ON PAUSAL LENGTHENING, PAUSAL STRESS SHIFT, PHILIPPI’S LAW AND RULE ORDERING IN BIBLICAL HEBREW

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ABSTRACT: Philippi’s Law operated much later than generally assumed. It was preceded by:
1. Pausal lengthening; and
2. Pausal stress shift to the last syllable.
Therefore, pataḥ that arose through Philippi’s Law from i did not change through pausal lengthening to qamas. For example, pausal *wayyīlīk, which through pausal stress shift became *wayyīlīk, ultimately became wayyēlāk with final pataḥ rather than qamas, because pausal lengthening had ceased operating. Similarly, *mīl̄k, shifting through Philippi’s Law to *māl̄k, did not change to *mālk (> *mālek), but remained *māl̄k (> mēlek), because pausal lengthening had ceased operating.

1. The strict application of sound shifts and rigorous rule ordering is apt to clarify the conditions of phonetic behavior, which, prima facie, seems to be without any conditioning. Since, however, the regular behavior of sound shifts is affected by analogy, the results obtained are sometimes rather intricate.

1.1. Our starting point for the understanding of biblical phonology is the assumption that, in biblical Hebrew, general penult stress once prevailed. This theory, in my opinion, is the most powerful explanation avail-

1. I would like to thank my friend Professor Richard Steiner, who, acting as moderator of a symposium on stress in biblical Hebrew at Yeshiva University, New York, in December 1979, asked me about pausal wayyēlāk as against the context form wayyēlek, and so initiated this paper. I am grateful to him also for his sympathetic attitude during later stages. My friend Simon A. Hopkins read an early version of this paper and called my attention, inter alia, to the omission of an appropriate reference to Sarauw (1939). Needless to say, I alone am responsible for the views expressed.

2. See Blau (1976, p. 30), further e.g. Blau (1971a, pp. 18ff.), where (p. 19, note 8) additional literature is cited, further Blau (1978, pp. 91ff.).
able; with a single assumption it accounts for the position of stress in the majority of words, as attested in the later stage of biblical Hebrew, preserved by the Masorah. Words which have preserved their final vowels, have, in fact, kept their penult stress in general (e.g. 'ākālānū 'we ate', qāmūn 'they rose') or at least in pause (e.g. 'ākālā 'she ate', širēkā 'your song'), whereas those stressed on their ultima, as a rule, have lost their final vowel and now end in a consonant (as dabār < *dabāru 'thing', 'ākāl < *'akāla 'he ate'). Pausal forms like 'ākālā, širēkā, as against context forms like 'ākālā, širōkā, show that the original place of stress was preserved more faithfully in pause in words ending in a vowel, whereas in context it shifted to the ultima.

2. Yet, contrary to the general tendency towards the preservation of penult stress in pause in vowel-final words and its secondary shift to ultima in context, a minority of examples is attested in consonant-final words ending with original penult stress in context as against secondary ultima stress in pause, for example: 3

<table>
<thead>
<tr>
<th>Non-Pausal</th>
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<tr>
<td>wayyāsāb</td>
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<td>wayyāmot</td>
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<td>wayyēsēb</td>
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<td>*wayyiggāmel</td>
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<td>*wayyinnāpes</td>
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<td>wayyēred</td>
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<td>wayyōmēr</td>
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<td>wayyōkāl</td>
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3. The words cited can easily be found with the help of a concordance; words not attested as such in the Bible, yet to be reconstructed as such from other words of the same form, are (also) marked by an asterisk. The use of a macron and a circumflex is in accordance with the method of transliteration used in Hebrew Annual Review and does not indicate that the vowels marked are indeed (historically) long or that those unmarked are in fact (historically) short.

4. As a matter of fact, the context form of this word has been influenced by its pausal form, being stressed on its ultima, i.e. only wayyinnāpās exists.

