AN UNEXPECTED CO-OCCURRENCE RESTRICTION ON SYRIAC ROOT CONSONANTS*

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ABSTRACT

The aim of this paper is to highlight an unexpected, and so far, unidentified, root consonants incompatibility in Syriac. It is generally admitted that Semitic radical w and y can combine freely with any other radical consonant. This is indeed mostly the case in Syriac. However, as I shall demonstrate, final radical w is subject to a dissimilatory constraint: it cannot follow a homorganic medial root consonant, viz. labial p, b, m and velar k, g, q. Syriac semi-vowels phonology is blurred by several processes (both synchronic and diachronic) that neutralize the opposition between w and y in favor of y. In order to demonstrate the regularity of the incompatibility of final radical w with preceding homorganic medial radicals, exhaustive examination of the III-w roots is consequently carried out.

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1. ROOT INCOMPATIBILITIES AND RADICAL SEMI-VOWELS[1]

It is well known that certain combinations of consonants are avoided within Semitic triconsonantal roots.[2] The two major limitations are the impossibility of two identical initial and medial radicals such as *__mmd__ and the trend to disfavor two homorganic radicals such as *__mpd__ *__dmp__ and *__mdp__.[3] These incompatibilities are accounted for by dissimilatory constraints (Cantineau 1946, Greenberg 1950), formalized in generative grammar under the Obligatory Contour Principle (see among others McCarthy 1979, 1983, 1989).[4]

In general, Arabic root incompatibilities are valid, mutatis mutandis, for the other classical Semitic languages, Syriac included (Greenberg 1950: passim). Regarding the patterning of semi-vowels, Arabic *w* and *y* combine with almost all the consonants (Greenberg 1950: 164-166) and this is also mostly

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[1] The transliteration of Syriac follows the Eastern tradition. The transliteration of the vowels resembles the system in Nöldeke (1904) and Costaz (1997): matres lectionis are not transliterated, *rbāṣā ʿarrikā* is always transcribed as *e* (never *i* or *ə*). Following the remarks and evidence put forward by Bohas (1999, 2017), Daniels (1997: 135) and Healey (2011: 641), vocal *šəwā* is not marked. For sake of clarity, spirantization of the *bgdkpt* is not written. Note that *h*, *ʿ* and *r* are never geminated; the following compensatory lengthening of the preceding vowel (e.g. /ṭaʿʿiyā/ > *ṭaʿyā* > *ṭāʿyā* 'erring') is a late phenomenon that is not noted in the spelling (see Bohas 2017: 7). For this reason, it is not transcribed here.

[2] Needless to say, these restrictions do not apply outside the root or between the root and affix. The literature on Semitic radical consonants incompatibilities is large, see Vernet (2011) for a comprehensive overview. Not too surprisingly, studies that specifically deal with Aramaic are rare. We can mention Aešcoly (1937-40) which unfortunately I could not consult and, with focus on roots with identical II and III radicals, Bohas (1990) and Hoberman (1993).

[3] Note that each language also has its own restrictions (e.g. in Akkadian, dissimilation applies on two emphatic consonants (Geers' Law) as in *qaṭnu* > *qatnu* 'thin' cf. Hebrew *qāṭān* 'little') and that some constraints are not of dissimilatory origin (e.g. in Akkadian *g* and *ẓ* as III radicals are excluded, cf. Moscati 1964: 74).

[4] On the Ethio-Semitic roots with identical I and II radicals, see Banksira (2000).

the case in Syriac.[5] Indeed, Syriac initial *w* and *y* are compatible with any consonant, including homorganic ones: *w* combines with II or III labials and velars and *y* combines with II or III coronals (i.e. dentals and palatals).[6] Some examples are given below:[7]

	II-labial		III-labial	
I-w	*wbl*	'to conduct'	*whb*	'to give'
	wmy	'to swear'	*wsp*	'to add
	wpy	'to finish'		

	II-velar		III-velar	
I-w	*wgy*	'to reject'	*wrq*	'to be green'
	wqr	'to be heavy'		

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[5] For that reason, studies that do not take the semi-vowels into account are common (e.g. McCarthy 1989, Pierrehumbert 1993). Nonetheless, McCarthy (1989: 18) already noted that *w* and *y* may be subject to some incompatibilities.

[6] I follow the characterization of the coronal feature suggested by Clements (1993) that includes the palatal articulation. That is, Syriac coronal consonants are: dental *t, d, ṭ, s, z̧, ṣ, l, n, r*, post-alveolar *š* and palatal *y*. In fact, whatever the feature by which *y* is defined (coronal, palatal, dorsal), it is clear that it can combine with all the root consonants. Besides, it is not significant here to distinguish between obstruent coronals *t, d, ṭ, s, z̧, ṣ, š* and sonorant coronals *l, n, r* as is sometimes necessary when considering root incompatibilities. I also consider *q* as the emphatic counterpart of *k*, that is as a velar consonant (cf. Moscati 1964: 37). To consider *q* as an uvular will not affect our analysis: instead of 'velar' it would be just necessary to understand 'velar and uvular'.

