

A neglected phonetic law: The assimilation of pretonic yod to a following coronal in North-West Semitic¹

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Abstract

This paper shows the existence of a pretonic assimilation of *y to a following coronal consonant (including *y from proto-Semitic *y and *w) in North-West Semitic languages. This rule, which has been obscured by analogy in each of the North-West Semitic languages, explains three independent sets of facts: the formation of irregular maqṭal-s in Hebrew, Phoenician and Aramaic; the irregular conjugations of several verbs in Hebrew; and the plural formation of the irregular noun “house” in Hebrew and Aramaic. This proposal also solves the long-standing problem of the etymology of the verb “to give” in North-West Semitic languages (NTN in Hebrew vs. YTN in Phoenician).

Keywords: Gemination, Assimilation, Coronal consonant, Hebrew, Phoenician, Aramaic

1. Introduction

In Hebrew and other North-West Semitic languages, we observe clear traces of y (either from proto-Semitic *w- or *y) assimilating to a following consonant in a way similar to n, as previously noted by Huehnergard (2006). In the present paper, we will study all available examples of y-assimilation in Hebrew, Phoenician and Aramaic, and propose the probable phonetic conditioning and time frame of this phonetic rule, which is no longer productive in any attested language.

We will start this investigation by looking at several maqṭal nouns from I-y roots which demonstrate this assimilation.

Second, we will study a series of I-y Hebrew verbs which not only have y-assimilation in derived nouns, but also in some imperfective forms. We will show that the Hebrew verbal root $\sqrt{\text{NTN}}$ “to give” is an innovation, and originally going back to a form $\sqrt{\text{YTN}}$ still attested in Phoenician: it was renewed on the basis the paradigms of I-n verbal roots. Finally, we will provide examples

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showing that the same y-assimilation took place in Aramaic with the verbs “to know” $\sqrt{Y D\dot{\iota}} < * \sqrt{w d\dot{\iota}}$, “to sit” $\sqrt{Y T B} < * \sqrt{w \theta b}$ and “to blossom” $\sqrt{Y \dot{\iota} \dot{\iota}} < * \sqrt{w \dot{\iota} \dot{\iota}}$.²

Third, we will show that the y-assimilation rule can be used to explain the irregular plural of *bayit* “house” in Hebrew and Aramaic. This example will also provide critical evidence to assess the exact conditioning factors for the hypothesized sound change.

2. y-assimilation in maqtal deverbal nouns

Maqtal deverbal nouns of I-y roots are normally formed according to the following pattern: $\sqrt{y C_2 C_3} > m\hat{o} C_2 \bar{a} C_3$. For instance, the root $\sqrt{Y \dot{S} B} < * \sqrt{w \theta b}$ “to sit” yields the regular maqtal *mōšāb* “seat, above”.

This noun formation reflects the proto-Semitic *w initial before it changed to y- in Hebrew. The original form of this maqtal was *ma-wθab(u). The *ma-prefix prevented initial *w from becoming y- as in perfect forms such as *yāšab* < *waθaba “he sat down”, and *aw monophthongized into long ô in Hebrew, hence *ma-wθab > *mawšab > *mōšab > *mōšāb*.

Nevertheless, a few maqtal nouns from I-y verbal roots do not have this expected $m\hat{o} C_2 \bar{a} C_3$ configuration, in particular *maddāf* “knowledge” from $\sqrt{Y D \dot{\iota}}$ “to know” and *massād* “foundation” from $\sqrt{Y S D}$ “to establish”. Several other examples will be treated in the following section, but these two are non-controversial, as the corresponding verb roots have no traces of assimilation.

Alongside these irregular deverbal nouns, the regular maqtal-s of these I-y roots are also attested: *mōsād* “foundation” and *mōdāf* “parent”. While *maddāf* is a relatively common noun, *massād* is considerably rarer than its regular equivalent *mōsād*.

- (1) \hat{u} -mim-massad $\dot{\iota}$ ad- $\dot{\iota}$ at- $\dot{\iota}$ epāhōt
 “even from the foundation unto the coping” (I Kings 7:9)

The only way to explain these forms is to assume a phonetic change $*may C_2 a C_3 > *ma C_2 C_2 a C_3$ identical to the one present in I-n roots $*man C_2 a C_3 > *ma C_2 C_2 a C_3$. Alternatively, the change could have been $*maw C_2 a C_3 > *ma C_2 C_2 a C_3$, with the assimilation of w as proposed by Huehnergard (2006), but we will show in section 4 that some data cannot be accounted for by that hypothesis.

