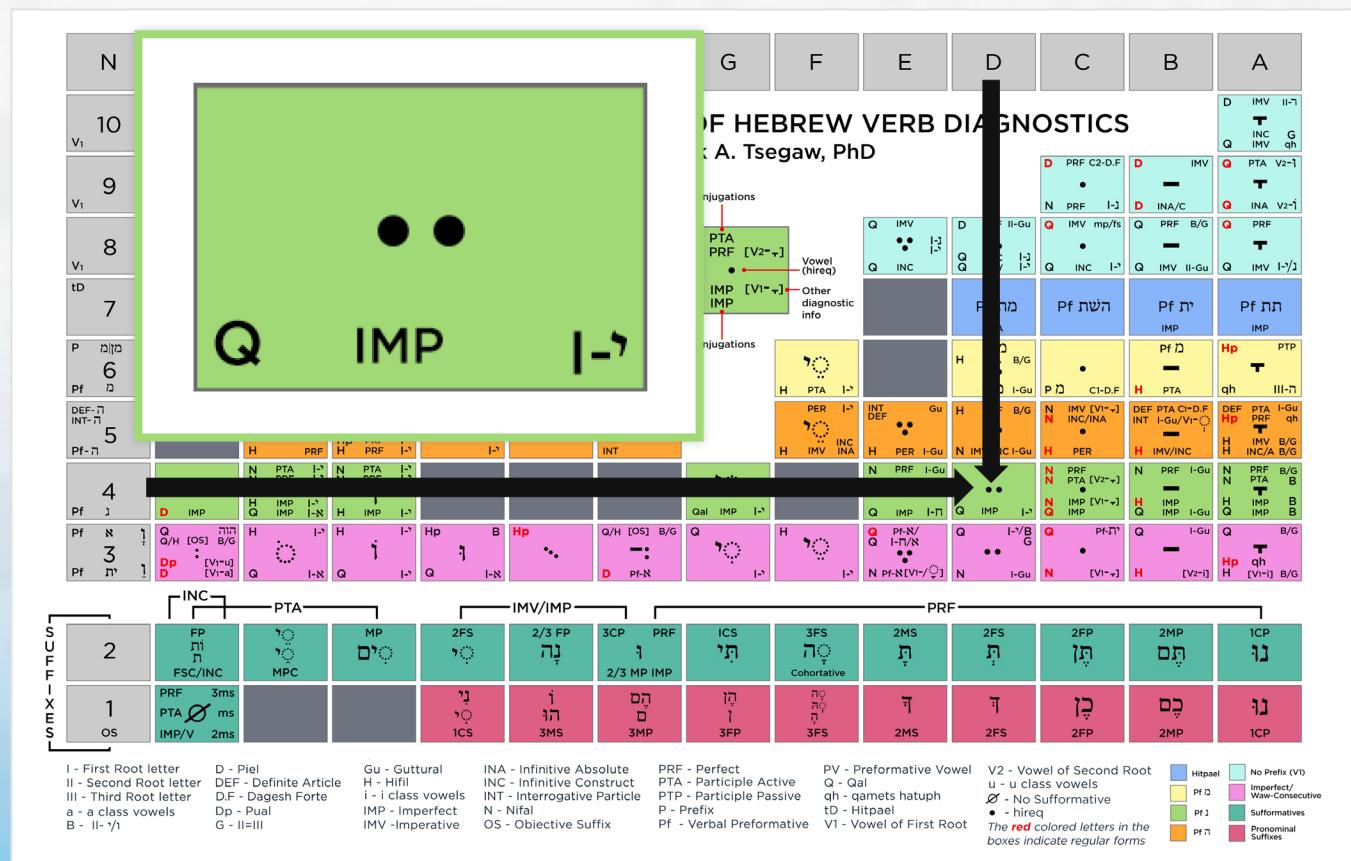
- Stems:** N (Nifal), N (Nifal), N (Nifal), PTA (Participle Active), PTA (Participle Active), PTA (Participle Active), IMP (Imperative), IMP (Imperative), IMP (Imperative), PRF (Perfect), PRF (Perfect), PRF (Perfect), 2MS (Second Person Singular), 2FS (Second Person Feminine Singular), 2FP (Second Person Feminine Plural), 2MP (Second Person masculine Plural), 1CP (First Person Plural).
- Conjugations:** Vowel (Ghershet), Other diagnostic info.
- Color Coding:**
 - Red: Regular forms.
 - Blue: Hif'il.
 - Green: Waw-consecutive.
 - Yellow: Imperfect.
 - Orange: Hiph'il.
 - Grey: No prefix (V1).
 - Light Blue: Impersonal.
 - Light Green: Suffixative.
 - Light Orange: Hiph'il.
 - Light Yellow: Hif'il.
 - Light Grey: No suffix (V2).