[7] There are about thirty I-w roots (isolated nouns included); evidence that these roots are still I-w from a synchronic perspective (cf. forms as *ʾawdaʿ* 'he made known') is given in Aïm (2016: 87-90). Note that Syriac *wbš* is related to Arabic and Geez *ybs* and that Syriac *wdʿ* is related to Akkadian *wdʾ* and to Arabic and Geez *ydʿ*. I-y roots are very rare. In addition to the examples above, they are attested by some roots (*yʾy* 'beautiful', *yʾb* 'to desire', *ybb* 'to sound', *yll* 'to wail') and by about ten isolated nouns (e.g. *ʾidā* < /yadā/ 'hand', *yadnā* 'hyena', *yawmā* 'day', *yawnā* 'dove', *yammā* 'sea'). There are also some loans and interjections. Besides, both initial and medial radical *w* shift to *y* in various contexts; on this well-known sound change, see Aïm (2016).

	II-coronal		III-coronal	
I-y	*ynq*	'to suck'[8]	*ymn*	'right'
	ytm	'orphan'	*ybl*	'couch-grass'
	ylp	'to learn'[9]		

In the same way, II *w* and *y* are compatible with I or III homorganic consonants, e.g.:[10]

	I-labial		III-labial	
II-w	*pwš*	'to remain'	*swp*	'to perish'
	bwr	'to be waste'	*ḥwb*	'to be inferior'
	mwt	'to die'	*nwm*	'to fall asleep'

	I-velar		III-velar	
II-w	*kwn*	'to be, exist'	*twk*	'to cease'
	gws	'refuge'	*ḥwg*	'to go around'
	qwm	'to rise'	*swq*	'to breathe'

	I-coronal		III-coronal	
II-y	*ṭyn*	'mud'	*qyṭ*	'summer'
	dyn	'judgment'	*ḥyl*	'strength'
	sym	'to place'	*gys*	'army'

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[8] In causative conjugation, the root appears in two forms: *ʾayneq ~ ʾawneq* 'to suckle'.

[9] Cf. Hebrew *ʾlp* and Arabic *ʾlf*.

[10] As it is well known, II-y verbs merged diachronically with II-w verbs (the intervocalic syncope of *y* and *w* and the shift *w>y* have certainly favored mixing and then leveling of the conjugations, cf. Brockelmann 1910: 185). As a result, II-w verbs are numerous whereas II-y verbs are rare (*sām, nsīm* 'to place', the other verbs being frequently considered as denominatives, e.g. *ḥayyel* 'to strengthen' from *ḥaylā* 'force'). The same process occurred in the nouns as well; the opposition between II-y and II-w roots remains mostly in the *CaCC* pattern, e.g. *ḥaylā* 'force' vs. *qawmā* 'standing position'. Apart from that, no attempt is made in the present study to distinguish between hollow II-w roots and roots with strong *wāw*; on this particular issue, see Aïm (2017).

With regard to the final semi-vowels, *y* patterns with all the consonants, homorganic ones included (note that III-y roots are more numerous than I-y and II-y roots), e.g.:

	I-coronal		II-coronal	
III-y	*tpy*	'hearth'	*rty*	'to admonish'
	dhy	'bright'	*bdy*	'to imagine'
	ṭby	'gazelle'	*sṭy*	'to deviate'
	sny	'spiny bush'	*ʿsy*	'doctor, to cure'
	zwy	'angle'	*gzy*	'to be bereaved of children'
	ṣby	'to be willing'	*ḥsy*	'holy'
	šny	'to go away'	*nšy*	'to forget'
	lwy	'to accompany'	*bly*	'to be worn'
	nqy	'to sacrifice'	*gny*	'to lie down'
	ršy	'to blame'	*gry*	'greedy'

In contrast, the distribution of final *w* is limited. First and foremost, a historical process common to all the Northwest Semitic languages has leveled the paradigms of the III-w verbs (and of almost all the III-ʾ verbs in Aramaic) to the paradigms of the III-y verbs, leading to the almost complete vanishing of III-w verbs.[11] The same leveling is evidenced in the nouns, albeit incompletely. Consequently, some III-w nouns remain, generally alongside verbs and nouns of the same historical root but which have transformed to III-y, e.g.: [12]

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[11] Most grammars discuss the III-w/y verbs as III-Alaph verbs since the final long vowel of these verbs (which results from the syncope of *y* or *w*) is written with an Alaph. Besides, note that the tendency to change III-w verbs into III-y verbs appears also in Standard Babylonian (Huehnergard 2000: 598) and sedentary Arabic dialects (Kaye and Rosenhouse 1997: 297)

[12] Loanwords are not considered. Generally, *w* is retained (e.g. *ʾarwānā* 'calf' < Avestan *aurvant*, *badwāyā* 'bedouin' < Arabic *badawī*, *kalwā* 'miter' < Latin *calautica*) even when preceded by a homorganic consonant as in *gagwāyā* 'a fornicator, harlot' < Akkadian *gagū* < Sumerian *gagi* 'cloister, hierodulic home'.

