On Proto-Semitic Deverbal Derivation*

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1. Introduction

The subject to be dealt with in the present contribution is closely connected with that of the paper presented during the first Barcelona Symposium on Comparative Semitics in November 2004. In this paper, now published as Kogan 2005, an attempt was made to outline the possibilities of reconstructing non-grammatical (or lexical) vocalism of Proto-Semitic. In spite of many difficulties, such a reconstruction was found both theoretically justified and practically achievable. The problem to be discussed below is considerably more ambiguous in its methodological premises and practical realization. It has been surprisingly rarely touched upon in scholarly literature and the two basic solutions known to me are almost diametrically opposite.

The first approach is embodied by Pelio Fronzaroli’s pioneering studies of the sixties, notably his well-known article *Sull’elemento vocalico del lessema in semitico* (1963) as well as a series of contributions to PS lexical reconstruction (*Studi sul lessico comune semitico*, 1964-1972). As repeatedly emphasized in Kogan 2005, Fronzaroli’s studies are of paramount importance for the vocalic reconstruction of primary nominal and verbal roots of Proto-Semitic. As for the derived nouns, their Proto-Semitic background does not seem to be explicitly discussed by Fronzaroli, although even a cursory look on the reconstructions proposed in *Studi* is sufficient to convince one that such a possibility was in fact envisaged by the author.

What follows is an alphabetically arranged list of reconstructed nominal derivates which I was able to glean from Fronzaroli’s articles. Reconstructions regarded by me as likely or possible (and, consequently, treated in more detail in the main part of the present contribution) are boldfaced, whereas those for some reasons considered unacceptable are briefly commented upon in notes:


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1. No evidence beyond Hbr. ʿahār (KB 35) whose structure, moreover, most probably implies gemination of *ḥ.

2. The Arb. parallel adduced for Akk. daʾmu (fem. daʾimtu) is the Perfect *dahima* (also dahu) ‘survenir à l’improviste et surprendre qn.’ (BK 1 743), hardly acceptable semantically.

3. No evidence for this reconstruction.
4. Syr. ḥekkōtā ‘scabies’ (Brock 230) and Arb. ḥikkat- ‘fricatio; scabies’ (Fr. I 410) are not easily compatible with Akk. ekketu ‘scabies’ (CAD E 69, AHw. 195), more likely < ḥakk-at- than < ḥikk-at-.

5. No evidence for this reconstruction.

6. Based on the comparison between the formative Perfect harima ‘to be illicit’ in Arabic and the Akkadian adjective arma (/armu/ ‘enclosed’, which is not self-evident either semantically or phonologically. Moreover, the verb of the second syllable of Akk. arma (armu) is apparently unknown (cf. CAD A 292).

7. No evidence for this reconstruction. Terms for wine like Arb. ḥamur- or Hbr. ḥāmūr in which it seems to be based do not exhibit any trace of an original bivocalic structure.

8. No evidence for this reconstruction.

9. No evidence for this reconstruction.

10. The evidence for this reconstruction is ambiguous. Akk. kaššu, fem. kadiššu is compared by Fronzaroli to Hbr. kādēš ‘he was sacred’ (in fact, kādēš, the e-form being attested only in the plural in pausa: kādēšā). Needless to say, kādēšā is a verbal form rather than an adjective, whose normal form in Hebrew is kādēš (as for kādēš < kadiš, it means ‘male cultic prostitute’). Sure enough, neither Gez. kaddus, nor Arb. ƙaddās-, nor Syr. ƙaddāšā (all adduced by Fronzaroli under this heading) can be said to support the reconstruction *kadiš.

11. No evidence for this reconstruction.

12. No evidence for this reconstruction: the Hebrew data (kāḇ?, ḥēb) are contradictory and at any rate are not compatible with Arb. ḥayyā- and Gez. ḥayyā. Akk. qā is not listed in modern dictionaries and the morphological structure behind this contracted form is fully uncertain.

13. No evidence for this reconstruction outside lămāl in post-Biblical Hebrew.

14. No evidence for this reconstruction outside Akk. marū, fem. marūnu.

15. The meaning of Akk. nūgu ‘joy’ is too distant from that of Hbr. nūgū ‘shining’ to allow one to postulate a reliable PS reconstruction.

16. No reliable evidence behind this reconstruction: Akk. nawru, fem. navirūtu is compared to Arb. nayīr- which, it seems, may go back to both *nawir- and *nawir-. (Fleisch 1961:129). As for Hbr. nār (likely < *nawīr-), it is a substantive rather than an adjective.

17. No evidence for the first reconstruction outside the Perfect nānu – nimtu in Arabic. As for the second one, the similarity between Arb. nawnūt- and Syr. nawnūtu is probably not sufficient for a reliable reconstruction even on the proto-Central Semitic level since Hbr. nūmā apparently reflects a different pattern.

18. The reconstruction is based on the comparison between the Perfect rayiba in Arabic and the adjective rūḏāb in Hebrew.

19. Apparently no evidence outside the Perfect raḥima in Arabic.

20. No evidence for this reconstruction.

21. No evidence for this reconstruction outside Arb. sakīr- ‘tout à fait ivre’ (BK 1 1114). The vowel of the second syllable of Akk. šakru seems to be unknown.

22. No evidence for this reconstruction outside Hbr. šāmēn.

23. As recognized by Fronzaroli (1964:50), the former reconstruction is based on Akk. šību only.

In sum, no less than 25 among Fronzaroli’s reconstructions are acceptable. This impressive collection is not to be disregarded, and Semitists are greatly indebted to Prof. Fronzaroli for his pioneering efforts in this field of research. At the same time, there are reasons to believe that this collection is to be understood as the beginning rather than the end of our way to understand the nature of the Proto-Semitic nominal derivation. First of all, Fronzaroli provided virtually no theoretical or methodological support for his reconstructions of derived nouns (thus, in sharp contrast to the well-developed theoretical premises for reconstructing primary nominal and verbal roots, discussed in much detail throughout Fronzaroli’s studies and, in my opinion, fundamentally valid up to this day). What is a derived noun? What is the source of derivation? When did the derivation take place? Which kind of comparanda are acceptable for their reconstruction and which are not? These and a few other fundamental questions are scarcely touched upon in Fronzaroli’s articles. In such a context, it is not surprising that almost 30 individual reconstructions proposed by Fronzaroli appear fully or partly unacceptable.

As far as I know, the problem of Proto-Semitic nominal derivation did not attract any serious attention until 1996 when J. T. Fox’s dissertation “Semitic Noun Patterns” became known to the specialists (published in book format in 2003). Fox’s approach to the problem is radically different from Fronzaroli’s. For Fox, a methodologically sound vocalic reconstruction presupposes a clear-cut distinction between primary (“isolated”) and derived nouns: in the former case, the original vocalism can be retrieved at least potentially; in the latter case, this is almost never possible. In Fox’s words, “the patterns of the derived nouns, as opposed to those of the isolated nouns, rarely match in enough languages for reconstruction. In other words, it is rare that we find a derived noun with a common reconstructed root, pattern, and meaning in several sufficiently distant Semitic languages. With the methodology presented here, then, these nouns cannot be reconstructed in their entirety to PS”.

At first sight, Fox’s conclusion may seem paradoxical. As he himself rightly observes, the pattern-and-root system is so typical of all classical Semitic languages that its fully developed presence on the Proto-Semitic level cannot be denied. Furthermore, “because many cognate roots are found in a variety of languages, they too may be reconstructed; and because many cognate patterns are found in widespread languages, also these may be reconstructed” (ibid. 53). Nevertheless, “the reconstructions do not fit together: root and pattern can rarely be reconstructed together in the same noun, and so entire derived nouns can rarely be reconstructed for PS” (ibid.). But why? Fox’s excellent monograph provides no answer to this question, although it is abundantly clear that his reluctance to reconstruct derived nouns for Proto-Semitic has more than one serious reason behind it.

In my opinion, such reasons can be roughly subdivided into morphological and phonological.

24. The reconstruction is based on the comparison between Akk. šarâ (šariu) ‘rich’ and the Perfect ūriya ‘to be rich’ in Arabic.
25. The evidence behind this reconstruction is uncertain, it is only Hbr. šēn-ē-hām that unambiguously points to *ṯayn- (cf. SED I No. 77),
26. No evidence for this reconstruction outside Hbr. zēvā,
27. As pointed out in SED I No. 82a, the nominal form is much more widely attested than the verbal root, therefore one cannot exclude that *šēn-ūt- is a primary noun and the verbal root is denominal.
28. This question is particularly acute, as the above analysis of Fronzaroli’s examples demonstrates. For example, what is the legitimate West Semitic comparandum for the Akkadian CaCaC-adjectives? The adjective? Or the Perfect? Or both?
29. Fox’s approach is shared by Huehnergard (2004:149), which does not prevent him from successfully tracing back to PS such common deverbal nouns as *ḏib-, *šim-, *ḏik-, *ḥark- and murr-.
The following obstacles of morphological nature deserve to be mentioned.

1. The inventories of patterns typical of particular Semitic languages are not identical. Each Semitic language tends to employ a relatively restricted number of patterns to express a few basic meanings, whereas other patterns are marginal or hardly attested. Adjectival patterns are those which are most heavily affected by this process. Thus, adjectives with a short vowel in the second syllable (*CaCVC-) are common in Akkadian and Hebrew (Huehnergard 2006:10), rare in Aramaic and Arabic and practically unattested in Ethiopian. And conversely, adjectives with a long \( \ddot{i} \) in the second syllable are ubiquitous in Aramaic, Arabic and Ethiopian, relatively rare in Hebrew and practically absent from Akkadian. Substantives are also affected by this kind of specialization, although to a more limited extent. Thus, derived substantives with the patterns *CaCC- and *CaCaC- are widespread in West Semitic (notably, in Arabic) but almost absent from Akkadian, where *CuCC- and especially *CiCC- are common. Such objective restrictions drastically reduce the number of potentially comparable derived nouns.

