

**Introduction  
to Hebrew Linguistics**  
(‘Inleiding Hebreeuwse Taalkunde’)  
UvA, Weeks 10-11

Morphology

Tamás Biró

# Morphology

- Morphology: studies the inner structure of words.  
*Well, what is a word?*
- Word: No general definition
  - Syntactic word: basic unit of a sentence.
  - Phonological word: domain of some phonological processes (e.g., stress assignment, vowel harmony).
  - Orthographic word: between two spaces.
  - Clitic: part of the phonological word, but syntactically an independent unit (e.g., articles, French preverbal pronouns, etc.).

# Example: *Kaleb*-letters

- What is the status of Hebrew prepositions ב, ל, כ?
- Orthography: single word. Not a linguistic argument.
- Syntax: preposition is an autonomous unit.  
Merges with article (*be+ha = ba*), similarly to French *du*, German *vom*.
- Phonology:
  - Take a phenomenon that depends on word beginning:  
*begat-kefat* allophony: [stop] → [fricative] / V\_\_
  - בבית: Tiberian H [bevayit], colloquial Israeli H [bebayit].
  - > TH/BH: clitic + word = single phonological word.
  - > Colloquial IH: two phonological words, and *begad-kefat* rule does not apply across word boundary.
  - [bevakaša]: lexicalized unit: diachronically complex, but synchronically in IH monomorphemic.

# Morphology

- Morphology: studies the inner structure of words.  
*Well, what is a word?* No general definition
- Morpheme: Smallest linguistic unit with meaning.  
*(Well, what is meaning?)*
  - Free morphemes: can stand alone.
  - Bound morphemes: affixes and “cranberry”-morphemes.
  - Null morpheme: no phonemic material (e.g., Sg. masc.)
  - Allomorph: alternative forms of the same morpheme.
- Morphology: studies the way morphemes are combined.
  - Morpho-phonology: sound changes during morpheme combination (e.g., *'t kofschip*, V harmony).
  - Morpho-syntax: morpheme combinations in order to enter a sentence (e.g. cases, agreement).

# Morphological processes

- Inflection: feminine, plural, construct, *binyanim*, *mishkalim*...
- Derivation:
  - Suffixes: BH *-i* ; RH: *-ut* ; IH: *-nik*, *-izaciya*
  - Prefixes: IH *xad-*, *du-*, *tlat-*, *rav-*, *bilti-*, *i-*, *xoser-* etc.
  - Denominal verbs: root extraction + piel/pual/hitpael
- Compounding:
  - Smichut: replacing compounding in Semitic  
bet (ha-)sefer, *yošev (ha-)roš*
  - Real compounds in IH: *(ha-)yoševroš*
  - Contracted compounds in IH: *ramzor*, *tapuz*
  - Acronyms: *tanax* → *tanaxi*, *duax* → *ledaveax*

*(See also slides on vocabulary enrichment)*

# Nominal morphology

# Declension (Proto-Semitic, Ugaritic, Arabic...)

		<i>Masculinum</i>		<i>Femininum</i>		
Akkadian:	<i>Sg. Nom.</i>	ilum	šarrum	iltum	šarratum	nārum
	<i>Acc.</i>	ilam	šarram	iltam	šarratam	nāram
	<i>Gen.</i>	ilim	šarrim	iltim	šarratim	nārim
	<i>Du. Nom.</i>	ilān	šarrān	iltān	šarratān	nārān
	<i>Acc-Gen.</i>	iḷin	šarrīn	iltīn	šarratīn	nārīn
	<i>Pl. Nom.</i>	ilū	šarrū	ilātum	šarrātum	nārātum
	<i>Acc-Gen.</i>	iḷī	šarrī	ilātīm	šarrātīm	nārātīm

(Old) Semitic languages have typically:

- 2 genders (masc, fem), 3 numbers (sing, dual, plural),
- 3 cases (A+G = oblique case) + mimation/nunation.