III-y verb		III-y noun		III-w noun	
ṭʿā	'to wander'	ṭaʿyā[13]	'erring'	ṭaʿwānā	'error'
ḥzā	'to see'	ḥāzōyā	'spectator'	ḥezwā	'vision'
ḥdā ~ ḥdī	'to rejoice'	ḥaddāyā	'joyful'	ḥadwtā	'joy'
sḥā ~ sḥī	'to take a bath'	saḥḥāyā	'swimmer'	saḥwā	'swimming'
šlā ~ šlī	'to rest'	šullāyā	'cessation'	šalwā	'rest'
tnā	'to repeat'	tnāyā	'exception'	tenw-ay[14]	'clause'

Minimal pairs (or almost) and doublets are not uncommon, e.g.:

III-y noun		III-w noun	
ḥadytā	'joy'	ḥadwtā	'joy'
ḥazyā	'visible'	ḥezwā	'vision'
ḥayytā	'midwife'	ḥaywtā	'animal'
leʾyā	'weariness'	/leʾwtā/ > lēwtā[15]	'weariness'
patyā	'broad'	petwā	'breadth'
ṣahyā	'thirst, thirsty'	ṣahwā	'thirst'

In order to bring out the regular aspect of the restrictions to which *w* is subject, let us consider now, in synchronic perspective, all the morphophonological contexts in which final *w* appears. III-w nouns will be examined according to their pattern: disyllabic *CaCaw*, monosyllabic *CvCw* and

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[13] From underlying /ṭaʿʿīyā/; remember that ʿ is not geminated at the 'phonetic' level.

[14] For sake of clarity, morphological boundaries are sometimes noted.

[15] See below the section on the feminine *CvCw* nouns.

augmented by affixes.[16] Mention will be made of the rare III-w verbs.[17]

2. III-W NOUNS AND VERBS

2.1. *CaCaw* nouns

All the attested disyllabic III-w nouns are feminine. According to Duval (1881: 212-213, 215) and Brockelmann (1912: 43),[18] their pattern is *CaCaw* (or at least *CvCaw*) where /aw/ develops into *ō*:[19]

/baraw-tā/	>	*brōtā*	'sawdust'
/dayaw-tā/	>	*dyōtā*	'ink'
/ḥayaw-tā/	>	*ḥayōtā*[20]	'animal'
/ḥaraw-tā/	>	*ḥrōtā*	'thigh'

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[16] A great number of III-w nouns appears with various vocalizations, e.g. *mḥōtā ~ maḥōtā* or *maḥḥōtā ~ māḥōtā* 'brim', *mṭūtā ~ maṭūtā* or *maṭṭūtā ~ māṭūtā* 'portion'. In most of the cases, the first vowel can either vanish (*mḥōtā*) or remain albeit in open syllable (*maḥōtā*). In this last case, it could be a form with geminate consonant (*maḥḥōtā*). Note that vowel retention in open syllable is common after the vocalization of *w* into *ū*, e.g. /ḥadwtā/ > *ḥadūtā* 'joy'. Anyway, these questions do not affect the argument of this paper. Thus, for reason of place and clarity, only one variant of each noun will be cited unless variations are of interest.

[17] Most of the data has been drawn from Brockelmann (1928), Payne Smith (1879-1901), Payne Smith (1903) and Costaz (1997). I have occasionally checked Eastern Syriac vocalization in Audo (1985).

[18] Contra Birkeland (1947: 30) who argues for a *CvCāw* pattern. Of course, the Western Syriac form is *CCūtō* as in *brūtō*, *dyūtō*, etc.

[19] Some variations occur in the *CaCaw* nouns declension, compare sg. emph. *ṣlōtā*, sg. cst. *ṣlōt*, sg. abs. *ṣlō*, pl. emph. *ṣalwātā* (as in Nöldeke 1904: 52) or *ṣlawātā* (as in Muraoka 1997: 25, 26 note 15) vs. sg. emph. *mḥōtā*, sg. cst. *maḥwat*, sg. abs. *maḥwā*, pl. emph. *maḥwātā*. These fluctuations could be due to a difference in stem (resulting from interactions between *CaCaw* nouns, *CvCw* nouns and abstract nouns with –*ūt*, as advocated by Duval 1881: 213) or - as a reviewer pointed out to me - a difference between the two allomorphs -*t*/-*at* of the feminine suffix (/ṣalaw-t/ > *ṣlōt* vs. /maḥaw-at/ >*mḥōt*, cf. Brockelmann 1908: 407).