2. As a corollary factor, a serious danger of a diametrically opposite nature emerges: when a certain pattern is known to be very widespread and productive in a given pair of languages, it becomes rather hard to tell whether we are dealing with a derive inherited from the common ancestor of these languages or with independent developments having no value for the proto-language reconstruction. Thus, *CaCiC-adjectives being very common in both Akkadian and Hebrew, how can one be sure that, say, Akk. \( \dddot{š}l\text{mu} \), fem. \( \dddot{š}al\text{imtu} \) and Hbr. \( \dddot{š}l\text{em} ‘healthy, sound’ are to be traced to the common prototype *\( \dddot{š}l\text{imm} \)- rather than explained as unrelated derivations in each of the two languages?

3. It is not always easy to establish the way of derivation (deverbal nouns viz. denominal verbs). As convincingly demonstrated by Fox, denominal derivation using consonantal elements extracted from primary nominal roots (as illustrated by \( \dot{b}\ddot{ò}k\ddot{è}r ‘herdsman’ < \dot{b}\ddot{ò}k\ddot{è}r ‘cattle’ in Hebrew) was certainly a feature of Proto-Semitic. Accordingly, some denominal verbs may have been produced already at this early stage. The pertinent nominal forms are then to be treated as primary rather than derived. A typical controversial example of this kind is *\( \dddot{t}\text{am} \)- ‘taste’, treated as a PS derived noun in Fronzaroli 1971:607 but listed among primary (isolated) nouns in Fox 2003:77\(^{30}\).

4. Finally, dialectal variety within a given language may be an obstacle for a proper evaluation of the forms under comparison. Thus, a few adjectives have different vocalic patterns in the Assyrian and Babylonian dialects of Akkadian: Ass. \( \dddot{m}\text{ariš-} \) vs. Bab. \( \dddot{m}\text{aruṣ-} \) ‘sick’, \( \dddot{n}\text{arib-} \) vs. Bab. \( \dddot{n}\text{arub-} \) ‘moist’, Ass. \( r\ddot{āk}- \) vs. Bab. \( r\ddot{k}- \) ‘empty’, Ass. \( \dddot{s}\text{abis-} \) vs. Bab. \( \dddot{s}\text{abuṣ-} \) ‘angry’ (Kogan 2006:207-8). The origin of this variation is obscure, as are its implications for the comparison between these forms and their Semitic cognates.

Distinction between various proto-patterns may be obscured by regular or semi-regular phonological processes in particular languages which seriously hamper the reconstruction of concrete derived nouns on the Proto-Semitic level.

A paradigmatic example of this category can be found in Ethiopian Semitic. Due to the regular phonological merger of PS *\( u \) and *\( i \) into \( \ddot{\alpha} \) in these languages, a considerable number of proto-patterns became fully or partly indistinguishable. Furthermore, since the phonological difference between \( \ddot{\alpha} \) and \( \emptyset \) in Ethiopian has been seriously weakened (for the purpose of the present investigation, practically nonexistent), a few additional pattern oppositions have been lost.

Merger of original *\( k\text{atl-} \) and *\( k\text{itl-} \) is typical of Hebrew. In principle, the distinction between these morphological structures should be preserved in this language (*\( k\text{atl-} \) > \( \dddot{k}\ddot{āl} \), \( k\text{atl-o} \); *\( k\text{itl-} \) > \( \dddot{k}\ddot{āl} \), \( k\text{itl-}\ddot{o} \)), but in fact PS *\( k\text{itl-} \) often shifts to \( \dddot{k}\ddot{āl} \). The original vowel is thought to reappear when the syllable

\(^{30}\) In my opinion, the relatively wide spread of the verbal root and the rather abstract meaning of the noun speak in favor of Fronzaroli’s approach, but no certainty in this and similar cases seems to be possible.
becomes closed (Fox 2003:115), but sometimes even this is not the case (cf. Arb. riql- ‘foot’ vs. Hbr. rāqûl, suff. ragl-o). Furthermore, precisely in this position the reverse process can often be observed, namely PS *katl- shifting to ḵiṯl- (Hbr. bāʿān, suff. biṯn-o ‘belly’ vs. Arb. baṭn-). These processes represent a very serious obstacle as they affect a language which is both very rich from the lexical point of view and otherwise very conservative as far as the preservation of the PS vocalism is concerned.

Vocalic syncope in Akkadian may not look a critical obstacle since the original vowel is normally restored in certain morphological positions. However, for many relatively rare lexemes such positions are not attested. Furthermore, it is not always the original vowel that is restored (note, for example, Akk. karšû ‘belly’, st. constr. karaš in spite of the fairly reliable PS prototype *karīš-, Fox 2003:166).

Which of the two approaches to the problem – Fronzaroli’s or Fox’s – is to be preferred? The answer depends, as so often in comparative Semitics, on the quantity and the quality of relevant examples. As we have seen above, Fronzaroli’s positive approach is exemplified by a high number of convincing examples, but quite a few among his reconstructions do not appear well-founded. Fox’s negative conclusion derives from very reasonable theoretical arguments but concrete examples in their support can rarely be found on the pages of his dissertation.

In such a context, a comprehensive and systematic analysis of all evidence potentially pertinent to the problem of the Proto-Semitic deverbal derivation was thought to be of paramount importance. To draw the readers’ attention to this evidence is the main purpose of the present contribution. The data adduced below derive from a systematic perusal of the standard lexicographic tools for Akkadian, Hebrew, Syriac and Geez, subsequently confronted to each other as well as to the Classical Arabic data. With rare exceptions, Modern South Arabian evidence has not been taken into consideration in view of the well-known difficulties of the diachronic analysis of the MSA vocalism.

For each pattern, a chronological stratification has been attempted, mostly in agreement with R. Hetzron’s widely accepted pattern of classification (e. g., Hetzron 1974). A hypothetic common derivate is considered Proto-Semitic when it is present in Akkadian and at least in one West Semitic language (only bilateral Akkadian-Aramaic examples have not been included because of the high danger of borrowing or influence). Proto-West Semitic examples are those reflected in both Central and Ethiopian Semitic (here again, bilateral Ethiopian-Arabic comparisons have been generally avoided)\(^\text{31}\). Finally, Central Semitic examples are those attested in Hebrew, Arabic and possibly Aramaic (bilateral Hebrew-Aramaic and Aramaic-Arabic examples have been excluded). In each section, examples are listed in the alphabetic sequence of the PS reconstructions.

2. Possible deverbal derivates: comprehensive evidence

2.1. C₁aC₂C₃_C₄

2.1.1. PS:

Akk. zerū, OA zarḥu (CAD Z 89, AHw. 1521; OAkk. on), Hbr. zāraʾ (KB 282), JBA zāraṯ (Sok. B 421), Syr. zarḏu (Brock. 207), Arb. zarš- (Fr. II 233), Tgr. zāraʔ (LH 496), Tna. zārši (K Tna 1975) ‘seed’ > PS *darš-.

# In spite of a number of phonological irregularities (z instead of the expected d and d in Arabic and Aramaic respectively, š instead of š in Ethiopian), the morphological structure of the PS reconstruction

31. Due to phonological factors outlined above as well as to the very high degree of pattern systematization in Ethiopian, evidence coming from this branch is rarely decisive. As a result, the proto-West Semitic stratum is rather poorly represented.
seems relatively certain.

Akk. erebu, erbu ‘setting of sun’ (CAD E 258, AHw. 233; OB on), Hbr. šāriḥ ‘sunset, evening’ (KB 878), Arb. yarb- ‘coucher du soleil; le couchant, l’ouest’ (BK 2 450) > PS *ṣarḥ-,*ṣarḥ-.

# The Akkadian term is almost exclusively attested in the combination erebu šamši ‘sunset’ where the quantity of e in the second syllable cannot be ascertained. However, a short e is clearly implicit in mättam šitu šitīša ana er-bi-ša ‘the country from East to West’ in an OB letter from Mari (hardly a WS usage). Therefore, both CAD and AHw. are correct to distinguish between the substantive er(e)bu and the infinitive erēbu.

Akk. ḫabru (CAD Q 17, AHw. 888; OB on), Hbr. kābār (KB 1064), JBA kabra (Sok. B 982), Syr. kabra (Brock. 644), Arb. kâbr- (BK 2 658), Tgr. kâbr (LH 249), Tna. kābri (K Tna 978) ‘grave’ > PS *ḥab-.

Akk. mētu (CAD M 316; OA, OB on), Hbr. māwāt (KB 563), JBA mōṭa (Sok. B 651), Syr. mawtā (Brock. 378), Arb. mawt- (BK 2 1165), Gez. mot (LGz. 375), Tgr. mot (LH 135), Tna. mot (K Tna 473) ‘death’ > PS *mawt-.

Akk. parṣu ‘rite, ritual; divine authority, power, office; authoritative decision, command, decree’ (CAD P 195, AHw. 835; OAkk. on), Arb. fard- ‘précepte, loi, disposition de la loi, d’obligation divine prescrite positivement par le Coran; loi, code’ (BK 2 574) > PS *parṣ-.

# As a possible source of this admittedly adventurous reconstruction one could suggest the verbal root *prṣ-* ‘to break through, to cut, to split’ (v. concrete forms in LGz. 167), with a well-known semantic shift from ‘to break, to cut’ > ‘to decide, to order’. Arb. frḏ combines both meanings (BK 2 573) and cf. further KB 1844 under Biblical Aramaic gezērā.

Akk. ṭēmu ‘Planungsfähigkeit, Verstand, Anweisung’ (AHw. 1385), Hbr. ṭašam ‘taste’ (KB 377), JBA ūṣāmā ‘taste’ (Sok. B 510), Syr. ūṣāmā ‘gustus’ (Brock. 283), Arb. ūṣm- ‘gout, saveur; appétit’ (BK 2 84), Gez. ūṣm ‘taste, flavour’ (LGz. 583) > PS *ṭaṣm-.

# For the verbal root *ṭšm ‘to taste’, presumably lost in Akkadian but well attested almost throughout WS, v. LGz. 583.

2.1.2. PWS:

Hbr. rāḥab ‘broad space, expanse’ (KB 1212), Arb. râḥb- ‘ampleur’ (BK 1 835), Gez. râḥb ‘breadth’ (LGz. 466) > PWS *raḥb-.

Hbr. šālaš ‘limping, stumbling’ (BDB 854), Arb. ḏalš- ‘clochement’ (BK 2 138), Gez. šalš ‘abscess, wound, ulcer, sore’ (LGz. 554), Tgr. šăloš ‘wound’ (LH 633) > PWS *ṭaš-.