3. y-assimilation in Hebrew and Aramaic verbal conjugation

Evidence for this y-assimilation rule is not limited to a few maqtal-s. Clear traces are also found in the conjugation of six I-y_ṣ verbs and one I-yS₂verb: $\sqrt{Y \dot{S} B}$ “to

2 We represent the reconstruction of proto-Semitic consonants in IPA reconstruction: the consonant corresponding to Arabic *d* is reconstructed as an ejective lateral alveolar fricative *ɬ', that corresponding to Arabic *ḏ* as an ejective interdental fricative *θ' and that corresponding to Hebrew *š* as a lateral alveolar fricative *ɬ.

take one's stand", $\sqrt{Y\dot{S}G}$ "to set", $\sqrt{Y\dot{S}\dot{T}}$ "to lay, spread", $\sqrt{Y\dot{S}Q}$ "to pour", $\sqrt{Y\dot{S}R}$ "to knead", $\sqrt{Y\dot{S}T}$ "to lighten" and $\sqrt{Y\dot{S}R}$ "to chastise". The most common I-yš verb, however, $\sqrt{Y\dot{S}T}$ "to go out, to depart", shows no such assimilation in Hebrew. Jöüon and Muraoka (2006: 185) posit alternating I-n roots to account for these assimilations. However, comparative evidence does not support this hypothesis.

In this section, we will present attested forms of each of these seven verbs to illustrate y-assimilation. These verbs will be divided into three groups: first, $\sqrt{Y\dot{S}T}$ and $\sqrt{Y\dot{S}G}$, which have no external cognates; second, $\sqrt{Y\dot{S}Q}$ and $\sqrt{Y\dot{S}R}$, which have cognates among North-West Semitic languages; third, $\sqrt{Y\dot{S}\dot{T}}$, $\sqrt{Y\dot{S}\dot{R}}$ and $\sqrt{Y\dot{S}\dot{B}}$, which have cognates outside North-West Semitic, and whose initial I-y comes from proto-Semitic *w-. These data are well known from Hebrew grammars, but it is nevertheless important to set out the facts clearly, as we will see concerning the root $\sqrt{Y\dot{S}\dot{B}}$.

Finally, we will show that the Hebrew root \sqrt{NTN} belongs in fact to the group of verbs presented in this section: it comes from an earlier $*\sqrt{ytn}$, a form still attested in Phoenician.

3.1. $Y\dot{S}T$ and $Y\dot{S}G$

The roots $\sqrt{Y\dot{S}T}$ and $\sqrt{Y\dot{S}G}$ have no known cognate outside of Hebrew, so we have no way of knowing whether their initial I-y comes from proto-Semitic *y or *w.

$\sqrt{Y\dot{S}T}$ "to lighten, to burn, to catch fire" is attested in three forms: qal (for instance the 3sg. fem. waw-impf. *wattiššat*), nip̄ʕal (3pl. masc. perf. *niššəṭū*) and hip̄ʕil (2pl. masc. impf. *taššəṭū*). The expected forms of a regular I-y verb, such as hip̄ʕil, *hōšītor *hēšīt, are not attested.

$\sqrt{Y\dot{S}G}$ "to set" has hip̄ʕil (3pl. masc. waw-impf. *wayyaššəgū*) and hop̄ʕal (3sg; masc. impf. *yuššəg*) forms. The regular forms *hōšīg/*hēšig are not attested.

- (2) wayyiqəḥū pəlišṭīm ʔeṭ ʔārôn hāʔəlōhīm wayyābīʔū ʔōṭō bēyṭ
Dāgôn wayyaššəgū ʔōṭō ʔēšəl Dāgôn
"When the Philistines took the ark of God, they brought it into the
house of Dagon, and set it by Dagon." (I Samuel 5:2)

3.2. $Y\dot{S}Q$ and $Y\dot{S}R$

The roots $\sqrt{Y\dot{S}Q}$ and $\sqrt{Y\dot{S}R}$ are attested in other North-West Semitic languages (Phoenician and Ugaritic), but since these languages share the innovation *w- > *y-, we have no way of knowing whether these roots were *w-initial or *y-initial in the proto-language.

$\sqrt{Y\dot{S}Q}$ "to pour" has a Ugaritic cognate <YŠQ>. This root is attested in qal, hip̄ʕil and hop̄ʕal, but unlike the previous roots, it has both y-assimilating and regular forms. In the qal, we have both the imperfective form *ʔeššōq* with assimilation (see example 3) and the regular waw-imperfective *wayyīseq* without assimilation (example 4).