[20] According to Duval (1881: 212-213); other sources give *ḥayūtā*.

/kabaw-tā/	>	kḇōtā	'excrement, dung-cake'
/maḥaw-tā/	>	mḥōtā	'blow'
/maḥaw-tā/	>	mḥōtā	'brim, balustrade'
/masaw-tā/	>	msōtā	'rennet'
/ṣalaw-tā/	>	ṣlōtā	'prayer'
/šaḥaw-tā/	>	šḥōtā[21]	'axilla'
/šaʕaw-tā/	>	šʕōtā	'wax'

In addition, three feminine *CaCaw* nouns are extended with the suffix *-ī*. Here, intervocalic final *w* is preserved. Eastern Syriac lengthen the preceding /a/ into *ā* (/aw/ > *āw* is a regular process in Eastern Syriac) whereas Western Syriac retains the underlying quantity:

		Eastern Syriac	Western Syriac	
/ḥawaw-ī-tā/	>	ḥwāwītā	ḥwawītō	'female-serpent'
/ʕanaw-ī-tā/	>	ʕanāwītā[22]	ʕnawītō	'stomach'
/ʕaraw-ī-tā/	>	ʕarāwītā[23]	ʕrawītō	'fever, shivering'

2.2. Masculine *CvCw* nouns

Masculine *CvCw* nouns are very common.[24] They are given in the following list:

baʕwā	'camel's hair'	ʕelwā	'leathern bottle'
hetwā	'grey heron'	ʕelwā[25]	'waking state'
ḥadwā	'joy'	petwā	'breadth, ampleness'
ḥezwā	'vision, sight'	sadwā	'mockery'
ṭašwā	'secret'	ṣahwā	'thirst'
marwā	'origanum syriacum (plant)'	ṣaḥwā	'fine weather'
salwā	'spine'	ṣarwā	'pine kernels'
saḥwā	'swimming'	šalwā	'cessation'
satwā	'winter'		

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[21] Cited in Duval (1881: 215).

[22] Variant: *ʕanwītā*.

[23] Variants: *ʕarwītā* and *ʕarāwītā*.

[24] There appears to be no sg. abs./cst. form for these nouns.

[25] Variants: *ḥāwā* and *ʕelāwāy*.

In addition, two *CvCw* nouns exhibit free alternation between *w* and *b*.[26] In the case of *šalbā* ~ *šalwā* ~ *šelwā* 'a mountain pass, cave, chasm, hollow', *w* is likely original, at least diachronically, since the root *šlw* appears in the Akkadian noun *šīlu* ~ *šēlu* 'depression, concavity'. On the contrary, in the case of *ʾelāwā* ~ *ʾalwā* ~ *ʾelbā* 'colostrum', *b* seems to be etymological because of the Arabic cognate *libaʾ*.[27] However, *w* would consequently come from the unexpected and exceptional postconsonantal weakening of *b*.[28]

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[26] The original consonant in *ḥedwā* ~ *ḥedbā* 'cichorium endivia (plant)' might be *b* as shown by the parallel form *ḥendbā* and its Greek etymology *ἐντύβον* (see Sokoloff 2010: 346). I would like to thank here the reviewer who let me know this fact and provide me the reference in Sokoloff (2010).

[27] This hypothesis is also suggested by Neo-Syriac form, see Brockelmann (1928: s.v. *ʾalwā*).

[28] In two special cases, it is impossible to determine with certainty the underlying semi-vowel. First, there is a -*awātā* plural suffix, e.g. *nahrā* > *nahrawātā* 'river'. Some nouns definitely III-y form their plural with this suffix with a further syncope of *y*, e.g. *rāʿyā* > *rāʿawātā* 'shepherd'. Some nouns, possibly III-y or III-w, also form their plural in this way, e.g. *ḥewyā* > *ḥwawātā* 'serpent'. Now the plural suffix -*ātā* exists as well, e.g. *malkā* > *malkātā* 'queen'. So, we might think that the sequence *aw* does not belong to the suffix but to the noun: /ḥwaw-ātā/. Consequently, there would be an alternation between *w* and *y*. Whether in case of the root of an isolated name or in case of a root already attested under the two forms III-w and III-y, it is not possible to confirm this hypothesis nor to define the underlying semi-vowel with certainty. For instance, is *ḥewyā* from a III-y root (as its singular as well as its Arabic cognate *ḥayy-(at)* suggest) or from a III-w root (as its feminine and plural counterparts *ḥwāwtā* and *ḥwawātā* imply)? The same reasoning applies to nouns whose final semi-vowel merges with the preceding vowel in the singular (e.g. *sḥātā* 'washing' from /saḥaw-tā/ or /saḥay-tā/, cf. *saḥwā* 'swimming' vs. *sḥāyā* 'purification') and whose plural is formed with -*awātā* (e.g. *sḥawātā*). Note that the Eastern Syriac form of the suffix is -*awātā* according to Audo (1985: passim) and Muraoka (1997: 25) but -*āwātā* with expected *aw>āw* according to Nöldeke (1904:35) and Costaz (1997: 30); it is transcribed as -*auwātā* (that is -*awwātā*) in Brockelmann (1912). The Western Syriac form is -*awōtō*. On some *y-w* interchanges in the broader perspective of comparative afroasiatic linguistics, see Putten (2018).