# For the PWS verbal root *ṭlš- ‘to limp, to be lame’ v. SED I No. 78a.

Hbr. yālād ‘boy’ (KB 412), Syr. yāldā (pl.) ‘liberi’ (Brock. 301), Arb. wald- ‘né, procréé, enfanté (BK 2 1602), Gez. wald ‘son, child, boy’ (LGz. 613), Tgr. wālād- ‘son, young man’ (LH 430) > PWS *wald-.

# A different pattern *walad- is reflected in Arb. wālād- ‘enfant, petit (d’homme ou d’animal) (BK 2 1602), Gez. wəlatt < *walad-t ‘daughter, girl’ (LGz. 613), Tgr. wālāt < *wālāt id. (LH 431).

2.1.3. PCS:

Ugr. abdu (DUL 138), Hbr. šābād (KB 774), JBA šabdā (Sok. B 839), Syr. šabdā (Brock. 504), Arb. šabd- (BK 2 150) ‘servant, slave’ > PCS *šabd- (Huehnergard 2005:190).

Hbr. hāmād ‘loveliness, beauty’ (KB 325), Arb. ħamād- ‘éloge, louange; bonté, clémence’ (BK 1 488) > PCS *ḥamd-.

Hbr. láhēm ‘bread’ (KB 526), JBA láhmā ‘food, bread’ (Sok. B 622-3), Syr. láhmā ‘panis’ (Brock.
364). Arb. laḥm- ‘viande, chair’ (BK 2 978) > PCS laḥm-.

Hbr. màgdā ‘excellence (of gifts of nature)’ (DBB 550), Jud. màgdā ‘precious ware, fine fruit’ (Ja. 726)32. Syr. màgdā ‘fructus’ (Brock. 373). Arb. màṣḍā- ‘glorie, illustraion’ (BK 2 1064) > PCS *magdā-.

Hbr. rākāb ‘group of chariots, war-chariot troop’ (KB 1233), Arb. rākb- ‘troupe de cavaliers de dix et au déla montés sur des chevaux ou sur des chameaux; cavalcade, cortège’ (BK 1 913) > PCS *rakb-.

Hbr. šēb ‘greyheadness; old age, šēbāb ‘the grey hair; advanced age’ (KB 1318), JPA šyb̄, det. šybh ‘old age, grey hair’ (Sok. 571). Syr. saybdā (pl.) ‘crines albi’ (Brock. 469), Arb. šayb- ‘canitie, cheveux blancs’ (BK 1 1294) > PCS *sayb̄(-at)-.

# Gez. šibat ‘grey hair’ (LGz. 539) and related Ethiopian forms reflect *šib-at- whereas the background of Akk. šibtu ‘grey hair’ (CAD Š 2, AHw. 1228; Mari, SB) cannot be established with certainty.

2.2. CI C₂C₃.

2.2.1. PS:

Akk. šibu ‘food-offering’ (CAD Z 105, AHw. 1525; OB on), Hbr. zābah, with suff. zibh-i ‘communal sacrifice’ (KB 262), JBA dibhā ‘sacrifice’ (Sok. B 277), Syr. debhā ‘sacrificium, victima’ (Brock. 138), Arb. dibh- ‘victimque l’on égorge’ (BK 1 763), Gez. zābhh ‘sacrifice’ (LGz. 631) > PS *ḏibh-. (Huehnergard 2004:149).

# Ugr. da-ab-ḫu ‘sacrifice, offering’ (DUL 262) may suggest that the pattern underlying Hbr. zābah is to be reconstructed with a rather than i.

Akk. zikru ‘discourse, utterance; mention; name, fame’ (CAD Z 112, AHw. 1526; OAkk. on), Hbr. zēkār ‘mention’ (KB 271), Arb. ḫikr- ‘réminiscence, souvenir; mention’ (BK 1 776), Gez. ḫokr ‘record, memorial, mention’ (LGz. 636), Tna. ḫokri ‘recollection, memory, rememberance’ (K Tna 2006) > *ḏikr- (Blau 1961:81).

Akk. ḫiṣbu ‘abundant yield, produce’ (CAD ḫ 202, AHw. 348; OB on), Arb. ḫiṣb- ‘fertilité, abondance des produits de la terre’ (BK 1 580) > PS *ḫiṣb-.

Akk. ḫitu ‘fault, harm; act of negligence; damage; sin, crime’ (CAD ḫ 210, AHw. 350; OB on), Hbr. bēḥ(.?) ‘offence, guilt’ (KB 306), JBA ḫitāb ‘sin’ (Sok. B 448), Arb. ḫit- ‘erreurr; faute commise volontairement’ (BK 1 591) > PS *ḫiṭ-.

Akk. kṣru ‘knot; contingent of soldiers; joint of the human or animal body’ (CAD K 436, AHw. 488; OAkk. on), JBA kṣṭā ‘knot, node’ (Sok. B 1012), Syr. kṣṭrā ‘vinculum, nodus, articulus’ (Brock. 662), Gez. kṣṭr ‘band, knot’ (LGz. 450) > PS *ḫiṭ-.

Akk. līḥbu ‘garment, clothing’ (CAD L 181, AHw. 551; OB), Arb. līḥs- ‘vêtement, habits’ (BK 2 959), Gez. lāḥs ‘clothes, garment, apparel’ (LGz. 305), Tgr. lāḥs ‘large garment’ (LH 38), Tna. lāḥsī ‘dress, garment’ (K Tna 97) > PS *līḥš-.

Akk. mlū ‘seasonal flooding of the rivers’33 (CAD M 69, AHw. 652; OB on), Arb. mlī- ‘ce qui remplit une mesure’ (BK 2 1142), Gez. mlū ‘fullness, that which fills’ (LGz. 342), Tgr. mlo ‘fullness’ (LH 108) > PS *mlī-.

32. Also migdā (ibid.), only migdā in JBA (Sok. B 663).

33. A number of expressions unconnected with flooding (like mlī ḫrrī ‘pride’, mlī lībbī ‘high spirits’) are attested, which justifies von Soden’s translation ‘Hochwasser; Fülle’.

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Ak. *mištu* ‘half; midpoint, center, middle’ (CAD M; 126, AHw. 661; OA, OB on), Arb. *mišl-* ‘ressemblance, image de...’ (BK 2 1061), Gez. *məšl* ‘likeness, similarity, form, figure, image, parable, proverb’ (LGz. 365), Tna. *məšli* ‘ressemblance, image’ (K Tna 384) > PS *mîl-*. 

Ak. *niklu* ‘ingenuity; trick, deception’ (CAD N; 231, AHw. 789; SB, NA, NB)34, Hbr. *nêkāl* (in *nikl-ē-hām*) ‘deceitfulness’ (KB 699), JBA *niklā* ‘deceit’ (Sok. B 751), Syr. *nekli* ‘dolus, fraud’ (Brock. 429) > PS *nîkîl-*. 

Ak. *nikrā* ‘split wood or reed’ (CAD N; 252, AHw. 792; OB), Jud. *nîkra* ‘cleft’ (Ja. 935), Syr. *nêkrâ* ‘fragmentum’ (Brock. 448), Arb. *nîkr-* ‘creux qui traverse le noyau de la datte dans sa longueur’ (BK 2 1323) > PS *nîkr-.* 

Ak. *piṭr-* ‘fissure, split; undoing; separation’ (CAD P 449, AHw. 871; OB on), Arb. *fîtr-* ‘rupture du jeûné (BK 2 611) > PS *piṭr-.* 

Ak. *sikru* ‘dam, weir; seclusion, cloistering’ (CAD S 259, AHw. 1043; OB on), Arb. *ṣikr-* ‘digue; endiguement’ (BK 1 1113) > PS *ṣîkîr-.* 

Ak. *šîrpu* ‘red dyed wool (or fabric); colored spot’ (CAD S; 208, AHw. 1092; OB on), Arb. *šîr-* ‘espèce de couleur rouge avec laquelle on teint les courroies des chaussures’ (BK 1 1333) > PS *ṣîr-.* 

Ak. *šīkl* ‘shekel (a measure of weight)’ (CAD S; 96, AHw. 1248; OAkk. on), Hbr. *šīkāl*, pl. constr. *šīkāl-* ‘weight, weightiness, a specific weight, a shekel’ (KB 1643), JBA *tīklā* ‘weight, shekel’ (Sok. B 1206), Syr. *tekli* ‘onus’ (Brock. 831), Arb. *ṭîkl-* ‘fardeau, charge, tout ce qui est pesant; poids’ (BK 1 230) > PS *ṭîklî-.* (Huehnergard 2004:12). 

Ak. *wīldu* ‘offspring, progeny’ (CAD I 71, AHw. 1496; OB on), Arb. *wîld-* ‘né, procréé, enfanté’ (BK 2 1602) > PS *wîld-*. 