- (3) $\text{?eṣṣōq rūḥî ʕal zarʕekā}$
 “I will pour my spirit upon thy seed and my blessing upon thine offspring.” (Isaiah 44:3)
- (4) $\text{wayyīṣeq dam = hammakkāh ?el ḥēyq hārākēb}$
 “And the blood ran out of the wound into the midst of the chariot.”
 (I Kings 22:35)

In the *hipʕil*, we find the waw-imperfective *wayyaṣṣīqu* with assimilation of *yôd*, but the infinitive *môṣāqet* (II Kings 4:5) shows no assimilation. Finally, in the *hopʕal*, only regular forms are found: perfective *hūṣaq*, imperfective *yūṣaq*.

$\sqrt{\text{Y}SR}$ “to chastise” has a cognate D-stem form in Ugaritic <YWSRNN>, with geminated initial I-w (Huehnergard 2006: 459, n. 9). In Hebrew, it shows gemination in some *qal* forms such as *?essōrēm* “I will chastise them” (Hosea 10:10). It is the only II-s verb to do so.

3.3. $\sqrt{\text{Y}ṢṢ}$, $\sqrt{\text{Y}ṢB}$ and $\sqrt{\text{Y}ṢR}$

The roots $\sqrt{\text{Y}ṢṢ}$ “to spread” and $\sqrt{\text{Y}ṢB}$ “to take one’s stand” both have Arabic cognates, respectively *waḍafa* “he laid down” and *waṣaba* “he was firm”, from proto-Semitic $\sqrt{\text{w}ʕʕ}$ and $\sqrt{\text{w}ʕb}$. In these two roots, the assimilating *yôd* comes from an older *w (Huehnergard 2006: 460). As for $\sqrt{\text{Y}ṢR}$ “to form”, comparative evidence is ambiguous.

$\sqrt{\text{Y}ṢṢ}$ “to spread” is only attested in *hipʕil* (3sg. masc. impf. *yaṣṣīʕ*) and in *hopʕal* (3sg. masc. impf. *yuṣṣaf*). Only forms with y-assimilation are found. This root has a *maqtal* deverbal noun *maṣṣāʕ* “couch, bed”, which belongs to the same category as the two examples presented in example 2.

$\sqrt{\text{Y}ṢB}$ “to station oneself, take one’s stand”³ is attested only in the *hiṭpaʕēl* (3sg. masc. impf. *yīyaṣṣēb*). There is no evidence of y-assimilation in the verbal conjugation of this verb, since I-C is always prevocalic in the paradigm of the *hiṭpaʕēl*. However, this verb has a derived *maqtal* *maṣṣāb* “place, military post”, whose exact meaning can be illustrated by the following example:⁴

- (5) $\text{wa-yyiggālū ṣānēyhem ?el maṣṣāb pēlišṭīm}$
 “And both of them (Jonathan and his armour-bearer) appeared to [the men] of the garrison of the Philistines” (I Samuel 14:11)

$\sqrt{\text{Y}ṢR}$ “knead, make (as a potter)” has cognates in Ugaritic and Phoenician: the *qāṭil* of the root (written <YṢR>) is attested in the sense of “potter” in these two languages. The corresponding Akkadian cognate *eṣērum* would suggest a

3 Hebrew $\sqrt{\text{Y}ṢB}$ is not to be compared with the root $\sqrt{\text{N}ṢB}$ “to erect” (reflected by Arabic *naṣaba*, *yaṣubu* “he set up, he erected”), whence Ugaritic $\sqrt{\text{N}ṢB}$ “to erect” (<SKN> “a stele”), Hebrew *nīṣʕal* 3sg. masc. perf. *niṣṣab* <*na-NṢÁB-a) and *maṣṣēbāh* “stele” (= phoen. <MṢBT>, neo-Pun. <MNSBT>), pointing to *ma-NṢiB-atu- (Krahmalkov 2001: 128).

4 In the sentence following this passage (I Samuel 14:12) *?anāṣēy ham-maṣṣābā* “the men of the garrison”, the word *maṣṣāb* is likely to have been a glotta, being mistaken for a proper name in the Septuaginta, which renders *?anāṣēy ham-maṣṣābā* by οἱ ἄνδρες Μεσσαβ “the men of Messab” (the Vulgate correctly reads *uirī dē statiōne* “the men of the garrison”).

I-y root, but other languages such as Eblaite reflect I-w (Huehnergard 2006: 459, n. 8).

This root has mainly forms without assimilation, such as nipʿal *nōšar* and hopʿal *yūšar* and qal waw-imperfective 3sg. masc. *wayyīšer*.