2.3. Feminine *CvCw* nouns and feminine abstract nouns with *-ūt*

Difference between feminine *CvCw* nouns and feminine abstract nouns with *-ūt* from defective roots is small. Indeed, the adding of *-ūt* to III-y nouns is occasionally followed by the syncope of *y* (e.g. /demy-ūtā/ > *dmūtā* 'image', /ṣeby-ūtā/ > *ṣbūtā* 'will'). As a result, the declension of these III-y abstract nouns and that of the feminine *CvCw* nouns partly coincide. This is illustrated in the following table with an (almost) minimal pair already pointed out by Nöldeke (1904: 52, note 1). Identical forms are in bold; triliteral regular abstract noun *malkūt* 'kingdom' is given for the sake of comparison: [29]

		CvCw /ḥayw-/	*CvC-ūt* < /CvCy-ūt/ /ḥay-ūt/ < /ḥayy-ūt/	*CaCC-ūt* /malk-ūt/
sg.	abs.	*ḥayw-ā*	*ḥay-ū*	*malk-ū*
	cst.	*ḥayw-at*	*ḥay-ūt*	*malk-ūt*
	emph.	**ḥayū-tā**	**ḥay-ūtā**	*malk-ūtā*
pl.	abs.	**ḥayw-ān**	*ḥay-wān*	*malk-wān*
	cst.	**ḥayw-āt**	*ḥay-wāt*	*malk-wāt*
	emph.	**ḥayw-ātā**	*ḥay-wātā*	*malk-wātā*
		'animal'	'life, animality'	'kingdom'

The declension forms that allow to distinguish between *CvCw* and *CvC(y)-ūt* nouns are the singular absolute and the singular construct. In addition to *ḥaywtā* ~ *ḥayūtā* 'animal',[30] nouns which are unmistakably *CvCw* owing to the attestation of their sg. abs. and/or sg. cst. are the following (the free realization of /w/ as *w* or *ū* between two consonants is regular, the compensatory lengthening /eʾ/ > /e/ > *ē* appears frequently):

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[29] The inflected forms of the two examples are not all attested (of course, the unattested forms have been reconstituted by analogy with the declension of other nouns). The most relevant forms, viz. sg. abs. *ḥaywā* vs. *ḥayū* and sg. cst. *ḥaywat* vs. *ḥayūt* are nevertheless attested.

[30] Also *ḥayōtā*, cf. supra under the *CaCaw* nouns section.

sg.	abs.	*ḥadwā*	not attested			/leʾwā/ >	*lēwā*
	cst.	*ḥadwat*	/geʾwat/ >	*gēwat*		/leʾwat/ >	*lēwat*
	emph.	*ḥadwtā* ~	geʾwtā/ >		*gēūtā*	/leʾwtā/ >	*lēwtā* ~
		ḥadūtā					*lēūtā*
		'joy'[31]	'pride'			'weariness'	

However, the sg. abs. and sg. cst. are not always attested. As a result, we often lack relevant morphophonological information necessary to determine whether a noun is *CvCw* or *CvC(y)-ūt*. What is left to decide is the meaning.[32] The abstract meaning of some nouns leads us to consider them as possible abstract III-y nouns with *-ūt*:

/ruʿy-ūtā/	>	*ruʿūtā*	'opinion'
/ta-rʿy-ūtā/	>	*tarʿūtā*	'reconciliation'

Conversely, nouns whose meaning is clearly concrete are more likely III-w nouns:

/hetw-tā /	>	*hetūtā*	'female grey heron'[33]
/ḥadw-tā /	>	*ḥadūtā*	'silo'[34]
/ḥānw-tā/	>	*ḥānūtā*	'cell, room, shop'
/kašw-tā/	>	*kšūtā* [35]	'cuscuta (plant)'
/maṭw-tā/	>	*mṭūtā*	'portion'
/masw-tā/	>	*msūtā*	'cypress'
/ma-nṣw-tā/	>	*maṣṣūtā*	'quarrel'
/saḥw-tā/	>	*sḥūtā*	'washing, ablution'

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[31] Cf. its masculine form *ḥadwā* 'joy'.