### 2.2.2. PWS:

Hbr. *ḥērām* ‘ban, what is banned’ (KB 354), JBA *hirmā* ‘ban’ (Sok. B 459), Syr. *ḥerma* ‘interdictio, detestatio’ (Brock. 257), Arb. *hirm-* ‘action défendue, illicite’ (BK 1 414), Gez. *ḥorm* ‘forbidden thing’ (LGz. 242), Tna. *ḥormi* ‘illicit, forbidden or prohibited thing’ (K Tna 185) > PWS *ḥîrm-.* 

Hbr. *ḥāpîl, du. kipl-ayin* ‘doubling; the double’ (KB 493), JPA *kypl’h* ‘double’ (Sok. 266), Arb. *kîfl-* ‘le double; part, portion, lot’ (BK 2 916), Gez. *kafl* ‘part, portion, share, lot’ (LGz. 276), Tna. *kaflî* ‘portion, share, part’ (K Tna 1691), Amh. *kafl* ‘part, room’ (K 1460) > PWS *kîpl-.* 

Hbr. *sēṭîr* ‘covering, protection, secrecy’ (KB 772), JBA *sîtrā* ‘secrecy’ (Sok. B 1033), Syr. *ṣetrâ* ‘secretum’ (Brock. 502), Arb. *sîtr-* ‘voile, rideau; abri, protection’ (BK 1 1049), Tgr. *ṣator* ‘the hiding’ (LH 186), Tna. *satri* ‘mystery’ (K Tna 712), Sel. *ṣator* ‘hidden place’ (LGur. 566) > PWS *ṣîr-.* 


### 2.2.3. PCS:

Hbr. *šēḇâr* ‘the one of the two opposing sides; side, edge; bank’ (KB 781), JBA *šîbrā* ‘side, bank’ (Sok. B 851), Syr. *šebār* ‘transitus, ripa ulterior’ (Brock. 508), Arb. *šîbr-* ‘rive, bord, rivage’ (BK 2 153) > PCS *šîbr-.* 

Hbr. *ḥēpāš* ‘joy, delight; wish; matter, business’ (KB 340), Arb. *hiḏî-* ‘attention, vigilance; soin’ (BK 1 460) > PCS *ḥîpî-.* 

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34. Better attested is *nikitu* ‘ingenuity, skillful work; trick, cunning, deception’ (CAD N; 220, AHw. 788).
ON PROTO-SEMITIC DEVERBAL DERIVATION

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Hbr. šēpāl ‘lowness, humiliation’ (KB 1632), Syr. šeplā ‘humiatiio’ (Brock. 795), Ar. sīl- ‘abaissement, humilié’ (BK 1 1102) > PCS *šipl-

2.3. CīCīCī-at-

2.3.1. PWS:

Hbr. kīnāt ‘zeal’ (KB 1110), Jud. kīnātā ‘jealousy, envy, passion’ (Ja. 1388), Syr. kene(ʔ)tā ‘studium’ (Brock. 675), Gez. kūnāt ‘jealousy’ (LGz. 433)35, Tgr. kūnāt ‘jealousy, envy’ (LH 252), Har. kīnāt ‘envy’ (LHar. 127) > PWS *kīn-at-.

2.4. CīuCīCī-

2.4.1. PS:

Hbr. ṭūārk ‘clearness; purifying’ (KB 370), Arb. ṭuhr- ‘état de pureté d’une femme’ (BK 1 114), Gez. ṭohr ‘purity, chastity’ (LGz. 589) > PWS *ṭuhr-. 

35. The variant kūnāt is qualified as rare in LLA 445.

2.4.2. PWS:

Hbr. ṭūhar ‘clearness; purifying’ (KB 370), Arb. ṭuhr- ‘état de pureté d’une femme’ (BK 1 114), Gez. ṭohr ‘purity, chastity’ (LGz. 589) > PWS *ṭuhr-.

2.4.3. PCS:

Hbr. ṣūmāk ‘depth’ (KB 849), JBA ṣumkā ‘depth’ (Sok. B 847), Syr. ṣumkā ‘profunditas, altitudo’ (Brock. 531), Arb. ṣumk- ‘profondeur (d’un puits etc.)’ (BK 2 369) > PCS *ṣumk-36.

Hbr. ṣōnāg ‘pleasure’ (KB 851), Arb. ṣunṣ- ‘agaceries, oeilades, minauderies’ (BK 2 510) > PCS *ṣun-. 

36. This is one of the very few common derivatives admitted as reconstructible by Fox (2003:62).
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Hbr. ʼhōdāš ‘new moon’ (KB 294), Arb. ḥud-, ‘tout événement nouveau, récent’ (BK 1 390) > PCS *ḫud-.  
Hbr. ḥōsūr ‘want’ (KB 338), Arb. ḥusr- ‘perte, dommage qu’on éprouve’ (BK 1 571) > PCS *ḫusr-.  
Hbr. ʼkōdāš ‘something holy’ (KB 1076), JBA kudās ‘holiness’ (Sok. B 989), Syr. kūdsā ‘sacrum sanctitas’ (Brock. 649), Arb. kuds- ‘pureté, sainteté’ (BK 2 687) > PCS *kūdš-.  
# Gez. k'ods ‘sanctuary, Jerusalem’ (LGz. 423) must be borrowed from Arabic as suggested by Leslau.

Hbr. nōṣam ‘kindness’ (KB 706), Arb. nuṣm- ‘vie mene dans l’abondance et les plaisirs; prospérité, bonheur; plaisir’ (BK 2,1298) > PCS *nu ʿın-.  
Hbr. yōšūr ‘straightness, honesty’ (KB 450), Arb. yusr- ‘facilité de caractère, douceur’ (BK 2 1628) > PCS *yušr-.  

2.5. C₁uC₂C₃-at-

2.5.1. PWS:
Hbr. kōrḥ ‘bald patch’ (KB 1141), JPA kwrḥh, det. ḵwrḥṭ ‘baldness’ (Sok. 484), Syr. kurḥṭā ‘calvitudinum’ (Brock. 694), Arb. kurḥat-‘petite tache blanche au front d’un cheval’ (BK 2 707), Gez. ḵwṛḥat ‘clipping, shaving, tonsure’ (LGz. 441) > PWS *ḵurḥat-.  

2.5.2. PCS:
Hbr. șobḥa ‘satiation’ (KB 1304), Arb. șubḥat- ‘ce qui suffit pour rassasier qn. en une seule fois, morceau suffisant’ (BK 1 1185) > PCS *ṣubḥ-.  

2.6. C₁aC₂aC₃-

2.6.1. PS:
Akk. katnu, fem. ḵatantu ‘thin, fine, narrow’ (CAD Q 173, AHw. 908; OAkk. on), Hbr. kāṭān ‘small’ (KB 1092) > PS *ḵāṭan-.  
Akk. wakru, fem. waṣkurutu ‘rare, in short supply, scarce’ (CAD A₂ 207, AHw. 1461; OAkk. on), Hbr. yāḵār ‘scarce, precious, valuable’ (KB 432) > PS *waḵar-.  
Akk. ḫēṣaru ‘normal, regular, straight’ (CAD I 224, 392; OAkk. on), Hbr. yāšūr ‘straight; level, smooth; proper, right’ (KB 450) > PS *yašar-.  

2.6.2a. PWS (substantives):
Hbr. rāḥāb ‘hunger’ (KB 1257), Arb. raḥāb- ‘désir, penchant irrésistible pour quelque chose’ (BK 1 887), Gez. raḥāb ‘hunger, famine’ (LGz. 468), Tgr. rāḥab ‘hunger’ (LH 147), Tna. rāḥab id. (K Tna. 544), Amh. rab id. (K 392), Har. raḥab id. (LHar 134) > PWS *raḥab-.  

2.6.2b. PWS (adjectives):
Ugr. la-ba-nu ‘white’ (DUL 490), Pho. labon (in the plant name abilabon, Friedrich-Röllig-Guzzo 1999:40), Hbr. lābān ‘white’ (KB 517), Arb. laban- ‘lait, lait aigre’ (BK 2 962), Mhr. owbōn ‘white’ (JM 251), Hrs. ḥlōbōn id. (JH 83), Jib. lūm id. (JJ 159), Soq. lībēn id. (LS 228) > PWS *laban-.  
# As pointed out in Bulakh 2004:270, the semantic shift from ‘white’ to ‘milk’ in Arabic is likely.
Reconstruction of the proto-MSA adjective ‘white’ as *laban- appears justified (for Soq. libhon < *laban- cf., e.g., dikhehn ‘beard’ < *da'akan-), yet not entirely certain.

2.6.3a. PCS (substantives):

Hbr. šanāl ‘trouble, labour, toil’, JBA šamlā ‘work, income’ (Sok. B 870), Syr. šamlā ‘labor, fructus laboris’ (Brock. 530), Arb. šamal- ‘ouvrage, travail, occupation’ (BK 2 370) > PCS *šamal-37.

Hbr. māšāl ‘saying, proverb’ (KB 648), JBA matlā ‘parable’ (Sok. B 721), Syr. matlā ‘simile, parabola’ (Brock. 409), Arb. magal- ‘semblable à un autre, pareil, pair; ressemblance, image, similitude; allégorie, parabole, proverbe’ (BK 2 1061) > PCS *magal-.

# Tgr. māṣāl ‘proverb, parable’ (LH 118) is likely an Arabism.

Hbr. yāgār ‘product of labour’ (KB 386), Arb. waqār ‘douleur, mal qu’on éprouve’ (BK 2 1492) > PCS *waraq-.

2.6.3b. PCS (adjectives):

Hbr. ḥadār ‘new, fresh’ (KB 294), JBA ḥadat, det. ḥadār ‘new’ (Sok. B 433), Syr. ḥattā ‘novus’ (Brock. 217), Arb. ḥadat- ‘jeune homme; nouveau, jeune’ (BK 1 390) > PCS *ḥadat-38.

# Akk. eššu does not yield any decisive evidence about the thematic vowel: as is well known, the usual feminine form of this adjective is eššetu. The very few e-DI-IŠ-tu(m) forms listed in CAD E 374, AHw. 258, 1555 can perhaps be read as e-de-ešš-tu(m), cf. Fox 2003:170.

Hbr. ḥakām ‘skilful; clever, experienced; wise’ (KB 314)39, Arb. ḥakam- ‘juge, arbitre; vieillard’ (BK 1 471) > PCS *ḥakam-.

2.7. C₁aC₂aC₃-at-

2.7.1. PWS:

Hbr. bārkā ‘blessing’ (KB 161), Arb. barakat- ‘bénédiction de Dieu; félicité, bonheur’ (BK 2 117), Gez. barakat ‘blessing, benediction’ (LGz. 105) > PWS *barak-at-.

# A chain of culturally determined borrowings cannot be excluded. In Aramaic the original word-structure has been altered, cf. JPA bārkotā (Sok. 114), Syr. burkotā (Brock. 96).

2.7.2. PCS:

Hbr. nošāmā ‘movement of air; breath, breath of life; living being’ (KB 730), Syr. nošamātā ‘spiritus, anima’ (Brock. 451), Arb. nasam- ‘léger souffle du vent; souffle de la vie, esprits vitaux; homme, genre humain’, nasamat- ‘respiration; souffle de la vie; asthme’ (BK 2 1253) > PCS *našam-at-.

