A neglected phonetic law: The assimilation of pretonic yod to a following coronal in North-West Semitic[1]

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Abstract

This paper shows the existence of a pretonic assimilation of *y to a follow-ing 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 inde-pendent sets of facts: the formation of irregular maqtal-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 maqtal 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 orig-inally 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" $\sqrt{Y\ D\Upsilon} < {}^*\sqrt{wd\Upsilon}$, "to sit" $\sqrt{YTB} < {}^*\sqrt{w\theta b}$ and "to blossom" $\sqrt{Y\Upsilon?} < {}^*\sqrt{w\ell'\Upsilon}$.[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: $\sqrt{yC_2C_3} > \text{mô}C_2\text{ā}C_3$. For instance, the root $\sqrt{Y\check{S}B} < {}^*\sqrt{w\theta b}$ "to sit" yields the regular maqtal *môšāḇ* "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 > *môšāḇ*.

Nevertheless, a few maqtal nouns from I-y verbal roots do not have this expected $\text{mô}C_2\text{ā}C_3$ configuration, in particular *maddāʕ* "knowledge" from $\sqrt{YD\Upsilon}$ "to know" and *massāḏ* "foundation" from $\sqrt{YSD}$ "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: *môsāḏ* "foundation" and *môḏāʕ* "parent". While *maddāʕ* is a relatively common noun, *massāḏ* is considerably rarer than its regular equivalent *môsāḏ*.

(1)   û-mim-massaḏ ʕaḏ-haṭ-ṭəp̄āḥōṯ
      "even from the foundation unto the coping" (I Kings 7:9)

The only way to explain these forms is to assume a phonetic change $^*\text{may}C_2aC_3 > {}^*\text{ma}C_2C_2aC_3$ identical to the one present in I-n roots $^*\text{man}C_2aC_3 > {}^*\text{ma}C_2C_2aC_3$. Alternatively, the change could have been $^*\text{maw}C_2aC_3 > {}^*\text{ma}C_2C_2aC_3$, 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-yṣ verbs and one I-yS$_2$verb: $\sqrt{Y\dot{S}B}$ "to

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

take one's stand", $\sqrt{\text{YṢG}}$ "to set", $\sqrt{\text{YṢʕ}}$ "to lay, spread", $\sqrt{\text{YṢQ}}$ "to pour", $\sqrt{\text{YṢR}}$ "to knead", $\sqrt{\text{YṢT}}$ "to lighten" and $\sqrt{\text{YṢR}}$ "to chastise". The most common I-yṣ verb, however, $\sqrt{\text{YṢʔ}}$ "to go out, to depart", shows no such assimilation in Hebrew. Joüon 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, $\sqrt{\text{YṢT}}$ and $\sqrt{\text{YṢG}}$, which have no external cognates; second, $\sqrt{\text{YṢQ}}$ and and $\sqrt{\text{YSR}}$, which have cognates among North-West Semitic languages; third, $\sqrt{\text{YṢʕ}}$, $\sqrt{\text{YṢR}}$ and $\sqrt{\text{YṢB}}$, 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 $\sqrt{\text{YṢB}}$.

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

3.1. YṢT and YṢG

The roots $\sqrt{\text{YṢT}}$ and $\sqrt{\text{YṢG}}$ 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.

$\sqrt{\text{YṢT}}$ "to lighten, to burn, to catch fire" is attested in three forms: qal (for instance the 3sg. fem. waw-impf. *wattiṣṣaṯ*), nipʕal (3pl. masc. perf. *niṣṣəṯū*) and hipʕil (2pl. masc. impf. *taṣṣîṯū*). The expected forms of a regular I-y verb, such as hipʕîl, *hôṣîṯor *hēṣîṯ, are not attested.

$\sqrt{\text{YṢG}}$ "to set" has hipʕîl (3pl. masc. waw-impf. *wayyaṣṣîgû*) and hopʕal (3sg; masc. impf. *yuṣṣāg*) forms. The regular forms *hôṣîg/*hēṣig are not attested.

(2)   wayyiqəḥû pəlištîm ʔeṯ ʔărôn hāʔĕlōhîm wayyābîʔû ʔōṯô bēyṯ
       Dāgôn wayyaṣṣîgû ʔōṯô ʔēṣel 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. YṢQ and YSR

The roots $\sqrt{\text{YṢQ}}$ and $\sqrt{\text{YSR}}$ 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.