Legend:

- I - First Root letter
- II - Second Root letter
- III - Third Root letter
- a - a class vowels
- B - B-ll-γ/ḥ
- D - Dpiel
- DEF - Definite Article
- H - Hif'il
- i - i class vowels
- IMP - Imperative
- GU - Guttural
- INA - Infinitive Absolute
- INC - Infinitive Construct
- INT - Interrogative Particle
- N - Nifal
- OS - Objective Suffix
- PRF - Perfect
- PTA - Participle Active
- PP - Participle Passive
- P - Prefix
- PF - Verbal Preformative
- PV - Preformative Vowel
- Q - Qal
- Qal - qamets hatuph
- Q - u class vowels
- q - qamets
- PF 1 - hiph'il
- PF 2 - hif'il
- PF 3 - waw-consecutive
- PF 4 - suffixative
- PF 5 - impersonal
- PF 6 - hiph'il
- PF 7 - hif'il
- PF 8 - waw-consecutive
- PF 9 - suffixative
- PF 10 - impersonal
- PF 11 - hiph'il
- PF 12 - hif'il
- PF 13 - waw-consecutive
- PF 14 - suffixative
- PF 15 - impersonal
- PF 16 - hiph'il
- PF 17 - hif'il
- PF 18 - waw-consecutive
- PF 19 - suffixative
- PF 20 - impersonal
- PF 21 - hiph'il
- PF 22 - hif'il
- PF 23 - waw-consecutive
- PF 24 - suffixative
- PF 25 - impersonal
- PF 26 - hiph'il
- PF 27 - hif'il
- PF 28 - waw-consecutive
- PF 29 - suffixative
- PF 30 - impersonal
- PF 31 - hiph'il
- PF 32 - hif'il
- PF 33 - waw-consecutive
- PF 34 - suffixative
- PF 35 - impersonal
- PF 36 - hiph'il
- PF 37 - hif'il
- PF 38 - waw-consecutive
- PF 39 - suffixative
- PF 40 - impersonal
- PF 41 - hiph'il
- PF 42 - hif'il
- PF 43 - waw-consecutive
- PF 44 - suffixative
- PF 45 - impersonal
- PF 46 - hiph'il
- PF 47 - hif'il
- PF 48 - waw-consecutive
- PF 49 - suffixative
- PF 50 - impersonal
- PF 51 - hiph'il
- PF 52 - hif'il
- PF 53 - waw-consecutive
- PF 54 - suffixative
- PF 55 - impersonal
- PF 56 - hiph'il
- PF 57 - hif'il
- PF 58 - waw-consecutive
- PF 59 - suffixative
- PF 60 - impersonal
- PF 61 - hiph'il
- PF 62 - hif'il
- PF 63 - waw-consecutive
- PF 64 - suffixative
- PF 65 - impersonal
- PF 66 - hiph'il
- PF 67 - hif'il
- PF 68 - waw-consecutive
- PF 69 - suffixative
- PF 70 - impersonal
- PF 71 - hiph'il
- PF 72 - hif'il
- PF 73 - waw-consecutive
- PF 74 - suffixative
- PF 75 - impersonal
- PF 76 - hiph'il
- PF 77 - hif'il
- PF 78 - waw-consecutive
- PF 79 - suffixative
- PF 80 - impersonal
- PF 81 - hiph'il
- PF 82 - hif'il
- PF 83 - waw-consecutive
- PF 84 - suffixative
- PF 85 - impersonal
- PF 86 - hiph'il
- PF 87 - hif'il
- PF 88 - waw-consecutive
- PF 89 - suffixative
- PF 90 - impersonal
- PF 91 - hiph'il
- PF 92 - hif'il
- PF 93 - waw-consecutive
- PF 94 - suffixative
- PF 95 - impersonal
- PF 96 - hiph'il
- PF 97 - hif'il
- PF 98 - waw-consecutive
- PF 99 - suffixative
- PF 100 - impersonal

The Periodic Table Approach

Reference can be made to each box by combining its row and column.