37. For this comparison cf. Fox 2003:160, 164.

38. For this comparison cf. Fox 2003:164, 170. It is uncertain whether -e- in the st. abs. ḥdet in Syriac indeed points to an original *i as one may infer from Fox 2003:170 (-e- is by far the most frequent epenthetic vowel for all original *CVC(V)C-patterns in Syriac, Nöldeke 1904:63). Admittedly, Fox lists Syr. ḥattā under both *C₁aC₂aC₃- and *C₁aC₃C₂-.

2.8. **CₐCᵢC₃**

2.8.1. **PS:**

Akk. **bištu** ‘malodorous; of bad quality; evil’ (CAD B 270, AHw. 131; Bogazköy, SB, NB, LB), JBA **biš**, det. **bišša** ‘bad, evil, foul’ (Sok. B 206), Arbr. **bašis**- ‘accablé de malheurs, misérable’ (BK 1 80) > **PS** *baḥš*-.

Akk. **baštu**, fem. **bašiltu** ‘ripe, mature (fruit and animals); cooked, prepared, boiled’ (CAD B 140, AHw. 111; MB on), Hbr. **baššel** ‘boiled’ (KB 164), Jud. **bašša** ‘boiled’ (Ja. 199) > **PS** *bašil*-

Akk. **emšu**, fem. **emištu** ‘sour’ (CAD E 152, AHw. 215; OB on), Hbr. **harm** ‘leavened’ (KB 329) > **PS** *ḥamî*-.

Akk. **malû**, fem. **malûtu** ‘ripe, mature (fruit and animals); cooked, prepared, boiled’ (CAD B 140, AHw. 111; MB on), Hbr. **malî** ‘sick, suffering’ (Ja. 845), Syr. **malî** - (BK 2 1143) ‘full’ > **PS** *mali*-

Akk. **marû**, fem. **marût** ‘sick, diseased; difficult, inaccessible, severe’ (CAD M 2 129; OAkk. on), Jud. **məra** ‘sick, suffering’ (Ja. 845), Syr. **məra** ‘sick, suffering’ (Brock. 456) > **PS** *mari*-

Akk. **salmû**, fem. **salimtu** ‘healthy, sound’ (CAD S 2 126, AHw. 1149; OA, OB on), Hbr. **šalîm** ‘intact, complete’ (BK 1538), JBA šalîm ‘complete’ (Sok. B 1150), Syr. šolem, det. šalmâ ‘sanus, integer’ (Brock. 782) > **PS** *šalim*-

Akk. **šaplu**, fem. **šapiltu** ‘low, lower, nether; lowly person’ (CAD S 2 176, AHw. 1174; OAKkk. on), Hbr. šepël ‘low’ (KB 1632), Syr. šepel ‘humiliatus, humilis’ (Brock. 795), Arbr. saflî- ‘vil, bas, ignoble’ (BK 1 1102) > **PS** *šapil*-

Akk. **šēbu**, fem. **šebîtu** ‘sated’ (CAD S 2 251; OB on) 43, Hbr. šābîta‘satiated, satisfied’ (KB 1304), Syr. sabît ‘satiatus’ (Brock. 456) > **PCS** *šabi*-

Akk. **šalma** ‘black (as a natural color); dark (as a morbid or otherwise abnormal discoloration)’ (CAD S 77, AHw. 1078; OAKkk. on), Arbr. ūlîm- ‘sombre, obscur’ (BK 2 141) > **PS** *šalim*-

Akk. **šamû**, fem. **šamîtu** (CAD S 95, AHw. 1081; OB on), Hbr. šāmî harassment’ (KB 1032), Arbr. ūmî- (BK 2 142) ‘thirsty’ > **PS** *šami*-

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40. Scarcely attested, likely a Hebraism.

41. This is one of the very few PS derivatives admitted in Fox 2003 (e.g., “an adjective such as *kabid* ‘heavy’, which exists in a number of Semitic languages and so is reconstructed for PS” on p. 61 of that study). As far as I can see, languages presumably preserving this hypothetic PS adjective are Akkadian and Hebrew only. However, there are some reasons to suppose that what Fox actually means is the substantive *kabid-‘liver’ (note that Hbr. kabîd is translated as ‘heavy, liver’ on p. 43 of Fox’s study whereas *kabid-‘liver’ is missing from the list of isolated nouns on pp. 72-87). In my opinion, this automatic identification of the well-reconstructible and virtually pan-Semitic substantive *kabid- ‘liver’ with the rather poorly attested adjective *kabid- ‘heavy’ is methodologically unwarranted.

42. In Bab. marûšu.

43. Interpreted as šēbu, šebîtu in AHw. 1207.
2.8.2. PCS:
Hbr. יָשֶׁם ‘guilty’ (KB 96), Arb. ḫajim- ‘criminel, coupable’ (BK 2 12) > PCS *ḫajim-.
Hbr. יָנוּל ‘burdened with grief; workman, worker’ (KB 845), Arb. ẓamil- ‘qui travaille, qui fait un ouvrage’ (BK 2 371) > PCS *ẓamil-.
Hbr. דָּוָא ‘faint, sick’ (KB 216), Arb. dawi‘ ‘malade’ (BK 1 756) > PCS *dawiy-.
Hbr. חָרֵב ‘waste, desolate’ (KB 349), Arb. ḥarib- ‘dépeuplé, dévasté, ruiné’ (BK 1 552) > PCS *ḥarib-.
Hbr. יֹאָב ‘weary, striving, troubled’ (KB 386), Arb. wabi‘ ‘qui éprouve une douleur, des douleurs’ (BK 2 1492) > PCS *wabi‘-.
Hbr. יָשֶׁס ‘asleep’ (KB 448), Arb. wasin- ‘qui est profondément endormi’ (BK 2 1539) > PCS *wašin-.
Hbr. yabis- ‘dried, dry’ (KB 384), Arb. yabi‘ ‘qui a séché, devenu sec’ (BK 2 1622) > PCS *yabi‘-.

2.9.  C_{aC_{3}C_{2}}C_{3}-at-

2.9.1. PS:
Akk. šapiltu ‘lower or inner part (of objects, parts of the body)’ (CAD S, 451, AHw. 1172; OA, OB n), Hbr. šopēlā ‘the low country on the western edge of the hills of Judaea’ (KB 1633), Arb. safilat- ‘pieds (ne se dit qu’en parlant de chameau)’ (BK 1 1102) > PS *šapil-at-.

2.10. C_{aC_{2}uC_{3}}-

2.10.1. PS:
Akk. kerbu, fem. kerubtu ‘near, close, at hand’ (CAD Q 214, AHw. 914; OA, OB on), Hbr. kārōb ‘nearby, close’ (KB 1139) > PS *kārub-.
Akk. matku, fem. matkūtu ‘sweet’ (CAD M, 413, AHw. 633; OAKk. on), Hbr. māṯōk id. (KB 656) > PS *matku-.
Akk. ṭābu, fem. ṭā bütu ‘moist, fresh, live’ (CAD R 218, AHw. 963; OB on), Hbr. rāṭōb ‘in sap’ (KB 1223) > PS *ṭārub-.
Akk. warku, fem. waraktu ‘yellow, green’ (CAD A, 300, AHw. 1470; OA, OB on), Hbr. yāröḵ ‘greenery’ (KB 437), pB. ‘light-colored, yellow or greenish’ (Ja. 595) > PS *waruk-.

2.11.  C_{aC_{2}C_{2}}-

2.11.1. PS:
Akk. dakkū ‘small (child); small’ (CAD D 107, AHw. 163; OAKk. on), Hbr. ḏaḵ ‘scarcé, fine, small’ (KB 229), JBA ḏakkā ‘pupil’ (Sok. B 348), Gez. ḏakk ‘little ones, children, sons’ (LGz. 140), Tna. ākkī ‘children’ (K Tna 2102) > PS *daḵk-.
Akk. eddu ‘pointed’ (CAD E 23, AHw. 185; OB on), Hbr. ḫadd ‘sharp’ (KB 291) > PS *ḥadd-.
Akk. emmu ‘hot’ (CAD E 150, AHw. 214; OB on), Hbr. ḫām, pl. ḫamm-im ‘hot’ (KB 325) > PS *ḥamm-.
Akk. kullu ‘light; of low standing; small, few, young’ (CAD Q 62, AHw. 894; OB), Hbr. kal ‘light, nimble, rapid’ (KB 1100) > PS *kall-.
Akk. *marru* ‘bitter’ (CAD M1 286, AHw. 612; OB Mari on), Hbr. *mar* id. (KB 629) > PS *marr*.

Akk. *rakk* ‘thin, light, flat’ (CAD R 171, AHw. 958; OA, OB on), Hbr. *rak* ‘thin, gaunt’ (KB 1286), Arb. *rakk* ‘mince, fin’ (BK 1 903) > PS *rakk*.

Akk. *sarru* ‘mock, false; criminal, fraudulent’ (CAD S 180, 10 30; OAkk. on), Hbr. *sar* ‘ill-humoured’ (KB 768) > PS *sarr*.

2.11.2. PCS:
Hbr. *bar* ‘pure’ (KB 153), Arb. *barr* ‘bienfaisant; libéral, généreux; vrai; pieux’ (BK 1 103) > PCS *barr*.

2.12. *C4a C2 C2-at-

2.12.1. PS:
Akk. *sarrtu*, pl. *sarrtu* ‘lie, falsehood, treachery; fraud, misdeed, criminal act’ (CAD S 186, AHw. 769; OB on), Hbr. *săr* ‘obstinacy; falsehood’ (KB 769) > PS *sarr*.

Akk. *sallatu* ‘plunder, booty, captives; capture, captivity, plundering’ (CAD S1 248, AHw. 1148; OAKk. on), Arb. *sallat* ‘vol, larcin, soustraction faite sans bruit’ (BK 1 1117) > PS *sallat*.

2.13. *C4 C2  C2-at-

2.13.1. PS:
Akk. *gizzatu* ‘yield of wool or hair’ (CAD G 116, AHw. 295; NB), *gizzu* ‘shearing, shearings’ (ibid.; OB), Hbr. *gēz* ‘fleece’ (KB 185), *gizzā* ‘fleece, wool’ (ibid. 186), Jud. *gizzā*, *gizzotā* ‘fleece’ (Ja. 237), Syr. *gezzā* ‘tonsura’, *gezzotā* ‘vellus’ (Brock. 111), Arb. *jizzat* ‘tonte, laine provenant d’une tonte’ (BK 1 286) > PS *gizzat*.