Fem. Sg. Proto-Semitic *\*-at* > BH *abs. -ā, constr. -at, or -(e)t.*

Fem. Pl. *Proto-Semitic \*-āt* > BH *-ōt.* (Canaanite sound shift)

Dual *\*-ān* > *\*-ayn* (diphthongization) > *\*-ayin* (vowel insertion to avoid diphthong) > *\*-ayim* (by analogy of the plural suffix)

# Three cases in Semitic

- Nominative: noun alone, e.g. subject.
  - Accusative: noun dependent on verb (object, location)
    - *He-locale*: remnant of Acc? Ugaritic: phenomenon apart.
  - Genitive: noun dependent on noun (possessor following possessed noun, and noun following preposition; NB: prepositions were originally nouns).
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- Additionally in Semitic language:  
*status absolutus* and *status constructus*.
- Aramaic: also *status emphaticus*.
- Arabic and Hebrew: definite article: *\*han-*, with [n]-assimilation (or *\*hal-*, with [l]-assimilation), thus gemination.



# Dual and productivity

- In Classical Arabic: dual is fully productive.
- Not in Hebrew, even not in Biblical Hebrew.
- Fossilized forms:
  - Body parts: *yadayim*, *raglayim*, *eynayim*, *tsipornayim*, *šinayim*... NB: also plural meaning!
  - Time units: *yomayim*, *šnatayim*, *šaatayim*.
  - Numbers: *štayim*, *šnayim*, *ma(a)tayim*, *alpayim*, *paamayim*.
  - *mayim*, *šamayim* (but not *xayim*).
- Semi-productivity in IH:  
*mixnasayim*, *garbayim*, *miškafayim*, *misparayim*.

# Irregular mishkalim

historically originate from regular patterns

- **Stress:** in Proto-Semitic, stress on penultimate syllable = syllable before case ending. When case endings were deleted, the stressed syllable found itself in final position. Exception:
- **Segolates** (e.g. segolate suffixes, such as feminine *-et*)
  - \* *máلكum* (Ugaritic *malku*) 'king' > \**malk* > epenthesis of unstressed vowel [e] to avoid word-final consonant cluster: *málek* (BH, in pausal position) > vowel assimilation: *mélek*. Cf. *malkē*, *malka*
  - \* *síprum* > *séper*, *siprē*; \* *qódšum* > \* *qódeš* 'holiness'
  - Gutturals prefer low vowels: \**ná<sup>c</sup>r* > *ná<sup>c</sup>ar* 'boy'
  - \* *báytum* > \**bayt* > 3 strategies: *báyit* (epenthesis), *bét* (monophthongization), *batím* (glide deletion).
- ***Bat, banot:*** \**bintum*, *binātum* > (\**bant*, *banāt* ?) > *bat*, *banōt*

# Verbal morphology

# Pronouns, verbal suffixes

		héber	arab	arámi	geez
*anāku > BH anoxi > BH, RH ani	*-ku	> -ti	-tu	-et	-kū
*antā > attā > ata	*-ta	> -ta	-ta	-t	-ka
*anti > att > at	*-ti	> -t	-ti	-ti	-ki
*huwa > hu	∅				
*hiya > hi	*-at	> -a			

*Perfect form*: in Proto-Semitic (also in Akkadian, Egyptian) originally expressed static meaning > West-Sem: perfect aspect > modern West-Semitic languages: past tense meaning.

Adjectival form + pronoun > suffix conjugation.

Null morpheme in Sg3m.

Proto-Hebrew *hiwa* > TibH *hi* ? Therefore qere perpetuum וְהָא ?

Consonant of suffix Sg. 1&2: analogy = paradigmatic leveling:

NW-Semitic and Arabic: [t],

SW-Semitic: [k] (analogy effect by Sg2 possessive suffixes?)

# Pronouns, verbal suffixes

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*antā > attā > ata	*-ta	> -ta	-ta	-t	-ka
*anti > att > at	*-ti	> -t	-ti	-ti	-ki
*huwa > hu	∅				
*hiya > hi	*-at	> -a			

Language is a system (de Saussure, 1916): one change in the system may cause a chain of further changes in the system.

Hebrew (one possible story, based on Joshua Blau):

\**anāku* > undergoes Canaanite sound shift: \**anōku* > forcing vowel dissimilation (due to preceding [o], and/or due to analogy to pronominal suffixes *-i/-ni*): \**anōki*.

This change, in turns, motivates analogical change in Sg1 verbal suffix: Proto-NW-Semitic \**-tu* > *-ti*.