Forms showing y-assimilation are only found in the qal imperfective with suffixed pronouns, such as *ʔeššārəkā*:

- 6 bə-terem ʔeššārəkā (ʔŠWRK) ḥabbēten yədaʿtīkā
 “Before I formed thee in the belly I knew thee.” (Jeremiah 1:5)

In example 6, the <W> in the spelling <ʔŠWRK> (for expected <ʔŠR-K>) probably transcribes the stem vowel, suggesting perhaps an alternative pronunciation */ʔeššōrəkā/.

The data from these seven verbs are summarized in Table 1. Verb forms without assimilations are indicated between brackets.

Most forms without assimilation are analogical, as were maqʿal-s of the form mōC₂āC₃ discussed in the previous section. However, we will show in section 4 that the waw-imperfective *wayyīšer* and *wayyīšeq* are most probably inherited forms, and that the absence of assimilation here is due to a constraint on the application of the rule.

3.4. NTN “to give”

Hebrew $\sqrt{\text{NTN}}$ seems at first glance to be entirely distinct from the seven verbs presented in this section. However, strong evidence suggests that this verb was y-assimilating at some stage of proto-Hebrew.

The corresponding Phoenician cognate is $\sqrt{\text{YTN}}$. If we suppose that Phoenician preserved the proto-Cananean form while Hebrew innovated, it becomes possible to account for this irregular correspondence I-y::I-n. Attested Phoenician forms of the verb $\sqrt{\text{YTN}}$ are summarized in Table 2.⁵

Table 1. y-assimilating verbs in Hebrew

Root	Meaning	qal	nipʿal	hipʿil	hopʿal	yitpaʿel
$\sqrt{\text{YŠG}}$	to set			wayyaššīgū	yuššāg	
$\sqrt{\text{YŠR}}$	to knead	(wayyīšer) ʔeššārəkā	(nōšar)		(yūšar)	
$\sqrt{\text{YŠT}}$	to lighten	wattiššat	niššətū	taššītū		
$\sqrt{\text{YŠʿ}}$	to lay			yaššīʿ	yuššaʿ	
$\sqrt{\text{YŠB}}$	to station					(yityaššēb)
$\sqrt{\text{YŠQ}}$	to pour	(wayyīšeq) ʔeššōq		wayyaššīqū	(yūšaq)	
$\sqrt{\text{YŠR}}$	to chastise	ʔessōrēm		(ʔayəsīrēm)		

5 The abbreviations CIL and CIS respectively stand for *Corpus Inscriptionum Latinarum* and *Corpus Inscriptionum Semitarum* (Pars prima Inscriptiones Phoenicias continens).

Table 2. Nominal forms of the verb “to give” in Phoenician and Hebrew

Class	Testimonia	Phoen. restitution	Can. etymon	Heb. parallel
Maqṭal	ma-ta-an-ba-ʕ-al ^a Neo-Pun. m‘t‘b‘l	*mattōn “gift” CS *mattan-baʕal	*ma-WTáN-u- “gift”	PN <i>mattān</i> ^b <i>mattan-yāhū</i> ^c
Miṭqal ^d	Mitun, ^e Metun ^f Metunilim ^g	*mittōn “gift” Juxt. *mittōn + ilīm	*mi-WTáN-u- “gift”	∅
Maqṭil	Ματτήν, ^h ma-ti-nu-ba-ʕ-li ⁱ	*mattēn “gift” Juxt. *mattinu + baʕli	*ma-WTīN-u- “gift”	∅
Miṭqil	mi-e-te-en-na ^j Μεττηνος ^k	*mittēn “gift”	*mi-WTīN-u- “gift”	∅
Muṭqal	Μυττωνος, ^l Μοττωνος ^m MUT(H)UN ⁿ *Μιλκιαθων	*muttōn “given” *Milk(u) yatōn “the god Milk has given”	*mu-WTáN-u- “given” *X YáTaN-a (Proto-Phoen. *YaTáN)	∅ PN <i>yō-nātān</i> “YHWH has given” <i>nəʕtan-ʔēl</i> ^p <i>nəʕtan-yāhū</i> ^q <i>nəʕtan-meleḵ</i> ^r
Deus dedit	mi-li-ki-ya-to-no-se) ^o	∅	*YaTaN-a X	
dedit Deus	∅	∅		