Akk. *kippatu* ‘loop, hoop, tendril; circle, circumstance of a circle; circumference’ (CAD K 397, AHw. 481; OB on), Hbr. *pB. kippā* ‘arch, doorway; bow; skull-cap’ (Ja. 635), Syr. *keppotā* ‘fornix, arcus’ (Brock. 339), Arb. *kiffat* ‘tout object rond; rond en bois d’un tambour de basque; cavité, orbite; filet (de chasseur)’ (BK 2 910) > PS *kippat*.

Akk. *middatu* ‘measure (of capacity, time); measuring rod’ (CAD M2 46, AHw. 650; OB on), Hbr. *middā* ‘measured length, measurement’ (KB 547), Jud. *middotā* ‘dimension, measure’ (Ja. 733) > PS *middat*.

# A different pattern in Arb. *muddat* ‘longueur, étendue’ (BK 2 1076) from which Tgr. *muddät* ‘space of time, period’ (LH 141) is likely borrowed.

2.14. *C4 C2 C2-

2.14.1. PS:
Akk. *ummu* ‘Hitze; Fieber’ (AHw. 1417; OB on), Hbr. *ḥōm* ‘warmth’ (KB 325), JBA *hummā* ‘heat’ (Sok. B 439), Syr. *ḥummā* ‘calor, aestus’ (Brock. 238), Arb. *humm* ‘chaleur brûlante, excessive’ (BK 1 486) > PS *ḥummat*.

2.14.2. PWS:
Hbr. *kōr* ‘cold’ (KB 1128), JBA *kurrā* ‘cold, frost’ (Sok. B 1002), Syr. *kurrā* (Brock. 689), Arb. *kurr* ‘froid, fraîcheur’ (BK 2 700), Gez. *kərr* ‘cold, coldness’ (LGz. 443), Tna. *kərr* id. (K Tna 929) > PWS *kurr*.
2.14.3. PCS:

Hbr. ḥōl ‘profane’ (KB 315), JBA ḥullā ‘weekday, unconsecrated food’ (Sok. B 438), Syr. ḥullā ‘profanum’ (Brock. 231), Arb. ḥull- ‘état habituel de la vie, opposé à ṭḥrām’ (BK 1 473) > PCS *ḥull-. Hbr. rūb ‘quantity, wealth’ (KB 1174), Jud. rubbā ‘multitude, larger portion, majority’ (Ja. 1455), Arb. rubb-a ‘souvent, il arrive souvent que...’ (BK 1 799) > PCS *rubb-.

2.15. CᵢuC₂C₂-at-

2.15.1. PWS:

Hbr. mōrā ‘bitterness’ (KB 633), Arb. murrat- ‘amertume’ (BK 2 1084), Gez. mōrrat ‘bitterness’ (LGz. 360), Tna. mōrrāt id. (K Tna 362) > PWS *murr-at- (Huehnergard 2004:149).

# Note Akk. murr ‘bitter taste’ (CAD M 2 222, AHw. 676; SB) with no fem. marker.

2.16. CᵢūC₃-at-

2.16.1. PS:

Akk. būṣtu ‘embarrassment’ (CAD B 351, AHw. 143; OA, OB on), Hbr. būšā ‘shame’ (KB 117), būšāt id. (ibid. 165) > PS *būṭ-at-.

2.17. CᵢāC₃-

2.17.1. PS:

Akk. ṭābu ‘schön, gut’ (AHw. 1378; OAKk. on), Hbr. ṭōb ‘good’ (KB 370), Biblical Aramaic ẗāb (ibid. 1882, with references to other Arm.) > PS *ṭāb-.

2.18. CᵢaCᵢᵢCᵢ₃-

2.18.1. PS:

Akk. ḥasiru ‘prisoner of war, captive foreigner used as worker’ (CAD A 331, AHw. 74; OB on), Hbr. ḥāisır ‘prisoner’ (KB 73), Arb. ḥasır- ‘prisonnier de guerre, captif’ (BK 1 32) > PS *ḥasr-.

# Gemination in Syr. ḥassirā ‘captivus’ (Brock. 37) may be due to a secondary accommodation to the pattern CᵢaCᵢᵢCᵢ₃-, extremely common in Aramaic.

Akk. dalīlu ‘praise, fame, glory’ (CAD D 50, AHw. 154; OB on), Arb. dalīl- ‘indice, signe; preuve, argument’ (BK 1 721) > PS *dalīl-.

2.18.2. PCS:

Hbr. nāʿīm ‘pleasant, lovely, delightful; happiness’ (KB 705), Arb. nāʿīm- ‘qui jouit de la prospérité, d’une vie de délices’ (BK 2 1299) > PCS *na ʿīm-. Hbr. punt ‘thread’ (KB 990), Arb. fatīl- ‘corde mince faite des fibres du palmier’ (BK 2 538) > PCS *patīl-.

Hbr. šāyir ‘the smaller one, the younger one, little’ (KB 1041), Syr. šoʿīrā ‘contemptus, turpis’ (Brock. 634), Arb. savir- ‘petit, chétif’ (BK 1 1342) > PCS *ṣavīr-.

Hbr. yādīd ‘beloved’ (KB 390), Arb. wadīd- ‘ami, amant, amoureux’ (BK 2 1506) > PCS *wadīl-.

# Note Syr. yaddīdā ‘amatus’ (Brock. 296), with gemination possibly due to adaptation to the
widespread $C_1aC_2aC_3$ pattern of adjectives.

Hbr. $yāhîd$ ‘only, lonely, deserted’ (KB 406), JPA $yhyd$ ‘only, unusual’ (Sok. 238), Syr. $yîhîdā$ ‘unicus, solus’ (Brock. 300), Arb. $wâhîd$ ‘unique, séparé des autres’ (BK 2 1493) > PCS *$wâhîd$-.

Hbr. $yâlîd$ ‘son’, $yâlîd$ bâvit ‘slave born in the house(hold)’ (KB 413), Arb. $wâlîd$ ‘né; enfant; esclave né à la maison’ (BK 2 1603) > PCS *$wâlîd$-.

2.19. $C_1aC_2aC_3$

2.19.1. PS:
Akk. $šâluμu$ ‘health, well-being; welfare of a country, a city’ (CAD Š, 206; in AHw. 1143 mostly unseparated from the infinitive), Hbr. $šâliμm$ ‘prosperity, success; intactness; welfare, state of health’ (KB 1508), JBA $šolîμm$, det. $šolîμmā$ ‘peace, well-being’ (Sok. B 1151), Syr. $šolîμmā$ ‘pax, prosperitas, valetudo’ (Brock. 782), Arb. $salîμm$ ‘paix; état de celui qui est sain et sauf; sécurité; bon état, état de santé (BK 1 1131), Gez. $salîμm$ ‘peace, salutation, safety’ (LGz. 499) > PS *$šalîμm$-.

# Neo-Ethiopian forms listed in LGur. 543 may be borrowed from Arabic.

2.20. $C_1aC_2aC_3$-at-

2.20.1. PCS:
Hbr. $mârârâ$ ‘gall-bladder, poison’ (KB 639), Syr. $mârârotâ$ ‘fel’ (Brock. 400), Arb. $mârârat$- ‘vésicule qui contient le fiel’ (BK 2 1084) > PCS *$mârârat$-.

2.21. $C_1iC_2aC_3$

2.21.1. PS:
Akk. $ibâμru$ ‘a mark of discoloration on the skin’ (CAD I 1, AHw. 363; SB), Arb. $ḥîbâμr$ ‘marque, signe, trace de qch.’ (BK 1 366) > PS *$ḥîbâμr$-.

2.21.2. PCS:
Hbr. $mâlā$? ‘that which fills’ (KB 584), Jud. $mâlā$? ‘fulness’ (Ja. 787), Syr. $mâlāʔa$ ‘plenitudo’ (Brock. 388), Arb. $mîlâʔ$ ‘quantité nécessaire pour remplir qch.’ (BK 2 1142) > PCS *$mîlâʔ$-.

# Note Tna. $mâl$a ‘fullness, wholeness, entirety’ (K Tna 330).

2.22. $C_1iC_2aC_3$-at-

2.22.1. PCS:
Hbr. $ḥâţgârâ$ ‘payment’ (KB 10), Arb. $ḥîţârat$- ‘récompense; salaire; prix de louage; gages d’un domestique’ (BK 1 13) > PCS *$ḥîţârat$-.

Hbr. $ḥâbôdâ$ ‘work, service, service of worship’ (KB 776), Arb. $ḥîbâdat$- ‘servitude, esclavage; obéissance; religion, culte’ (BK 2 151) > PCS *$ḥîbâdat$-.

Hbr. $bâsârâ$ ‘tidings’ (KB 164), Arb. $bîsârâ$- ‘nouvelle vraie, bonne ou mauvaise’ (BK 1 129) > PCS *$bîsârâ$-.

# A culturally-determined adoption of the Arb. root *bšr* to the Hebrew nominal pattern cannot be excluded, although it is noteworthy that no similar formation seems to be present in Aramaic (where the root as such is scarcely attested).
2.23. \( C_1 \mu C_2 \tilde{a} C_3 \)

2.23.1a. PS (substantives):

Akk. su\(\tilde{a}\)lu ‘phlegm; cough with phlegm’ (CAD S 340, AHw. 1052; MB, SB), Syr. šo\(\tilde{a}\)lā ‘tussis’ (Brock. 793), Arb. su\(\tilde{a}\)l ‘toux’ (BK 1 1093), Tna. so\(\tilde{a}\)l ‘tosse’ (Bassano 201)\(^{44}\) > PS *\(\tilde{s}u\tilde{a}\)l-.

# Gez. sa\(\tilde{a}\)l (LGz. 481), Tgr. s\(\tilde{a}\)l id. (LH 194) and Tna. s\(\tilde{a}\)l id. (K Tna 761) may ultimately go back to the same pattern with *u > a before ū.