$\sqrt{\text{YṢQ}}$ "to pour" has a Ugaritic cognate <YṢQ>. This root is attested in qal, hipʕîl and hopʕal, but unlike the previous roots, it has both y-assimilating and regular forms. In the qal, we have both the imperfective form ʔeṣṣōq with assimilation (see example 3) and the regular waw-imperfective *wayyîṣeq* without assimilation (example 4).

(3)   ʔeṣṣōq rûḥî ʕal zarʕekā
       "I will pour my spirit upon thy seed and my blessing upon thine
       offspring." (Isaiah 44:3)
(4)   wayyīṣeq dam = hammakkāh ʔel ḥēyq hārākeb
       "And the blood ran out of the wound into the midst of the chariot."
       (I Kings 22:35)

In the hipʕîl, we find the waw-imperfective *wayyaṣṣîqû* with assimilation of yôḏ, but the infinitive *môṣāqeṯ* (II Kings 4:5) shows no assimilation. Finally, in the hopʕal, only regular forms are found: perfective *hûṣaq*, imperfective *yûṣaq*.

√YSR "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 *ʔessŏrēm* "I will chastise them" (Hosea 10:10). It is the only II-s verb to do so.

3.3. YṢʕ, YṢB and YṢR

The roots √YṢʕ "to spread" and √YṢB "to take one's stand" both have Arabic cognates, respectively *waḍaʕa* "he laid down" and *waṣaba* "he was firm", from proto-Semitic √wɫ′ʕ and √ws′b. In these two roots, the assimilating yôḏ comes from an older *w (Huehnergard 2006: 460). As for √YṢR "to form", comparative evidence is ambiguous.

√YṢʕ "to spread" is only attested in hipʕîl (3sg. masc. impf. *yaṣṣîᵃʕ*) and in hopʕal (3sg. masc. impf. *yuṣṣaʕ*). 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.

√YṢB "to station oneself, take one's stand"[3] is attested only in the hitpaʕēl (3sg. masc. impf. *yiṯyaṣṣēḇ*). 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 hitpaʕēl. However, this verb has a derived maqtal *maṣṣāḇ* "place, military post", whose exact meaning can be illustrated by the following example:[4]

(5)   wa-yyiggālû šənēyhem ʔel maṣṣab pəlištîm
       "And both of them (Jonathan and his armour-bearer) appeared to
       [the men] of the garrison of the Philistines" (I Samuel 14:11)

√YṢR "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

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3   Hebrew √YṢB is not to be compared with the root √NṢB "to erect" (reflected by Arabic *naṣaba, yanṣubu* "he set up, he erected"), whence Ugaritic √NṢB "to erect" (<SKN> "a stele"), Hebrew nipʕal 3sg. masc. perf. *niṣṣaḇ* <*na-NṢáB-a) and *maṣṣēḇāh* "stele" (= phoen. <MṢBT>, neo-Pun. <MNṢBT>), pointing to *ma-NṢiB-atu- (Krahmalkov 2001: 128).

4   In the sentence following this passage (I Samuel 14:12) *ʔanəšēy ham-maṣṣābâ* "the men of the garrison", the word *maṣṣāḇ* is likely to have been a glotta, being mistaken for a proper name in the Septuaginta, which renders *ʔanəšēy ham-maṣṣāḇâ* by oi 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 nipʕal *nōṣar* and hopʕal *yûṣar* and qal waw-imperfective 3sg. masc. *wayyīṣer*.

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

6   bə-ṭerem ʔeṣṣārəkā (ʔṢWRK) babbeṭen yədaʕtîkā
     "Before I formed thee in the belly I knew thee." (Jeremiah 1:5)

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

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 maqtal-s of the form $môC_2āC_3$ discussed in the previous section. However, we will show in section 4 that the waw-imperfective *wayyīṣer* and *wayyīṣeq* 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 √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 √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 √YTN are summarized in Table 2.[5]

Table 1. y-assimilating verbs in Hebrew

Root	Meaning	qal	nipʕal	hipʕîl	hopʕal	yitpaʕēl
√YṢG	to set			wayyaṣṣîgû	yuṣṣāg	
√YṢR	to knead	(wayyīṣer)	(nōṣar)		(yuṣar)	
		ʔeṣṣārəkā				
√YṢṮ	to lighten	wattiṣṣaṭ	niṣṣəṯū	taṣṣîṯû		
√YṢʕ	to lay			yaṣṣîªʕ	yuṣṣaʕ	
√YṢB	to station					(yiṯyaṣṣēb)
√YṢQ	to pour	(wayyīṣeq)		wayyaṣṣîqû	(yûṣaq)	
√YṢR	to chastise	ʔeṣṣōq ʔessŏrēm		(ʔayəsîrēm)		