This change then triggers change of Sg2 suffix \**-ti* > *-t*, to avoid ambiguity in the paradigm.

# Prefix conjugations

- West-Semitic: prefix conjugation = imperfect.
- Originally probably expressed aspect, and not tense.
- Hence, waw-consecutive.
- Three moods within prefix-conjugation: -u/-a/Ø suffix
  - Indicative: \**yaqtulu* > BH *yiqtōl*
  - lusive: \**yaqtul* > BH *yiqtōl*, also *wayyiqtōl*?
  - Conjunctive, subjunctive:  
\**yaqtula* > BH cohortative *yiqtōla*
- Theme vowel: vowel between 2<sup>nd</sup> and 3<sup>rd</sup> root consonant in Qal. The default case is: perfect [a] / imperfect [o].  
Gutturals (and a few verbs, e.g., *lamad*): [a]/[a].  
Stative verbs: [e]/[a] and [o]/[a]

# Biblical H vs Israeli H

- Differences:
  - Moods disappear. Waw-consecutive disappears.  
Commands: imperative only with frequent (and irregular) verbs.  
Other verbs: future form used, with iussive meaning (*tamšix*, *\*tamšex*).
  - CBH: 2 aspects + participle > LBH, RH: 3 tenses.
  - Paradigmatic leveling of unusual forms:
    - 2&3 fem plural of future disappear
    - *k<sup>ə</sup>tavté<sup>m</sup>* > *katávtem* (stress pattern and syllable structure become analogical to rest of paradigm)
    - Irregular forms, e.g. *havinoti* > *hevanti*.
- Israeli substandard: imperative = future – prefix (*ptax!* > *ftax!*)

# Binyanim

- Non-concatenative morphology: root + pattern (mishkal)  
Typical for Semitic (and Afroasiatic) languages.
- Nominal mishkalim
  - BH: *maCCiC, taCCiC...*
  - RH: *CaCCan...*
  - *Shem peula* for the 5 binyanim.
- Verbal paradigms: hypothetical proto-Semitic binyanim:
  - G = Grund, D = reduplicative (geminate), Š = causative
  - Gu, Du, Šu: passive of G, D, Š
  - tG, tD, Št, ŠtG: reflexive / medio-passive of G, D, Š
  - N: reciprocal or passive of G.



# Binyanim = stems

- Proto-Semitic binyanim:
  - G = Grund, D = reduplicative (geminating), Š = causative
  - Gu, Du, Šu: passive of G, D, Š
  - tG, tD, Št, ŠtG: reflexive / medio-passive of G, D, Š
  - N: reciprocal or passive of G.
- Hebrew:
  - G = Qal. N = Niphal
  - Was there Gu (Ex. 3,2: *ukkal; luqqax, etc.*)? Passive participle?
  - D = Piel, Du = Pual, tD = Hitpael
  - Š: initial [š] > Hebrew [h] > Arabic, Aramaic [?]
    - Š > Hiphil, Šu > Hophal
    - Late Akkadian > RH > IH: *šaphel* causative.

# Smaller binyanim

- Šaphel, polel, hitpolel, nitpael, etc.: are they 8th, 9th, 10<sup>th</sup> stems? Rather piel/hitpael stem with minor changes:
  - Šaphel: first root C is [š], then quadrilateral paradigm.  
RH: שעבד 'to enslave', שחרר 'to liberate'  
IH: שכתב 'to rewrite', שנטע 'to replant'  
*(Suggested reading: Nurit Dekel: 'The Šif'el Binyan in Israeli Hebrew: Fiction of Reality?' dare.uva.nl/document/164274)*
  - Polel, hitpolel: in lieu of piel/hitpael of ayin"vaw verbs.
  - Nitpael: passive/reflexive binyan in RH, synonym of hitpael (probably due to analogy: [n] = passive, [h] = causative; hence a passive must have [n], not [h]).

# Irregular verbs

(Usually similar phenomena in other Semitic languages, too.)