^aAnnals of Assarhaddon 5⁶⁰(Reign: 680–669 BC). Data apud Friedrich (1951: 89).^bName of a priest of Baal (II Kings 11:18).^cLevite name (I Chronicles 25:4). Compare with *Nəʕtanyāhū* “YHWH has given”), another Levite name (II Chronicles 17:8). Note also the shortened by-forms *Mattanyāh* “gift of YHWH” (II King 24:17) and *Nəʕtanyāh* (II Kings 25:23).^dAs pointed out by an anonymous reviewer, we do not find any gemination in the Latin transcriptions of miṭqal; this fact is unexplained.^eCIL 8, 27527.^fCIL 8, 20492.^gCIL 8, 12322. Properly “given by the gods”.^hHerodotus, VII, 9. Personal name of a Tyrian leading a ship among the Persian fleet (Τύριος Ματτήν Ειρώμου “Mattēn the Tyrian, son of ʔahīrōm”). Note the accent on the final syllable.ⁱAnnals of Salmanazar 2:93 (Reign: 727–722 BC). Compare with the seventh-century PN *Mattanbaʕl.^jAnnals of Tiglath-pileser III 67:66 (he conquered Phoenicia from 743 to 738).^kFlavius Josephus, C, 124. King of Tyre, son of Βαλεζωρος (*Baʕl ‘azōr “Baal helped me”). His reign was from 850 to 821 BC. In the ninth century, his name was perhaps still something like *Mittīnu rather than *Mittēn.^lJudge (i.e. suffet) of Tyre (Jos., Ap. 1, 157).^mDittenberger 1915: 585, 86.ⁿCIL 8, 8714. Compare Mutto (Just. 184). Note also the Punic PN MUT(H)UNBAL (CIL 8. 68, 16726) and MUTHUNILIM “god(s)-given” (CIL 8, 23904), reflected by the Latin PN *Ādeōdatus* (son of St. Augustine, who died at 19). Segert (1976: 85) explains this form as a maṭqāl *ma-WTūN-u-^oCIS 1, 10.2. See also Friedrich (1951: 66a, 78c, 132b and 193b).^pFrom Proto-Hebr. *natana-ʔil(u) “the (bull-)god ‘ilu has given”.^qFrom Proto-Hebr. *natana-YHWH “YHWH has given”.^rMaybe reflecting *proto-Hebr. *natana-Milk(u) “the god Milku has given”, with a Massoretic trivialization of the second part of the compound, no longer understood as a theophoric PN.

In Hebrew, the form \sqrt{YTN} is reflected in one personal name *Yatnīʔēl* (1 Chronicles 26:2) and the place name *Yitnān* (Joshua 15:23). These names either represent preservation from an earlier stage of Hebrew or borrowing from a Cananean language preserving the older root.

Outside of Hebrew and Phoenician, this root is also attested in Ugaritic as \sqrt{YTN} , a fact that confirms the antiquity of I-y in this root. The spelling <YTT> for the first person singular perfective can only be interpreted as *yatattu according to Bordreuil and Pardee (2004: I:69), a form deriving from earlier *yatan-tu.

An alternative hypothesis is mentioned by Huehnergard (2006: 469-1, fn. 57), according to which Ugaritic and Phoenician innovated the y-initial form. In this theory, imperative *tēn* < *tin served as the pivot form: for both I-y and I-n, the first radical disappears in the imperative (*gaš* from $\sqrt{NGŠ}$ “to get closer” vs. *šēb* from $\sqrt{YŠB}$ “to sit down”). This hypothesis, however, would imply that the innovation occurred independently in Ugaritic and Phoenician, and is at odds with the fact that traces of the form \sqrt{YTN} can be found in Hebrew. The Akkadian form *nadānum*, though probably cognate to Hebrew \sqrt{YTN} , presents an unexplainable second radical II-d which cannot in any way correspond to Hebrew and Phoenician II-t. Besides, Assyrian *tadānum* (Huehnergard 1997: 603) has no initial n-. It seems that this root underwent major refection in Akkadian dialects: analogical change from I-w to I-t is well attested in Akkadian (Huehnergard 2006: 464). The Akkadian form cannot be used as proof that the I-n in Hebrew is original. We suggest a reconstruction * \sqrt{wtn} for this root in proto-Semitic: it would account for all the data except the II-d in Akkadian.

Finally, since assimilation of the first radical consonant in I-y verbs is much rarer than in I-n verbs, where it is fully regular, analogy can only have taken place from I-y to I-n, not the other way round.

3.5. y-assimilation in Aramaic verbal conjugation

The assimilation of y- before coronals is not a phenomenon limited to Hebrew; other North-West Semitic languages show traces of it. Unfortunately, for Phoenician and Ugaritic, the absence of vocalization and gemination in the writing system make it impossible to determine with confidence whether or not such a phonetic change took place. However, in the case of Biblical Aramaic and Syriac, we are fortunate to have fully adequate writing systems.