[32] Comparative analysis helps define the roots that have been historically III-w. But since the majority of III-w roots have become synchronically III-y in Syriac, the comparative evidence has a limited impact in a synchronic study like the present one.

[33] Cf. its masculine counterpart *hetwā*.

[34] Or perhaps *ḥaddūtā*, cf. note 16.

[35] According to Payne Smith (1879-1901: q.v.), it is a loan from Arabic, as suggested by the irregular sound correspondence Syriac *š* – Arabic *ṯ*. This etymology is not retained by Brockelmann (1928: q.v.).

/ma-sḥw-tā/	>	*mashūtā*	'bath, watering'
/parw-tā/	>	*prūtā*	'skin, leather garment'
/qaṯw-tā/	>	*qṯūtā*	'cucumber'
/šāqw-ūtā/	>	*šāqūtā*	'irrigation, drink'
/šārw-tā/	>	*šārūtā*	'meal, banquet'[36]
/ta-msw-tā/	>	*tamsūtā*	'pus'

Finally, note that because of its meaning, *gālūtā* 'exile, captivity' seems to be an abstract noun. However, its related adjective *gālwāyā* 'exile (pers.)' indicates that the root they share is III-w.

2.4. III-w nouns augmented with afformatives

In most cases, augmented patterns are analyzable as *CvCw* nouns[37] with an additional affix such as -*ay* (an archaic feminine suffix), -*āy*, -*ān* or -*āʾīt* (an adverbial suffix)[38], e.g.:

dawḇay	'a kind of bird'	*ḥezwānā*	'vision'
salway	'quail'	*ṭaʿwānā*	'error'
tenway	'clause, treaty'	*šahwānē*	'cold'
ḥānwāyā	'tavern-keeper'	*šalwāʾīt*	'intermittently'
šalwāyā	'a bucket for drawing water'	*šarwāʾīt*	'at first'
šalwāyā	'ceasing'		
šarwāyā	'new'		
satwāyā	'wintry'		
ʿanwāyā	'humble, little'		

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[36] The case of *šārūtā* which has a concrete meaning but a sg. abs. *šārū* whose shape is that of an abstract noun with -*ūt* is is to be paralleled with the already noted irregularities of *ṣlōtā* 'prayer' whose sg. abs. is *ṣlō* in place of expected *ṣalwat*.

[37] Or eventually as disyllabic *CvCvw* with second vowel syncope after addition of the suffix, e.g. *ˀ*/salaw-ay/ > *salway* 'quail'.

[38] On this particular suffix, see Butts (2010).

Nouns with multiple suffixes are also frequent, e.g. *ḥānwāyūtā* 'hermit's life',[39] *šarwāyūtā* 'beginning', *ʿanwāyūtā* 'humility'. Finally, forms with both prefix and suffix (e.g. *mʿanwyā* 'humble'), patterns other than *CaCaw* or *CvCw* (e.g. *ʾāwā* 'waking state', *ḥānūtā* 'cell, room, shop') and participles of III-w verbs (see below) enlarged with suffixes (e.g. *methzawzīnūtā* 'manifestation') are found at times.

2.5. III-w verbs

All the III-verbs are denominative, built on the rare verbal patterns *paʿli*, *ʾetpaʿli* and *ʾetpaʿʿi* (which is the form of *ʾetpaʿʿal* with defective roots). They are listed below with the nouns from which they are derived:

nouns		denominative III-w verbs	
gālūtā	'exile'	*galwī*	'to exile'
		ʾetgalwī	'to emigrate'
ḥezwā	'vision'	*ʾethzawzī*	'to swagger'
ʿanwāyā	'humble'	*ʾetʿanwī*	'to apply oneself to'
tenway	'clause, treaty'	*tanwī*	'to make a contract'
		ʾettanwī	'to be stipulated

3. Co-occurrence restrictions between II labial / velar and III w

First of all, it is clear that *w* combines with any initial consonant, e.g. I-labial *baʿwā* 'camel's hair', I-coronal *satwā* 'winter', I-velar *galwī* 'to exile', I-guttural *ḥezwā* 'vision'. There is therefore no need to dwell upon this point. We shall now examine the combinations with the medial consonant.

The following table takes into account the 54 III-w roots that I was able to identify (I hope that no important data has

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[39] *ḥānūtā* means 'arched chamber, room, cell, shop, booth' hence the related but distinct words and meanings *ḥānwāyā* 'tavern-keeper, huckster' and *ḥānwāyūtā* 'hermit's life' (hermits have often lived in cells).

been overlooked).[40] Each root is illustrated below by one
example (glosses have been added occasionally to avoid
confusion between homophone roots). The table represents
the patterning between each possible medial radical and final
w. For instance, there is one III-w root with *b* as II radical (left
column, line 1), whereas there are 10 different III-w roots with
l as II radical (left column, line 12). The table shows that final
w may be preceded by any coronal or guttural consonant.
Conversely, *w* cannot obviously be preceded by a labial or a
velar, apart from in exceptional cases.