2.23.1b. PS (adjectives):

Akk. du\(\tilde{a}\)ḳu ‘very small’ (CAD D 190, AHw. 177; lexical lists), Arb. du\(\tilde{a}\)ḳ ‘menu, fin, subtil, mince’ (BK 1 715) > PS *du\(\tilde{a}\)ḳ-

Akk. s\(\tilde{u}\)ḫru ‘male child, adolescent’ (CAD S\(\tilde{u}\) 231, AHw. 1109; OA, OB on), Arb. s\(\tilde{u}\)ḏr ‘petit, chétif’ (BK 1 1342) > PS *\(\tilde{s}u\tilde{a}\r-

2.23.2. PWS:

Syr. \(\tilde{s}u\tilde{t}\tilde{a}\)‰, \(\tilde{s}u\tilde{t}\tilde{a}\)‰ ‘sternutamentum’ (Brock. 521), Arb. \(\tilde{s}u\tilde{t}\tilde{a}\)‰ ‘éternument’ (BK 2 285), Gez. \(\tilde{s}u\tilde{t}\tilde{a}\‰ ‘sneezing’ (LGz. 77) > PWS *\(\tilde{s}u\tilde{a}\tilde{t}\‰.-

2.24. \( C_2 \mu C_3 \tilde{a} C_3 \)

2.24.1. PS:

Akk. \(\tilde{u}\)b\(\tilde{u}\)ru ‘din’ (CAD \(\tilde{u}\) 220, AHw. 352; SB), Arb. \(\tilde{u}\)b\(\tilde{u}\)r ‘joie, accès de gaité’ (BK 1 366) > PS *\(\tilde{u}\)b\(\tilde{u}\)r-.

Akk. l\(\tilde{u}\)b\(\tilde{s}\)u ‘clothing, wardrobe’ (CAD L 236, AHw. 561; OA, OB on), Hbr. lōbōš ‘garment’ (KB 516), JBA lōbūš ‘garment, husk’ (Sok. B 616), Syr. lōbūša ‘vestis’ (Brock. 358) > PS *lōbūš-.

# Arb. lōbūs- ‘vêtement, habits’ (BK 2 960) reflects a different pattern. It is tempting to suppose that Arb. lōbūs-, attested as a broken plural of libš- (BK 2 959), is an adaptation of *lōbūš- as an early collective (as apparently envisaged in KB 516).

Akk. rūkūbû ‘vehicle (boat, chariot); conveyance, riding’ (CAD R 409, AHw. 994; OB on), Hbr. rōkūb ‘vehicle, chariot’ (KB 1236)\(^{45}\), Hbr. pB. ‘coach, chariot’ (Ja. 1479), Jud. rōkūbā id. (ibid.), Syr. rōkūbā ‘animal ad equitandum; currus, vehiculum; equitatio’ (Brock. 730), Arb. rūkūb- (attested as the masdar of rkb ‘monter (une monture), chevaucher’, BK 1 912) > PS *rūkūb-.

2.25. \( C_1 \mu C_2 \tilde{a} C_3 \)at-

2.25.1. PCS:

Hbr. gōbūrā ‘strength’ (KB 172), JPA gōbūrā, det. gbwrth ‘might, mighty action’ (Sok. 119), Arb. ţubūrat- ‘orgueil’ (BK 1 248) > PCS *gubūr-at-

2.26. \( C_3 a C_2 \tilde{a} C_3 \)

44. Only sā‘al in K Tna 761.

45. The only example attested in the Bible (rōkūb-ō in Ps 104.3) is of course not diagnostic as far as the nature of the vowel in the first syllable is concerned.
2.26.1. PCS:
Hbr. gibbôr ‘manly, vigorous; hero’ (KB 172), JBA gibbâr ‘strong, important’ (Sok. B 277), Syr. gabbâr ‘vir fortis, heros; fortis’ (Brock. 103), Arb. ṣabbâr ‘fort, grand et robuste; puissant; homme violent, tyran’ (BK 1 248) > PCS *gabhâr- 46.

2.27. C₁awC₂aC₃-

2.27.1. PS:
Akk. kušartu ‘repair’ (CAD K 598, AHw. 1570, CDA 170; MB on) 47, Ugr. kuš-šar-su [kšaru] ‘first element of the name of the god of magic and technology’ (DUL 472), Pho. chousôr [kûsôr], chousarthis [kûsar-t] (Friedrich-Röllig-Guzzo 1999:135), Hbr. kôšârôt ‘prosperity, happiness’ (KB 467), JPA kwâr ‘propriety’ (Sok. 254), JBA kušra ‘vigor’ (Sok. B 567), Syr. kušrà ‘habilitas, sollertia’ (Brock. 350), Arb. kawjar- ‘the abundance’ (Ambros 2004:236) > PS *kawjar(-at)-.

2.29. C₁iC₂aC₃-

2.29.1. PCS:
Hbr. šā’āšā’am ‘offspring, descendant’ (KB 993), Arb. ḍîṭî ḍî ḍi ḍi- ‘racine, source; nombreuse postérité, grand nombre d’enfants’ (BK 2 1) > PCS šiʔiʔiʔ.
# Note Gez. šā’āšā’am ‘shoots’ (LGz. 147; also ‘abortion’, ‘costs, expenses’), with a different vocalism.

3. Evaluation of the evidence

The nature of the evidence presented above is such that all kinds of conclusions will be of necessity tentative and preliminary. Patterns of derived nouns reconstructible to PS are relatively few in number and all of them (with some remarkable exceptions) are to a certain degree preserved in all or most of Semitic. Accordingly, agreement in root and pattern for a given derived noun between two or more Semitic languages can always be discarded as accidental. As common sense nevertheless suggests, this can hardly be the case for each of almost 140 examples accumulated above. This admittedly impressionistic claim can be supported by two types of arguments.

1. Geographic spread. In some cases, we are faced with patterns that are more or less trivial for all or most languages under consideration, but the agreement in form and meaning is so widely attested that it is rather hard to assume that each language opted for this particular pattern independently. Thus, *C₁iC₂aC₃- substantives are relatively common in most Semitic languages (Fox 2003:141-55), but this circumstance is hardly sufficient to justify such a virtually unanimous agreement as that between Akk. zîkru, Hbr. zêkûr, Arb. ḍîkr and Gez. zêkr (*ḡîkr-). Similarly, C₁aC₂aC₃- is well attested as a pattern of abstract nouns and infinitives but a merely accidental agreement between Akk. šâlûmu, Hbr. šâlôm, JBA

46. This reconstruction is not unanimously accepted, cf. Huehnergard 1992:222.
47. A nominalization kûšartu is preferable in view of the comparative data. Better attested (since OB) and semantically more fitting is kušru ‘success, profit’ (CAD K 599, AHw. 516) but the underlying pattern is not easily comparable with that reconstructed here.
"šolāmā, Arb. salām- and Gez. salām (*šalām-*) is hard to conceive48. I am aware that in a few cases the spread might have been conditioned (or at least facilitated) by cultural influence. This may be well be the case of Akk. ḥītu, Hbr. ḥēq(ʔ), JBA ḥīṭu, Arb. ḥīq- (> PS *ḥiḥ-*), whose ideologically important meaning ‘sin, crime’ was suitable for borrowing or influence. However, many of the relevant examples have no obvious cultural connotations, restricting the possibility of borrowing to a reasonable minimum.

2. Preservation of rare and non-productive patterns. In many cases, there is an agreement in meaning and pattern between two or more Semitic languages in spite of the fact that in some of them the pattern in question is rare and non-productive. In such cases, independent formations are very unlikely. Rather, one has to suppose that such derived nouns are inherited in their entirety from an older, prehistoric stage of the development of the language in question, a stage shared by it with other languages of the Semitic family.

Perhaps the most striking example of this type is represented by the relatively numerous C₁aC₂C₃- nouns in Akkadian. As is well known, the unproductive nature of this pattern is a hallmark of this language in comparison to West Semitic. Accordingly, such nominal lexemes as zarū, erbu, ḫabru, ūmu or parsu are more likely to be inherited from PS than produced within Akkadian. Unless considered primary (which may be the case of zarū or ūmu but rather unlikely in the remaining cases), such nouns must belong to a rather early stock of Proto-Semitic deverbal derivates.

As far as West Semitic is concerned, *C₂C₃C₄*- adjectives in Aramaic and Arabic deserve special attention. As already mentioned above, such adjectives are rare and unproductive in these languages. They are not entirely missing, however, and when they are attested, their structure is very often identical to that of their etymological counterparts in Hebrew and Akkadian: Hbr. ḫādāḵ, JBA ḫādat, Arb. ḫadag- (> *ḫadag-), Hbr. ḫākām, Arb. ḫakam- (> *ḫakam-), Akk. šalmu, fem. šalimtu, Hbr. šālēm, JBA šolēm (> *šalēm-), Akk. šaplu, fem. šapilu, Hbr. šāpel, Syr. šēpel, Arb. šafīl- (> *šapīl-) etc. It lies at hand to suppose that such adjectives are not internal Aramaic or Arabic derivations but go back to a relatively early stage of PS50.

A few patterns with vocalic length are worth mentioning in the present context. Thus, the use of the C₁uC₂C₃- pattern to designate diseases is relatively well attested throughout West Semitic (Fox 2003:229), so that Syr. šuʔalā, Arb. suʔāl- and Tna. soʔal ‘cough’ are potentially explainable as independent formations. However, no such function is known for C₁uC₂C₃- in Akkadian where suʔālu ‘cough’ is nevertheless attested since Middle Babylonian51. Similarly, the often postulated diminutive

48. This is duly acknowledged by a scholar otherwise reluctant to reconstruct derived nominal lexemes for PS: “an unusual case is *šalām- ‘well-being’, found in Akkadian, Arabic, Aramaic, Ge’ez and Hebrew. Only rarely do non-isolated nouns show such consistency among the languages. The noun cannot be isolated, because the verb from the root is also reconstructable on the basis of comparative evidence” (Fox 2003:179-80).

49. “The function of the qatīl patterns adjectives is obscured throughout much of West Semitic, where they have largely been replaced by *qatīl and qatīl/patients adjectives” (Fox 2003:123). In the table on p. 125, Fox qualifies Arb. *qatail as ‘rare’, Arb. *qatīl as “common”, Syr. *qatil and *qatīl as “very rare”. These qualifications look convincing although it is not clear on what kind of statistic evidence they are based.