In Aramaic, three verbs show traces of y-assimilation: \sqrt{YDf} “to know”, \sqrt{YTB} “to sit” (< * $\sqrt{w\theta b}$) and $\sqrt{Yfʔ}$ “to bloom” (< * $\sqrt{wʔʔ}$). The conjugation of the first two verbs is well documented in all grammars of Biblical Aramaic (see for instance Rosenthal 1988: 73).⁶ \sqrt{YTB} has the imperfective form *yittib*, which presents a clear case of y-assimilation:

(7) *yittib* < *yaθθib < *yayθib < *yawθib-u

6 The verb “to be able” \sqrt{YKL} is often cited with these two verbs, as gemination is found in the imperfective *yikkul*. However, gemination in this verb has a different origin, see Huehnergard (2006: 471).

The case of $\sqrt{YD}\text{f}$ “to know” is slightly more complex, since its imperfective (3sg. fem.) is *tindaḥ*, instead of expected *tiddaḥ if y-assimilation had occurred. We propose here that the geminated *d was dissimilated to a cluster *nd, a phonetic rule that has left many other traces in Aramaic (Davidson 1848: 83):

(8) **tindaḥ* < **tandaḥ* < **taddaḥ* < **taydaḥ*

The root $\sqrt{Y}\text{f}$ “to bloom” presents an even more complex evolution. Targum Aramaic <YNfY> *yinfēḥ* is the imperfective 3sg. masc. of the verb *yəḥaḥ* meaning “to bloom”. It is found in the Onkelos Targum, where it glosses Hebrew $\sqrt{PR}\text{H}$ “to grow sprouts” or $\sqrt{S}\text{W}\text{S}$ “bloom” (Jastrow 1903: 583). The perfective form *yəḥaḥ* goes back to a Common-Semitic protoform **waḥ’aḥ*-a “he went out” (Ge’ez *wadaḥa*, Hebrew *yāṣāḥ*). The meaning “to grow sprouts” is found in Akkadian (w)āṣûm (<**waḥ’āḥ*-u-) “to go out, to grow, to bloom”.

The imperfective form <YNfY> *yinfēḥ* is extremely irregular; dictionaries set a distinct root $\sqrt{N}\text{f}$ alternating with $\sqrt{Y}\text{f}$. We propose a different solution, which involves y-assimilation like the two previous verbs: **yawḥ’iḥ*-u > **yaf’iḥ* > **yaḥ’iḥ*

(9) **yaḥ’iḥ* < **yaf’iḥ* < **yawḥ’iḥ*-u

Assimilation took place before the regular Aramaic change *ḥ’ > ḥ, when the place of articulation of this consonant was still coronal. After this assimilation, a dissimilation occurred, exactly as with $\sqrt{YD}\text{f}$ “to know”.

(10) **yandiḥ* < **yaddiḥ* < **yaḥ’iḥ*

This dissimilation took place at an intermediate stage of change, when the consonant coming from proto-Semitic *ḥ’ was still a coronal, but had become voiced: *ḥ’ changed to ḥ through a voiced pharyngealized stop transcribed here as *ḍ (its exact pronunciation is difficult to ascertain). Then, the regular vowel changes applied, yielding the attested form *yinfēḥ* < **yandiḥ*.

3.6. Concluding remarks

The Hebrew, Phoenician and Aramaic data reviewed in this section have shown that the cases of gemination in various verbal forms of I-y verbs is better explained as being due to assimilation of y- to the following consonant following the rule **VyCV* > **VCCV*. These data cannot decide whether assimilation took place before or after the change **w-* > **y-*, so that they would be compatible with Huehnergard’s hypothesis that **VwCV* > **VCCV* (where C stands for a dental consonant).

In cases where cognate I-n and I-y roots are attested (such as Hebrew \sqrt{NTN} , Phoenician \sqrt{YTN}), the I-n form must be the analogical one, as gemination resulting from assimilation is regular in I-n verbs, whereas it is only residual in I-y verbs.

4. Bayit

The noun for “house” in Semitic (Hebrew *báyit*, Arabic *bayt*ⁿ, etc.) is notorious for its irregular paradigm, which has never been satisfactorily explained.

However, we will show that the rule of assimilation illustrated by verbal alternations in the previous sections can account for the Hebrew and Aramaic data.

In Hebrew, the plural of *báyit* shows unexplained gemination *bāttīm* (Joüon and Muraoka 2006: 294). The same gemination is found in Aramaic dialects. In Biblical Aramaic, the attested plural is *battê-kôn* < *battáy-kum (Daniel 25), and in Syriac, the singular and plural forms of this noun are *bayt-ā* and *battē* respectively.