II-labial	b:	1	*kbōtā*
	p:	0	
	m:	0	
	w:	1	*ḥwāwītā*
II-coronal	t:	3	*hetwā, petwā, satwā*
	d:	3	*ḥadwā* 'joy', *ḥadūtā* 'silo', *ṣadwā*
	ṭ:	2	*mṭūtā, qṭūtā*
	s:	2	*msōtā* 'rennet', *msūtā* 'cypress'
	z:	1	*ḥezwā*
	ṣ:	1	*maṣṣūtā*
	š:	2	*ṭašwā, kšūtā*
	l:	10	*ʾelāwā, gālūtā, salwā, ʿelwā* 'leathern bottle', *ʿelwā* 'waking state', *salway, ṣlōtā, šalwā* 'cessation', *šalwā* 'a mountain pass, cave,' *šalwāyā* 'a bucket for drawing water'
	n:	3	*ḥānūtā, ʿanāwītā, tenway*
	r:	7	*brōtā, ḥrōtā, marwā, ʿarāwītā, prūtā, ṣarwā, šarūtā*
	y:	3	*dyōtā, dayway, ḥaywtā*
II-velar	k:	0	

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[40] The three indecisive cases *ʾelāwā ~ ʾalwā ~ ʾelbā* 'colostrum', *ruʿūtā*
'opinion' and *tarʿūtā* 'reconciliation' have been included. Note that *ruʿūtā*
and *tarʿūtā* are from two distinct roots (cf. Brockelmann 1928: s.v. *reʿyānā*
II, *rʿʿ* III).

		g:	0	
		q:	1	*šāqūtā*
III-guttural		ʿ:	5	*baʿwā, ṭaʿwānā, ruʿūtā* 'opinion', *tarʿūtā* 'reconciliation', *šʿōtā*
		ḥ:	5	*mḥōtā* 'blow', *mḥōtā* 'brim, balustrade', *saḥwā, ṣaḥwā, šḥōtā*
		ʾ:	2	/geʾwtā/>*gēūtā,* /leʾwtā/>*lēwtā*
		h:	2	*ṣahwā, šahwānē*

Let us analyze the exceptional cases:

- the first case, /kabaw-tā/ > *kbōtā* 'excrement, dung-cake' is actually on its way to becoming a completely III-y noun: its singular construct and plural emphatic states, respectively *kbay* and *kbayyā* (Western Syriac *kbōyyè*) are already those of III-y nouns.[41]

- the second case, *ḥwāwītā* 'female-serpent' also presents a mixed declension: the masculine singular *ḥewyā* 'serpent' is III-y.[42] Moreover, Bohas (1990) and Hoberman (1993) convincingly demonstrate that Syriac geminate roots such as *bzz* or *ḥww* are in fact biradical roots *bz* and *ḥw* that reduplicate either their first or second consonant (e.g. *nebbuz* 'he will loot', *bezzet* 'I looted') to fulfill all the consonantal slots of the patterns (of the templates more exactly). Consequently, the root is *ḥw* with no homorganic/identical *Cww* sequence.[43]

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[41] This is not an isolated case. For instance, *qṭūtā* 'cucumber' has also a III-y plural form, viz. *qṭayyā* (cf. also the related *maqṭyā* 'field of cucumbers') alongside a plural with suffix –*awātā*, viz. *qṭawātā*.

[42] The masculine plural *ḥwawātā* is of no help since it could be a III-w form as ʾ/ḥwaw-ātā/ or a III-y- form with further syncope of *y* as in ʾ/ḥawy-awātā/ since -*awātā* is used inter alia for III-y nouns (see note 27 on this complicated issue).

[43] This is why the other *Cww* roots (attested only by isolated nouns) are not considered here. Here they are: *gww*, *gāwwā* 'inside (of the body)', *ḥww*, *ḥāwwtā* 'abyss', *kww*, *kāwwtā* 'window'.

- finally, the third case, *šāqūtā* 'irrigation, drink' is indecisive. Its shape is that of either a feminine III-w noun or an abstract III-y noun where *y* dropped before *-ūt* (see the discussion above). On the one hand, its actual concrete meaning leads to an analysis as a III-w noun. On the other hand, from a diachronic perspective, its root is without doubt III-y[44] which supports the idea of an abstract III-y noun. As a result, the problem remains.