50. Note that Hbr. ḫādāḵ, Syr. ḫattā and Arb. ḫadag- are said to be “cognates” in Fox 2003:164 in spite of Fox’s general reluctance to reconstruct derived adjectives. The same is true of the homonymous substantive pattern: on the same page of his study, Fox compares as cognates Hbr. ʾāmāl ‘trouble, labour, toil’, Syr. ʾanāl and Arb. ʾanūl.

51. Fox (2003:230) explains this form as a loanword (presumably, West Semitic) but this is rather hard to prove: ʾs instead of the expected š is by no means unique in Akkadian (v., e. g., SED I LXXII-LXXIII) whereas the word is well attested in a variety of medical and other texts.
function of $C_1uC_2iC_3$ is not productive either in Akkadian or in Arabic\textsuperscript{52}, which makes rather remarkable such pairs as Akk. $duk̡akû$ and Arb. $duk̡āk$- ‘small’ or Akk. $šuḫāru$ ‘child’ and Arb. $šuṭy̱r$- ‘small’. Finally, given the fact that the $C_1uC_2iC_3 \gamma$ pattern is certainly rare and unproductive in all Semitic languages except Arabic, it is tempting to suppose that such pairs as Akk. $ḫuḫēru$ ‘thin’ and Arb. $ḫuḫūr$- ‘joy’\textsuperscript{53} or Akk. $luḫūs$u and Hbr. $lobāš$ ‘garment’ represent something more than merely accidental coincidences.

Finally, a most peculiar case is that of Akk. $asīru$ ‘prisoner of war, captive foreigner used as worker’. This term, attested since Old Babylonian, is inseparable from Hbr. $ṭūsū$ and Arb. $ṭū$- with the same meaning. However, $C_1uC_2iC_3 \gamma$- adjectives are extremely rare or even non-existent in Akkadian (Fox 2003:187-8, Huehnergard 2006:10). Moreover, this form shows no trace of the e-coloring typical of its hypothetical source-verb $esēru$. No ready explanation for this strange example is at hand, yet three possibilities suggest themselves. Similarly to the Akkadian $C_1aC_2C_3 \gamma$ substantives discussed above, it may be a fossilized deverbal adjective inherited from PS. If accepted, this explanation would obviously contradict the widespread (and not implausible) assumption according to which $C_1aC_2C_3 \gamma$- adjectives were not lost in Akkadian but rather represent a West Semitic innovation (Huehnergard 2006:10, Fox 2003:123). An early West Semitic borrowing suggested in CAD A2 332 cannot be ruled out but is rather hard to prove: $asīru$ is not uncommon in OB sources (for a most recent survey v. Stol 2004:790-1), whereas an unquestionable West Semitism in the core OB Akkadian is a rarity at best. Finally, one could tentatively postulate a short $r$ in this word, not liable to the vocalic syncope because of the following $r$ (for a number of such examples v. Fox 2003:166). This suggestion does not explain why the e-coloring did not take place, whereas a total lack of syncopated by-forms (as in $labirullabr$ ‘old’) is suspicious.

Appendix: Proto-Semitic deverbal derivatives with non-trivial semantic shifts?

Throughout this article, the semantic relationship between the hypothetical derived nouns and their verbal sources has been rather straightforward and unambiguous: $*ml$- ‘to be full’ > $*mala$- ‘full’, $*mil$- ‘fullness’, $*dkr$ ‘to remember’ > $*dkr$- ‘memory’, $*kbr$ ‘to bury’ > $*kabr$- ‘grave’ etc.\textsuperscript{54} However, it is tempting to suppose that less trivial semantic shifts were probably involved on some occasions. As I tried to demonstrate in Kogan 2005:153-62, a given set of root consonants was usually reserved for only one semantic concept (nominal or verbal) in Proto-Semitic. A pair of reliable and sufficiently deep PS reconstructions with homonymous consonantal sets is rather hard to find. That is why, when such examples are actually discovered, Semitists are often tempted to avoid postulating true consonantal homonymy, supposing that one of the two lexemes (usually the noun) is derived from the other through a kind of less trivial semantic shift. A rich collection of examples of this category can be collected from P. Fronzaroli’s Studi:


\textsuperscript{52}. Cf. Fox 2003:229 (“$Quṭul$ is used for a few diminutives in many Semitic languages, although this use is neither productive nor common”).

\textsuperscript{53}. For this comparison v. Huehnergard 2003:104.

\textsuperscript{54}. It was for that reason that, with few exceptions, I found it justified to skip the relevant verbal roots from my presentation.

\textsuperscript{55}. “Il rapporto fra il carattere rituale del ricordare, espresso da $*dakur$, e la definizione del maschio come $*dakar$- viene così giustificato storicamente” (1964:20).


\textsuperscript{57}. “In quanto fluenti e sciolti sono indicati con una metafora presa dalla vegetazione rigogliosa” (1964:30).
The immediate relevance of these examples for the main problem of the present investigation is not in doubt. If one succeeds in demonstrating that such nouns (most of which obviously belong to the deepest levels of PS) are indeed derived from the verbal roots in question, a substantial body of deverbal derivates can be reconstructed for PS without much hesitation. The question is, therefore, whether these and similar derivational hypotheses can be defended and if they can, by what kind of arguments.

In my opinion, one’s evaluation of such hypotheses can be guided by three criteria.

1. **Spread and distribution of the verbal viz. the nominal roots.** Most nominal roots in question have an extraordinary wide distribution and with all probability belong to the oldest and most deeply rooted stock of PS basic lexicon. When the hypothetic source-verb has a comparable level of attestation, the derivational hypothesis cannot be excluded. Quite often, however, its attestation is limited to relatively small areas or even just a couple of closely related languages. It is of course undeniable that in some cases the putative source-verb may have been lost in most languages whereas the nominal root persisted everywhere, but one should rather avoid exploiting too often this slender possibility.

2. **Cross-linguistic probability of the semantic evolution.** Ideally, every non-trivial semantic shift should be justified by parallels from other linguistic areas. Indo-European, being extensively investigated...
and geographically contiguous, suggests itself as a rich source of this kind of cross-linguistic semantic comparanda.

3. Evidence from non-Semitic Afroasiatic languages. If the concrete meaning in question can be detected among Afroasiatic cognates known for this or that PS nominal root, its deverbal origin becomes inherently unlikely, at least on the Proto-Semitic level. Needless to say, only fully reliable Afroasiatic parallels are of value for this purpose.

As a positive example satisfying each of the three criteria, *kəbida(-at)- ‘liver’ is to be mentioned. Firstly, the distribution of the verbal root *kba ‘to be heavy’ is almost as wide as that of the almost pan-Semitic anatomic term (it is only in Aramaic in MSA that the noun is present but the verb is missing). Secondly, the semantic development is conditioned by natural factors and cross-linguistic evidence for liver designated as a heavy organ is not lacking (Buck 1949:252). Finally, no reliable Afroasiatic cognates for this term have been discovered so far. It is worth emphasizing once more that even if this derivation is accepted, it is to be projected to the deepest level of PS. Accordingly, formulations like “Hebrew kābēd ‘liver’ is derived from Hebrew kbd ‘to be heavy’”, so deplorably ubiquitous in Semitological literature, are to be carefully avoided.

While a few other examples from Fronzaroli’s list can be supported by cross-linguistic evidence and have no obvious obstacles from the internal Semitic or Afroasiatic point of view, doubtful or even entirely unconvincing examples are by far more numerous. Thus, the proposed derivation of *šinn- ‘tooth’ from *šanin- ‘similar, opposite’ does not satisfy any of the three criteria mentioned above. On the one hand, the nominal root, attested throughout Semitic with practically no exception, is opposed to the rather uncertain verbal reconstruction based on Akk. šānānu ‘to become equal, to rival, to match’ and Gez. tasannana ‘to quarrel, dispute, contend with’ (for its critical evaluation v. LGz. 505). On the other hand, cross-linguistic evidence for this semantic development has never been adduced (and it must be stressed that onus probandi in such cases is entirely on the authors of this or that derivational hypothesis). Finally, many rather obvious cognates from various Afroasiatic branches (HSED No. 2250) make abundantly clear that the meaning ‘tooth’ for this root is considerably older than PS.

Further unconvincing examples from the above list include *ʔalp- < *ʔalip- (the nominal root is attested in Akkadian and Soqotri, thus belonging to the most archaic stock of PS animal lexicon, whereas the verbal root is not reflected outside Aramaic and Arabic, see further SED II No. 4), *ʔispur- ‘bird’ < *şpr ‘to whistle’ (the nominal root is much more widely attested than the verbal one; reliable Chadic parallels with the meaning ‘bird’ are known, v. HSED No. 432, SED II No. 212), *raḳḳ- ‘turtle’ < *raḳḳ- ‘thin’ (the semantic evolution seems to be nearly impossible to justify, note especially the paradoxical contrast between ‘kleine Schildkröte’ in AHw. 958 and ‘grande tortue’ in BK 1 90; see further SED II No. 190). Other innumerable examples scattered over Semitological studies but reasonably omitted by Fronzaroli from his compendia still await comprehensive critical analysis.

Summing up: deverbal derivation implying less trivial semantic shifts was probably a feature of Proto-Semitic. Accordingly, at least some nominal roots commonly regarded as primary may in fact be old derivatives. The number of derived nouns that can be traced back to PS can be, therefore, potentially expanded. Every derivational hypothesis of this type is, however, to be taken with utmost caution and requires very serious justification before it is accepted.

70. Cf., e. g., KB 456 where kābēdII ‘liver’ is said to be “= I” (i. e., identical to the adjective kābēd ‘heavy’).
71. Thus, for ‘skin’ as derived from ‘to tear, to cut’ (admittedly, not ‘to draw!’) v. Buck 1949:200, for ‘river, stream’ as ‘breaking’ v. ibid.:43 (uncertain).
72. Eilers 1973 for whom ”die sogenannten Nomina primitiva der klassischen Semitistik gibt es kategorienmäßig gar nicht” (p. 21) provides an ideal starting point for such an investigation.
ON PROTO-SEMITIC DEVERBAL DERIVATION

Abbreviations of Languages and Dialects


Abbreviations of Lexicographic Tools

CAD The Assyrian Dictionary of the Oriental Institute, the University of Chicago. Chicago, 1956–.


References