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
Maqtal	ma-ta-an-ba-ʕ-al[a] Neo-Pun. m'tʻbʻl	*mattōn "gift" CS *mattan-baʕal	*ma-WTáN-u- "gift"	PN *mattān*[b] *mattan-yāhû*[c]
Miqtal[d]	Mitun,[e] Metun[f] Metunilim[g]	*mittōn "gift" Juxt. *mittōn + ilīm	*mi-WTáN-u- "gift"	Ø
Maqtil	Ματτήν,[h] ma-ti-nu-ba-ʕ-li[i]	*mattén "gift" Juxt. *mattinu + baʕli	*ma-WTíN-u- "gift"	Ø
Miqtil	mi-e-te-en-na[j] Μεττηνος[k]	*mittén "gift"	*mi-WTíN-u- "gift"	Ø
Muqtal	Μυττυνος,[l] Μοττονης[m] MUT(H)UN[n]	*muttōn "given"	*mu-WTáN-u- "given"	Ø
Deus dedit	*Μιλκιαθων (Rhod. gen. sg. mi-li-ki-ya-to-no-se)[o]	*Milk(u) yatōn "the god Milk has given"	*X YáTaN-a (Proto-Phoen. *YaTáN)	PN *yô-nātān* "YHWH has given" *nǝtan-ʔēl*[p]
dedit Deus	Ø	Ø	*YaTaN-a X	*nǝtan-yāhû*[q] *nǝtan-melek*[r]

[a]Annals of Assarhaddon 5[60](Reign: 680–669 BC). Data apud Friedrich (1951: 89).

[b]Name of a priest of Baal (II Kings 11:18).

[c]Levite name (I Chronicles 25:4). Compare with *Nǝtanyāhû* "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 *Nǝtanyāh* (II Kings 25:23).

[d]As pointed out by an anonymous reviewer, we do not find any gemination in the Latin transcriptions of miqtal; this fact is unexplained.

[e]CIL 8, 27527.

[f]CIL 8, 20492.

[g]CIL 8, 12322. Properly "given by the gods".

[h]Herodotus, VII, 9. Personal name of a Tyrian leading a ship among the Persian fleet (Τύριος Ματτὴν Εἰρώμου "Mattén the Tyrian, son of ʔaḥīrōm"). Note the accent on the final syllable.

[i]Annals of Salmanazar 2:93 (Reign: 727–722 BC). Compare with the seventh-century PN *Mattanbaʕl.

[j]Annals of Tiglath-pileser III 67:66 (he conquered Phoenicia from 743 to 738).

[k]Flavius Josephus, C, 124. King of Tyre, son of Βαλεζωρος (*Baʕl ʾazōr "Baal helped me"). His reign was from 850 to 821 BC. In the ninth century, his name was perhaps still something like *Mittínu rather than *Mittén.

[l]Judge (i.e. suffet) of Tyre (Jos., Ap. 1, 157).

[m]Dittenberger 1915: 585, 86.

[n]CIL 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 maqtūl *ma-WTūN-u-

[o]CIS 1, 10.2. See also Friedrich (1951: 66a, 78c, 132b and 193b).

[p]From Proto-Hebr. *natana-ʔil(u) "the (bull-)god ʾilu has given".

[q]From Proto-Hebr. *natana-YHWH "YHWH has given".

[r]Maybe 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 √YTN is reflected in one personal name *Yatnī?ēl* (1 Chronicles 26:2) and the place name *Yitnān* (Josuah 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 √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 √NGŠ "to get closer" vs. *šēb* from √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 √YTN can be found in Hebrew. The Akkadian form *nadānum*, though probably cognate to Hebrew √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 *√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: √YDʕ "to know", √YTB "to sit" (< *√wθb) and √Yṣʔ "to bloom" (< *√wɬʼʔ). The conjugation of the first two verbs is well documented in all grammars of Biblical Aramaic (see for instance Rosenthal 1988: 73).[6] √YTB has the imperfective form *yittib̠*, which presents a clear case of y-assimilation:

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

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6   The verb "to be able" √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 √YDʕ "to know" is slightly more complex, since its imperfective (3sg. fem.) is *tindaʕ*, instead of expected *tiddaʕ 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)   *tindaʕ < *tandaʕ < *taddaʕ < *taydaʕ