In summary, *Cbw*, *Cww* and *Cqw* roots are virtually non-existent. *Cpw*, *Cmw*, *Ckw* and *Cgw* roots merely do not exist. Consequently, Syriac root structure obviously forbids homorganic consonantal sequences II-labial/velar III-w.[45] From what we know about root pattern restrictions in Syriac and other Semitic languages, this limitation is unexpected. As a matter of fact, since consonants root restrictions apply more regularly in verbs than in nouns, most studies focus on verbs and omit nouns (see Vernet 2011). It follows that the limitations specific to nouns could only escape the attention of researchers who until now focus solely on verbs.

4. CONCLUSION: WHAT HAPPENED TO THE PROTO-SEMITIC II-LABIAL/VELAR III-W ROOTS IN SYRIAC?

Although this study is essentially synchronic, it is worth concluding the examination of the III-w roots with a brief diachronic observation.[46] It is often difficult to determine the

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[44] See the comparative evidence in Leslau (1987: s.v. *saqaya*).

[45] As a reviewer pointed out to me, it is possible that II-p/m/k/g–III-w roots are unattested due to chance, considering the low number of attested roots.

[46] Comparative study that encompass the other more or less contemporaneous Aramaic dialects (such as Jewish-Palestinian, Jewish-Babylonian, Mandaic, etc.) would not be possible within the limits of this paper. The first step in such a study would be to check whether II-labial III-w and II-velar III-w roots are attested in these dialects. If this were the

Proto-Semitic semi-vowel of a root from comparative data. Nonetheless, there are cases where it is possible to ascribe a Proto-Semitic final *w* with more or less certainty. Cases where Proto-Semitic III *w* is preceded by a II labial or velar are the following:[47]

Proto-Semitic	Akkadian	Arabic	Geez	Syriac
bqw		*bqw* 'to watch'		*bqy* 'to test'
gbw		*ǧbw* 'to exact (tribute)'		*gby* 'to exact (tribute)'
ḏkw	*zkw* 'to be clear, pure'	*ḏkw* 'to be bright'		*dky* 'to be pure'[48]
hǧw		*hǧw* 'to satirize, insult, scold'		*hgy* 'to muse, vocalize'
skw			*skw* 'window, planet'	*sky* 'to wait for, look for'[49]
smw	*smw*			*smy* 'blindness'

case, it would not call into question our analysis of Syriac: the existence of linguistics differences (such as phonological ones) is precisely what justifies the identification of distinct dialects and languages and we should be aware of this when evidence from one dialect is used to evaluate an analysis based on data from a different dialect.

[47] Data has been drawn mostly from Black, George and Postgate (2000), Brockelmann (1928), Kazimirki (1944) and Leslau (1987); alas, I was not able to consult Sokoloff (2010).

[48] The abstract noun *ẕākūtā*, sg. abs. *ẕākū* 'innocence' is obviously a loan from Hebrew; the genuine Aramaic root is that of the table, viz. *dky*.

[49] Cf. Targumic Aramaic *sky* 'to look out, hope', *sakwā'ā* 'watchman', *sākūtā* 'outlook-point'. Arabic *škw* ~ *šky* ~ *škk* 'to complain, complain while waiting for help' is perhaps related.

		‘blindness, to vacillate, be undecided’		
*ʾpw	ʾ ʾpw (or ʾ ʾpy) ‘to become veiled, cloudy’	ʿfw ‘to clear, conceal, cover’		ʿpy ‘to invest, take collect, wrap’
*spw	spw ‘to soak, drench’	sfw ‘to be clear, limpid (water, drinks)’		spy ‘to wash, sink’
*qbw			qbw ‘to be afflicted with dropsy, be blown up’	qby ‘to contain, collect, run together (liquids, secretions)’
*rpw	rmw ‘to slacken, become loose’	rfw ‘to calm’		rpy ‘to slacken’
*špw		sfw ‘to be fast (flying or running)’		špy ‘to smooth’

In all the attested realizations of these roots in Syriac, the final semi-vowel is always *y*, never *w*. This suggests that at a certain point in the history of Syriac or Proto-Syriac, *w* shifted to *y* after II labial and velars consonants. The question of whether the change was caused by a genuine dissimilation process or by the broader and phonetically unconditioned change III-w > III-y is nevertheless open. A historical study on the evolution of semi-vowels that would encompass the stages of Aramaic prior to Syriac could perhaps bring some elements of response. Anyway, the above historical change is exactly in line with our previous synchronic observations: the phonological drift is toward increasing the occurrences of *y* at

the expense of *w*, but final *w* may remain on the condition that it is not preceded by a homorganic medial root consonant.[50]

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[50] There is also another interesting (and to date unrecognized) related dissimilatory constraint involving final *w* in the *CvCw* nouns. The vowel preceding *w* is never the homorganic *u* or, stated differently, the *CuCw* pattern is barred from the entire lexicon (the sole exception is *ruʿtā* 'opinion', an indecisive case, see section 2.3.). The exact definition of this other restriction is beyond the scope of this article; I hope to treat it thoroughly in a future study.

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