Rows 1 and 2

THE PERIODIC TABLE OF HEBREW VERB DIAGNOSTICS
Melak A. Tsegaw, PhD

SUFFIXES	INC	PTA		IMV/IMP				PRF						
	2	FP וְתִ FSC/INC	MP וְיִם MPC	2FS וְיִ	2/3 FP וְנָהּ	3CP וְהַ	PRF וְ 2/3 MP IMP	ICS וְתִי	3FS וְהָתִי Cohortative	2MS וְתָתִי	2FS וְתִי	2FP וְתִי	2MP וְתִים	1CP וְנוּ
1 OS	PRF וְתִ 3ms	PTA וְתִ ms												

SUFFIXES	INC	PTA		IMV/IMP				PRF						
	2	FP וְתִ FSC/INC	MP וְיִם MPC	2FS וְיִ	2/3 FP וְנָהּ	3CP וְהַ	PRF וְ 2/3 MP IMP	ICS וְתִי	3FS וְהָתִי Cohortative	2MS וְתָתִי	2FS וְתִי	2FP וְתִי	2MP וְתִים	1CP וְנוּ
1 OS	PRF וְתִ 3ms	PTA וְתִ ms												

I - First Root letter D - Piel
 II - Second Root letter DEF - Definite Article
 III - Third Root letter H - Hifil
 a - a class vowels i - i class vowels
 B - II-γ IMP - Imperfect
 Dp - Dual IMV - Imperative
 G - II=III N - Nifal
 OS - Objective Suffix OS - Objective Suffix
 Gu - Guttural INC - Infinitive Absolute
 INT - Interrogative Particle
 PTP - Perfect
 Q - Qal
 PTA - Participle Active
 PTP - Participle Passive
 P - Prefix
 Pf - Verbal Preformative
 V1 - Vowel of First Root
 V2 - Vowel of Second Root
 u - u class vowels
 Ø - No Suffixative
 • - hireq
 The red colored letters in the boxes indicate regular forms.

■ Hitpael ■ No Prefix (V1)
■ Pf יְ ■ Imperf/ Waw-Consecutive
■ Pf יִ ■ Sufformatives
■ Pf תִּ ■ Pronominal Suffixes

Rows 3 to 6

Row 7

N	M	L	K	J	I	H	G	F	E	D	C	B	A
10 V1	PTP • Q PRF OS	Q IMV/INC 2m/fp —: I-Gu Q PRF 2m/fp											D IMV II-ג T INC IMV G qh Q PTA V2-ג
9 V1	Q PRF • 2mp/fp	Dp PER V2-a											D PRF C2-D-F • N PRF I-ג D INA/C D IMV
8 V1	Q PTA • Q INC	Q PTA B IMV INC	Q PRF B IMV INC	Q PRF B IMV INC	Dp PER • Q IMV B								Q PTA V2-ג T INC IMV G qh Q PTA V2-ג
tD 7	Pf אָתָּה IMP	Pf נָתַּתְּ IMP	Pf הָתַּתְּ PER		Pf וְתַּתְּנִיתְּ WC								

THE PERIODIC TABLE OF HEBREW VERB DIAGNOSTICS
Melak A. Tsegaw, PhD

Conjugations
Stems
Vowel (hireq)
Other diagnostic info

tD 7	Pf אָתָּה IMP	Pf נָתַּתְּ IMP	Pf הָתַּתְּ PER	Pf וְתַּתְּנִיתְּ WC								
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Pf אָתָּה 3 Dp נָתַּתְּ [V1-u] [V1-a]	Q/H [OS] B/G • Q	I-R I-R Q	I-R I-R Q	I-R I-R Q	I-R I-R Q	I-R I-R Q	I-R I-R Q	I-R I-R Q	I-R I-R Q	I-R I-R Q	I-R I-R Q	I-R I-R Q	
INC PTA IMV/IMP PRF													
SUFFS I-XES	2 FSC/INC	MP MPC	2FS I-R	2/3 FP I-R	3CP PRF 2/3 MP IMP	ICS I-R	3FS I-R Cohortative	2MS I-R	2FS I-R	2FP I-R	2MP I-R	1CP I-R	
1 OS	PRF 3ms PTA Ø ms IMP/V 2ms		1CS I-R	3MS I-R	3MP I-R	3FP I-R	3FS I-R Cohortative	2MS I-R	2FS I-R	2FP I-R	2MP I-R	1CP I-R	