The root √Yʕʔ "to bloom" presents an even more complex evolution. Targum Aramaic <YNʕY> *yinʕēʔ* is the imperfective 3sg. masc. of the verb *yəʕaʔ* meaning "to bloom". It is found in the Onkelos Targum, where it glosses Hebrew √PRḤ "to grow sprouts" or √ṢWṢ "bloom" (Jastrow 1903: 583). The perfective form *yəʕaʔ* goes back to a Common-Semitic protoform *waɬ'aʔ-a "he went out" (Geʕez *waḍaʔa*, Hebrew *yāṣāʔ*). The meaning "to grow sprouts" is found in Akkadian (w)aṣûm (<*waɬ'āʔ-u-) "to go out, to grow, to bloom".

The imperfective form <YNʕY> *yinʕēʔ* is extremely irregular; dictionaries set a distinct root √Nʕʔ alternating with √Yʕʔ. We propose a different solution, which involves y-assimilation like the two previous verbs: *yawɬ'iʔ-u > *yayɬ'iʔ > *yaɬ'ɬ'iʔ

(9)   *yaɬ'ɬ'iʔ < *yayɬ'iʔ < *yawɬ'iʔ-u

Assimilation took place before the regular Aramaic change *ɬ' > ʕ, when the place of articulation of this consonant was still coronal. After this assimilation, a dissimilation occurred, exactly as with √YDʕ "to know".

(10)   *yandiʔ < *yaḍḍiʔ < *yaɬ'ɬ'iʔ

This dissimilation took place at an intermediate stage of change, when the consonant coming from proto-Semitic *ɬ' was still a coronal, but had become voiced: *ɬ' changed to ʕ 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 *yinʕēʔ* < *yandiʔ.

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 √NTN, Phoenician √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 *baytu*[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 *bāttîm* (Joüon and Muraoka 2006: 294). The same gemination is found in Aramaic dialects. In Biblical Aramaic, the attested plural is *battê-ḵôn* < *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 *bêṯ* = , 1sg possessive *bêṯ-î* from proto-Semitic *báyt-i-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 *bāttê-ḵem*, Biblical Aramaic *battê-ḵôn* "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 *bāttîm* 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 *battê–*)
         *bayt-īm a > *batt-īma (status absolutus plural, Hebrew *bāttîm*).

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

(12)   *báyt- (status constructus singular, Hebrew *bêṯ–*)
         *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 (*-VyTV́- > *-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 > *bəyāṯîm.[7] This is actually the form attested in Ugaritic.[8]

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7 Plurals built on the binyan QaTaL are very widespread in North-West Semitic, as in Hebrew *meleḵ* < *málk-u- "king" vs. *məlāḵîm* < *malak-īm "kings".

8 In Ugaritic, the singular BT *bêtu comes from the same proto-form *báyt-u- as Hebrew *báyit*, but the plural BHT-M "the houses" is not directly comparable to *bāttîm*. 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 *ḥăyālîm* "strength, army''. However, we also find simple plurals of the type *CayC-īm, such as *zayṯ* "olive", plural *zēyṯîm* < *zaytīm "olive trees" (as in the place name *har hazzēyṯîm* "Mount of Olives").

The irregular plural of *báyiṯ* constitutes important evidence for the rule of y-assimilation: it proves that this rule cannot have taken place before the change *w > *y, otherwise *báyiṯ* 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 $\sqrt{YṢR}$ "to make" and *wayyī́ṣeq* from $\sqrt{YṢQ}$ "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 *wayyíṣṣer and *wayyíṣṣeq on the model of I-n roots.

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

(13)   *wayyī́ṣer* < *wa-yá-yṣir
        wayyī́ṣeq < *wa-yá-yṣiq

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) *Ɂeṣṣōq* < *Ɂa-yṣúq

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) *s', *ɬ', *θ'. No traces of assimilation with other coronals such as *z, *n, *ð, *ɬ, *ʃ, *l and *t' 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-ū-ma.

which have resisted analogy. Among the verbs preserving the y-assimilation rule, the significant proportion of roots with Ṣ as a second root consonant in Hebrew probably reflects the fact that this consonant results from the merger of three proto-Semitic consonants: *s', *ɬ' 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 maqtal 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 *báyit̲*, which would have to be analysed as an entirely unrelated fact.

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