- Pe-nun verbs: [n]-assimilation, similarly to prefix-forms of niphal, the preposition ׀ן, the verb *latet*, etc.
- Methatesis of pe-׀/׀/ו/ז/צ
  - Additionally: assimilation in being voiced and emphatic
- Gutturals: prefer [a] to other vowels (as theme vowel), prefer chatef to shwa, and they trigger compensatory lengthening.
- Pe-yod: most of them originally pe-waw.
- Lamed-he verbs: originally lamed-yod. (ל'ה: just orthography!)
  - *\*banaytu > baniti* (A case for seeing them lamed-tav?)
- Real lamed-he verbs (with mapiq-he; not pronounced in IH):  
גבה 'to be tall', תמה 'be astonished' כמה 'to long, to yearn'.

# Periphrastic tenses, conditional

- *Haya* + participle:
  - Mishnaic Hebrew: frequency  
*rabbi X haya omer...* = 'rabbi X used to say'
  - Israeli Hebrew: conditional
    - *llu / lu* + *perfect or hayiti/haya...*+participle
    - *llule / lule / ilmale* + *perfect or hayiti/haya...*+participle
  - Also used for expressing politeness in a Standard Average European way?

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UvA, Week 12

Syntax

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# Word order: language typology

- Head + modifier or modifier + head?
- Noun + adjective (such as French)
  - Also *bayit echad*, but *shney batim*.
- Basic Word Order: SVO, SOV, VSO, VOS, OVS, OSV

## Verb + complement

- BH: VSO:  
וישכם אברהם בבוקר ויחבש [אברהם] את חמורו:
- IH: Free? SVO? V2? (such as Dutch, German)
- Departure from Basic Word Order
  - Fronting the Topic. Fronting the Focus.  
בראשית ברא א' את השמים ואת הארץ :

# תא: Differential Object Marking

- Many languages mark the object only in specific cases: Only pronouns (e.g. Dutch, English), only animate (e.g. Russian masculine and neutral nouns), only definite (Hebrew).
- Reanalysis in substandard/colloquial IH:
  - NB: A large proportion of native IH speakers: [h] > ∅
  - And therefore, especially in fast speech: phonological contraction: [et + ha] → [ta]

Not (yet?) in written language.

# Semantic roles, syntactic positions, morphological cases

- Agent of action = subject of sentence = nominative case.  
Undergoer of action = object of sent. = accusative case.
- But what about sentence expressing possession?
  - Language type 1: possessor-NOM *habeo*  
possessed-ACC
  - Language type 2: possessed-NOM EXISTS  
possessor-DAT
- Hebrew:  $\psi^i$  + possessor-DAT (ל) + possessed-NOM



# לש: Reanalysis in Mishnaic H

- Expressing possession
  - In Proto-Semitic, Classical Arabic: nomen regens (in construct state) + nomen rectum (in genitive).
  - In BH, no cases.
- Reanalysis in Rabbinic/Mishnaic Hebrew:
  - BH: ל: many uses (“meanings”), among them genitive.
  - Periphrastic construction: *ašer le...*
  - Proto-RH: *še le...* (e.g., in Bar Kokhba-letters)
  - Mishnaic Hebrew: birth of a new preposition *šel*.
  - Proof of reanalysis (beyond orthography):  
*še le + ha = še la*, but *šel + ha* does not contract.

# Expression of possession in IH

- Expressing possession in IH:

Colloquial IH:

- Real possessions: use של
- Smichut: lexicalized expressions, and in lieu of compounding. How productive?

3 ways in formal/official/written IH:

- Smichut
- של (seen as colloquialism)
- Double construction: תמונתו של מיקלאנג'לו.

*Don't confuse colloquialism with slang, jargon, fast speech!*

# Subordinate clause (bijzin)

- Complementizer (subordinating conjunction)  
CBH *ašer*, PreCBH, LBH, RH, MedH, IH: *še*, cf. Aramaic *di*.
- Reanalysis of *ha*,  
participle as adjective → verb of subordinate  
clause, reanalysis of participle to present tense:  
    *ha-yeled ha-kotev*  
    *ha-yeled ha-kotev mixtav*  
    *ha-yeled ha-kotev et ha-mixtav*  
    *yeladim, ha-kotvim mixtavim, rocim kelev*  
    *yeš yeladim ha-mesaxkim ba-derex*  
    *Eyn ha-yeladim ha-mesaxkim ba-derex rocim kelev.*

Final exam:

Monday, June 6, 11:00 sharp, in PCH 3.08