The singular form goes back to *báytu in proto-North West Semitic, hence Hebrew *báyit* in pausa with vowel fracture, but status constructus *bēt=*, 1sg possessive *bēt-î* from proto-Semitic *báyti-ya with monophthongization (–i– being the Genitive case suffix, and –ya the 1sg possessive suffix).

The plural must be reconstructed as *batt-ū-ma in the nominative and as *batt-ī-ma in the oblique cases, with status constructus *battáy= (Hebrew *bāttē-kem*, Biblical Aramaic *battē-kôn* “your^p houses”).

Joüon and Muraoka (2006: 294, fn. 4) suggest that Aramaic *batt-* is due to the intervocalic syncope of –y–: Common Semitic *bayat- > proto- Cananean *bahat- > proto-Aramaic **baht- with compensatory gemination, but this ad hoc theory requires one to suppose a special phonetic rule which applied only to this word. Besides, it would not account in any way for the Hebrew form, and it is highly unlikely that Hebrew *bāttīm* could be a borrowing from Aramaic.

The rule of assimilation presented in the previous section offers a simpler explanation: the geminate in the plural of this noun is due to the assimilation of *y to the following consonant:

- (11) *bayt-áy- > *batt-áy- (status constructus plural, Hebrew *battē-*)
 *bayt-īm a > *batt-īm a (status absolutus plural, Hebrew *bāttīm*).

This noun, however, allows us further to refine the conditioning of the y assimilation rule, as no gemination is found in the singular:

- (12) *báyti- (status constructus singular, Hebrew *bēt-*)
 *báytu (status absolutus singular, Hebrew *báyit*).

The main difference between examples 11 and 12 is that in the former, the stressed syllable follows the postulated *-yt- cluster, while in the latter, the stressed syllable precedes it. This shows that y-assimilation only occurs in pretonic position (*-VyTŪ- > *-VTTV-).

No other CayC- noun shows the same alternation in any North-West Semitic language; however, this is probably due to the fact that less common nouns underwent analogy and the original geminated plural was replaced by a plural following a more regular pattern. As pointed out by an anonymous reviewer, the expected regular plural of *báyit* should be a broken plural *bayatīm > *bəyātīm.⁷ This is actually the form attested in Ugaritic.⁸

7 Plurals built on the binyan QaTaL are very widespread in North-West Semitic, as in Hebrew *melek* < *mālk-u- “king” vs. *mālākīm* < *malak-īm “kings”.

8 In Ugaritic, the singular BT *bētu comes from the same proto-form *báyti- as Hebrew *báyit*, but the plural BHT-M “the houses” is not directly comparable to *bāttīm*. In BHT-M “the houses”, the spelling –H– probably represents a hiatus. Sivan (2001: 34–5) cites an alternative spelling BWT-M, and it is most likely that both BHT-M

This pattern is found with some other CayC nouns, such as *ḥáyil*, plural *ḥáyālīm* “strength, army”. However, we also find simple plurals of the type *CayC-īm, such as *zayt* “olive”, plural *zēyītīm* < *zaytīm “olive trees” (as in the place name *har hazzēyītīm* “Mount of Olives”).

The irregular plural of *báyit* constitutes important evidence for the rule of y-assimilation: it proves that this rule cannot have taken place before the change *w > *y, otherwise *báyit* would not have undergone assimilation, since the –y– in this noun goes back to proto-Semitic. Besides, it proves that the assimilation rule was conditioned by supra-segmental factors.

With this rule in mind, we are now in a position to explain the forms *wayyīser* from $\sqrt{Y\dot{S}R}$ “to make” and *wayyīseq* from $\sqrt{Y\dot{S}Q}$ “to pour” in section 3.2. that show no assimilation of y–. The expected forms if y-assimilation had occurred in all VyCV contexts would have been *wayyīšser and *wayyīšseq on the model of I-n roots.

In these two waw-imperfectives, the stress falls on the personal prefix:

- (13) *wayyīšser* < *wa-yá-yšir
wayyīšseq < *wa-yá-yšiq

The absence of gemination here is expected given the accentual conditioning of y-assimilation: since the stressed syllable precedes the *–yC– cluster, no assimilation takes place here as in example 12 above.

By contrast, imperfective forms without waw have the stress on the radical, and undergo assimilation:

- (1) (14) *ʔeššōq* < *ʔa-yšúq

The rule of y-assimilation can therefore not only explain various irregular paradigms, but also sheds some light on the reconstruction of the proto-North-West Semitic accentual system.