I - First Root letter
II - Second Root letter
III - Third Root letter
a - a class vowels
B - II-γ
DEF - Definite Article
D.F - Dagesh Forte
Dp - Pual
G - II=III
Gu - Guttural
H - Hifil
i - i class vowels
IMP - Imperfect
IMV - Imperative
INC - Infinitive Absolute
INT - Interrogative Particle
N - Nifal
OS - Objective Suffix
PRF - Perfect
PTA - Participle Active
PTP - Participle Passive
P - Prefix
Pf - Verbal Preformative
V1 - Vowel of First Root
V2 - Vowel of Second Root
u - u class vowels
Ø - No Suffixative
• - hireq
The red colored letters in the boxes indicate regular forms

Hitpael No Prefix (V1)
Pf יְהִי Imperfect/ Wav-Consecutive
Pf יְהִי Sufformatives
Pf יְהִי Pronominal Suffixes

Rows 8 to 10

N	M	L	K	J	I	H	G	F	E	D	C	B	A
10 V1	PTP Q PRF OS	Q IMV/INC 2m/fp Q PRF 2m/fp	-: I-Gu										D IMV II-7 T INC IMV G qh Q

THE PERIODIC TABLE OF HEBREW VERB DIAGNOSTICS

Melak A. Tseqaw, PhD

10 V1	PTP Q PRF OS	Q IMV/INC 2m/fp -: I-Gu			
9 V1	Q PRF 2mp/fp	Dp PER V2-a			
8 V1	Q IMV ms/fp Q INC	Q PTA IMV	Q PRF INC	Q PRF INC	Dp PER B

D IMV II-7 T INC IMV G qh Q	D PRF C2-D.F N PRF I-1	D IMV D INA/C	D PTA V2-1 Q INA V2-1
Q IMV Q INC	D PRF II-Gu Q Q INC IMV	Q IMV mp/fs Q INC I-1	Q PRF B/G Q IMV II-Gu
Q INC	Q INC I-1	Q PRF B/G Q IMV II-Gu	Q PRF Q IMV I-1/1



INC		PTA		IMV/IMP		PRF							
S U F F	2	FP נִנְ	MP מִיּוֹ	2FS יָ	2/3 FP נֶהָ	3CP PRF נִיּ	ICS תִּ	3FS נַהֲ	2MS תֵּ	2FS תָּ	2FP תַּתָּ	2MP תַּמָּ	1CP גַּ
I X E S	1 OS	PRF פְּרִ 3ms PTA ○ ms IMP/V 2ms	MPC	1CS יִנְ	3MS נְהִ	3MP תִּ	3FP תְּ	3FS תַּהְ	2MS תֵּ	2FS תָּ	2FP תַּתָּ	2MP תַּמָּ	1CP גַּ

I - First Root letter
II - Second Root letter
III - Third Root letter
a - a class vowels
B - II-γ/1

D - Piel
DEF - Definite Article
D.F - Dagesh Forte
Dp - Pual
G - II=III

Gu - Guttural
H - Hifil
I - i class vowels
IMP - Imperfect
IMV - Imperative

INA - Infinitive Absolute
INC - Infinitive Construct
INT - Interrogative Particle
N - Nifal
OS - Objective Suffix

PRF - Perfect
PTA - Participle Active
PTP - Participle Passive
P - Prefix
Pf - Verbal Preformative

PV - Preformative Vowel
Q - Qal
qh - qamets hatuph
tD - Hitpa'el
V1 - Vowel of First Root

V2 - Vowel of Second Root
u - u class vowels
∅ - No Suffixative
● - hireq
The red colored letters in the boxes indicate regular forms

Hitpa'el
Pf II
Pf I
Pf N
No Prefix (V1)
Imperfect/
Wav-Consecutive
Pf J
Pf N
Pronominal
Suffixes

Recommended Steps

- **Step 1** - Check if suffixes of Row 1 and/or Row 2 are present
- **Step 2** - Check if the verb comes with a preformative and use the row that matches (Rows 3-7).
- **Step 3** - Check if the verb is without a preformative and focus on Rows 8-10.