5. Conclusion

This article has shown the existence of a rule involving the assimilation of y– to a following consonant in North-West Semitic and set out its precise phonetic conditioning. Its clearest traces are found in verbal flexional and derivational morphology, but evidence is also found in the peculiar flexion of the irregular noun “house”.

The data presented here show that *y (either from proto-Semitic *w or *y) assimilates in pretonic position to a following coronal consonant, including proto-Semitic *t, *θ, *s, *d as well as the emphatic (or ejective) *sʕ, *tʕ, *θʕ. No traces of assimilation with other coronals such as *z, *n, *ð, *ʔ, *ʃ, *l and *tʕ have been found, but this may reflect a gap in our data rather than an original constraint on this phonetic rule, given the limited number of examples

and BWT-M stand for a plural form *ba.at-ūma. This form would reflect an innovative broken plural *ba(y)atu “houses”. This broken plural, which originally probably had a collective meaning “a group of houses” or maybe “the rooms (of the house)”, would have superseded the original geminated plural *batt-ūma.

which have resisted analogy. Among the verbs preserving the y-assimilation rule, the significant proportion of roots with Š as a second root consonant in Hebrew probably reflects the fact that this consonant results from the merger of three proto-Semitic consonants: *s', *ʃ' and *θ'.

The effect of this rule has been largely levelled by analogy in most North-West Semitic languages, and traces can only be detected in old derivations or irregular paradigms.

Huehnergard (2006) has already proposed explaining the maqṭal formations and some of the irregular verbs discussed in this paper by the assimilation of the first radical consonant. However, he argues for a much earlier time frame than we do: according to him, it goes back to proto-Semitic, and the assimilation of w- to a following t- in Akkadian and Arabic (Brockelmann 1908–13: I:177) would be traces of this rule. In our hypothesis, the y-assimilation rule postdates the change *w > *y, and assimilation of *w to *t in proto-Semitic is an unrelated phenomenon.

The hypothesis laid out in the present article has two advantages over Huehnergard's. First, in Arabic and Akkadian, assimilation only occurs before t, whereas in North-West Semitic, as we have seen, it occurs with most coronal consonants; Huehnergard argues that assimilation of w- to all dental consonants (not just to t-) is of proto-Semitic date, but it seems highly unlikely that no trace of this rule on dental consonants other than t- would have been preserved in Arabic and Akkadian.

Second, Huehnergard's hypothesis cannot account for the plural form of *báyit*, which would have to be analysed as an entirely unrelated fact.

References

- Bordreuil, Pierre and Dennis Pardee. 2004. *Manuel d'ougaritique*. Paris: Geuthner.
- Brockelmann, Carl. 1908–13. *Grundriss der vergleichenden Grammatik der semitischen Sprachen*. Berlin: Reuther und Reichard.
- Davidson, Benjamin. 1848. *The Analytical Hebrew and Chaldee Lexicon*. Grand Rapids, Michigan: Zondervan.
- Dittenberger, Wilhem. 1915. *Sylloge Inscriptionum Graecarum*. Leipzig: Hirzel.
- Friedrich, Johannes. 1951. *Phönizisch-punische Grammatik*. Rome: Pontificum Institutum Biblicum.
- Huehnergard, John. 1997. *A Grammar of Akkadian*. Atlanta: Scholars Press.
- Huehnergard, John. 2006. "Hebrew verbs i-w/y and a proto-Semitic sound rule", in L. Kogan, N. Koslova, N. Loesov and S. Tishchenko (eds.), *Memoriae Igor M. Diakonoff*. Winona Lake, IN: Eisenbrauns. Babel und Bibel 2; Orientalia et Classica, Papers of the Institute of Oriental and Classical Studies 8; Russian State University of the Humanities, pp. 459–74.
- Jastrow, Marcus. 1903. *A Dictionary of the Targumim, of the Talmud Babli and Yerushalmi, and the Midrashic Literature*. London: Luzac.
- Jouön, Paul and Takamitsu Muraoka. 2006. *A Grammar of Biblical Hebrew*. Rome: Editrice Pontificio Istituto Biblico.
- Krahmalkov, Charles R. 2001. *A Phoenician-Punic Grammar*. Leiden: Brill.
- Rosenthal, Franz. 1988. *Grammaire d'araméen biblique*. Paris: Beauchesne.
- Segert, Stanislav. 1976. *A Grammar of Phoenician and Punic*. Munich: Beck.
- Sivan, Daniel. 2001. *A Grammar of the Ugaritic Language*. Leiden: Brill.