Examples

דברת

D PRF C2-D.F

N PRF I-ג

2MS

ל-ים

C TABLE OF HEBREW VERB DIAGNOSTICS
Melak A. Tsegaw, PhD

The grid contains various diagnostic markers such as 'Conjugations', 'Stems', 'Vowel (hireq)', 'Other diagnostic info', and specific letter combinations like 'H PTA I-ג'.

Legend:

- Hitpael
- Pf י
- Pf ו
- Suffixes
- No Prefix (VD)
- Imperfect/Wav-Consecutive
- Pf נ
- Pf ת
- Pronominal Suffixes

Definitions:

- Absolute Constructive Particle
- PRF - Perfect
- PTA - Participle Active
- PTP - Participle Passive
- P - Prefix
- Pf - Verbal Preformative
- PV - Preformative Vowel
- Q - Qal
- V1 - Vowel of First Root
- V2 - Vowel of Second Root
- u - u class vowels
- ∅ - No Suffixative
- - hireq
- The red colored letters in the boxes indicate regular forms

Examples

הוֹשַׁעֲתָנוּ

C TABLE OF HEBREW VERB DIAGNOSTICS
Melak A. Tsegaw, PhD

The diagram illustrates the analysis of the Hebrew verb 'הוֹשַׁעֲתָנוּ' (hosha'atnu) using the C Table of Hebrew Verb Diagnostics.

Key Components:

- Main Grid:** A large grid where each cell represents a different combination of stems, conjugations, and other diagnostic information.
- Zoomed-in View:** A detailed look at the first column of the grid, showing various forms like PTA, PRF, IMP, etc., with arrows pointing to specific features.
- 1CP Box:** A red box highlighting the suffix 'תָנוּ' (t-n-u), which corresponds to the 1CP (First Person Plural) form in the grid.
- 2MS Box:** A green box highlighting the suffix 'תָנוּ' (t-n-u), which corresponds to the 2MS (Second Person Plural) form in the grid.
- Legend:** A legend at the bottom right explains the color-coding and symbols used in the grid.

Legend:

- Blue: Hitpael
- Yellow: Pf Q
- Pink: Imperf/Wav-Consecutive
- Green: Pf J
- Teal: Suffixatives
- Orange: Pf N
- Red: Pronominal Suffixes

Definitions:

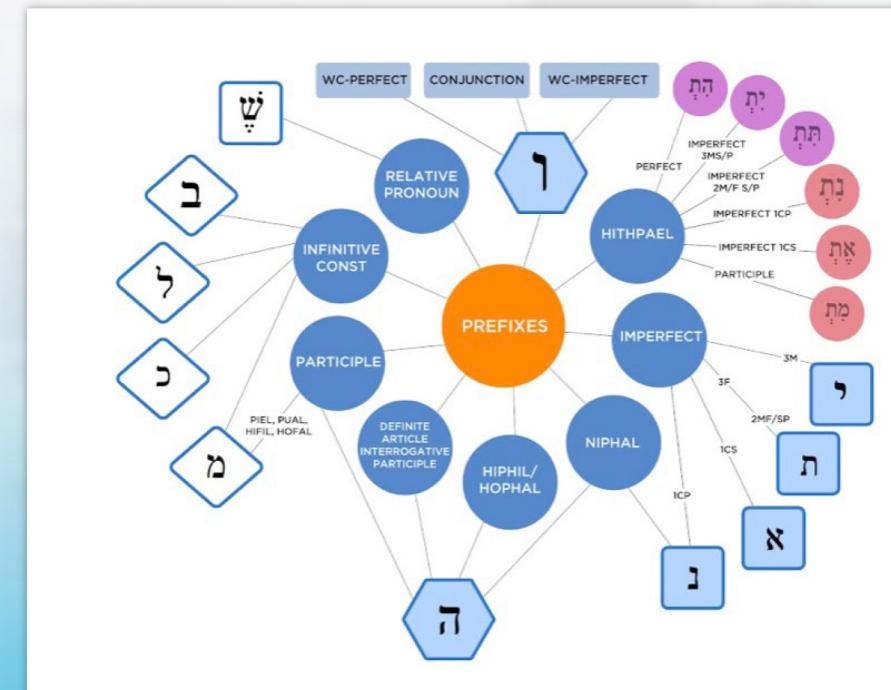
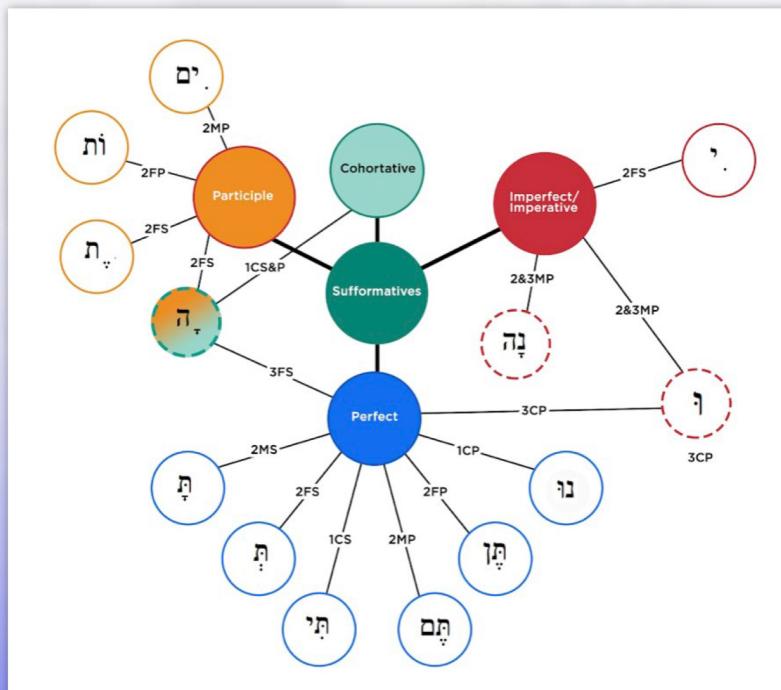
- Absolute Constructive Particle
- Suffix
- PRF - Perfect
- PTA - Participle Active
- PTP - Participle Passive
- P - Prefix
- Pf - Verbal Preformative
- PV - Preformative Vowel
- Q - Qal
- Qh - qamets hatuph
- Td - Hitpael
- V1 - Vowel of First Root
- V2 - Vowel of Second Root
- u - u class vowels
- ∅ - No Suffixative
- - hirq
- The red colored letters in the boxes indicate regular forms

Pedagogical Advantages of the Periodic Table Approach

Pedagogical Advantages of the Periodic Table Approach

Recognition

Suffixes and Prefixes



Pedagogical Advantages of the Periodic Table Approach

Recognition

Similar forms

THE PERIODIC TABLE OF HEBREW
Melak A. Tsega

Legend:

- Hitpael
- No Prefix (V)
- PF D
- Imperfect/Waw-Consecutive
- PF J
- PF N
- Suffixives
- Pronominal Suffixes

Key:

- II - Second Root letter
- DEF - Definite Article
- H - Hirsh
- i - i class vowels
- NA - Infinitive Absolute
- PRF - Perfect
- PV - Preformative Vowel
- V2 - Vowel of Second Root
- III - Third Root letter
- DF - Dagesh Forte
- INT - Interrogative Particle
- Q - Qal
- u - u class vowels
- a - a class vowels
- D - Dagesh
- G - Gimmel
- l - l class vowels
- INC - Infinitive Construct
- N - Nifal
- q - qamets hatuph
- b - b class vowels
- MP - Imperfect
- NS - Nifal Suffix
- s - s class vowels
- IMV - Imperative
- PTA - Participle Active
- P - Participle Passive
- tD - Hitpael
- OS - Objective Suffix
- PTA - Participle Active
- P - Participle Passive
- Pf - Verbal Preformative
- V1 - Vowel of First Root
- 2/3 FP
- 3CP
- PRF
- ICS
- 3FS
- 2MS
- 2FS
- 2FP
- 2MP
- 1CP
- 3MS
- 3MP
- 3FP
- 2MS
- 2FS
- 2FP
- 2MP
- 1CP

Pedagogical Advantages of the Periodic Table Approach

Reconstruction

I-

G-I

II/I

II=III

III-II

Pedagogical Advantages of the Periodic Table Approach

Retention

Student's Testimonial

John Aubrey De Villiers

Obvious Bukhos Mpofu

Enock Sambongo

Conclusion

Work-in-Progress