5. For this exceptional pausal stress, cf. e.g. Böttcher (1866-68, I, p. 294, par. 489.3); Ewald (1870, p. 192, par. 92f); König (1881-97, II, p. 521); Brockelmann (1908-13, I, p. 106, par. 43p.γ,γγ), who, however, considers the ultima stress of the pausal forms to be more original; Bergsträsser (1918-29, I, p. 163, par. 29f), in whose opinion the pausal stress on the ultima is secondary, assuming that first, under circumstances difficult to specify, the original penult stress passed to the ultima and was later limited to pausal forms; Bauer-Leander (1922, p. 186, par. 13g, h), who also consider this pausal stress to be secondary, in their opinion being due to the influence of the imperfect form without consecutive wāw on the less frequent pausal forms with wāw (it is, however, difficult to understand why the influence of the wāw-less forms should have been stronger than that of the context forms.
2.1. The last six examples adduced in par. 2 are exceptional in another sense as well: the stressed syllable in pause is short, containing patah rather than qamas: wayyiggāmāl, wayyinapās, wayyēlāk, wayyērād, wayyōmār, wayyōkāl. This feature of stressed pausal patah is attested in other cases as well in which the stress of the patah is original:7 bat ‘daughter’, gat ‘winepress’, ‘at ‘softly’, ‘ad ‘perpetuity’ (exhibiting segol after connecting wāw: wā‘ed), bāz ‘spoil’ (but Num 31:32 bāz), qaš ‘straw’ alongside of qāš, sap ‘threshold’ alongside of sāp, mas ‘corvée’ alongside of mās; Gen 16:8 būrāḥat ‘fleeing’, Ps 107:35 māyim ‘water’ with ‘etnah not preceded by ‘ole wayored, whereas Prov 30:16 māyim with ‘etnah follows ‘ole wayored (yet at the end of the verse in Ps 107:35 māyim with qamas occurs) and, accordingly, one may interpret also the first segol of the pausal segolate type mēlek as originally short, since it corresponds to the patah of būrāḥat/māyim. This is especially so since, in the Babylonian vocalization, pausal forms of the type dāšan, mārad, āšar (but also āsar), tipʿārat (but also tipʿarat) are attested with historically short a in the stressed pausal syllable;8 telākna ‘they (fem.) will go’, tiššākābnā ‘they

with consecutive wāw); Lambert (1938, p. 66, par. 154), who regards the pausal stress as more original; Jojūn (1947, p. 80, par. 32ε); Meyer (1966–72, I, p. 92, par. 21.3b), who, similar to Blau (1976, p. 40, par. 11.5.1), does not account for the passing of the original penult stress to the ultima in pause. Sarauw (1939, pp. 80, 85), who deals with yelēk/yēlāk, rather than with wayyēlēk/wayyēlāk, posits original yelēk for pause, yēlāk for context.

6. Long patah is very exceptional, cf. e.g. Bergsträsser (1918–29, I, p. 60); Aartun (1967), who deals with short a in stressed syllables in general, does not treat the special problem of pausal patah. Cf. also Blau (1968).

7. Cf. Bötcher (1866–68, I, pp. 297–98, par. 492) and Ewald (1870, p. 192, par. 92f), who both call attention to the patah stemming from eš, as do also Lambert (1938, p. 65) and König (1881–97, II, pp. 534, 537–38). See also Bergsträsser (1918–29, pp. 160–61), who deals with the differences between the Tiberian and the Babylonian vocalizations; Bauer-Leander (1922, pp. 232–33), who regard these pausal forms as original context forms, yet treat monosyllabic nouns separately; Jojūn (1947, p. 79, par. 32b), where, however, pausal tikhātnā is erroneous; Sarauw (1939, pp. 77f). I have not especially dealt with cases of ‘etnah after ‘ole wayored, since, not marking the division of a verse into two halves, this ‘etnah does not always entail pausal lengthening (as it occurs sometimes even with ‘etnah not following ‘ole wayored in Psalms, Job, and Proverbs; yet such cases were expressly mentioned).

8. For the Babylonian forms, see Bergsträsser (1918–29, p. 161, par. 29), Yeivin (1968, p. 193), and Yeivin (1972–73, p. 33, par. 44). On the other hand, as shown by the cited sources, Babylonian (originally) long a may correspond to the first Tiberian segol of segolates, as Babylonian rūṣaʿ to Tiberian rēṣaʿ; Babylonian tāben to Tiberian tēben in pause, the differences being due to various analogical formations. The extent of analogical formations among segolates is also reflected by the limited number of Babylonian qētāl forms, corresponding to Tiberian qētel, see Yeivin (1972–73, p. 189, par. 477); cf. also Sarauw (1939, pp. 85–86); and in general Leander (1912, p. 190). For Samaritan Hebrew, see Ben Haiyim (1977, p. 188, par. 4.1.3.4). Cf. further Tiberian forms like nēpel, sēter, šēbet in context, as against pausal nāpel, sāter, šābet, or nēhel/nēbel in context, nābel in pause, further e.g. nēsah/nēsah in context, in pause always nēsah, or yēṣaʿ, even with small disjunctive accent (and in pause) yēṣaʿ.
will be ravished', *ta'akkásnā* 'they will tinkle', *tišbá'nā* 'they will be satisfied', *tiqšánā* 'they will pay attention', *tehērāšnā* 'they will be deaf', *hētāz* 'he cut off', *hepār* 'he broke', *qāmāl* 'it decayed', *wāmātī* 'and I shall die' (as against pausal *mātānā*), *zāqāntī* 'I have become old', Prov 24:30 *'ābārtī* 'I have passed' (with *'etnāh* without preceding *'ole* wayored), and similarly in the following three cases: Job 34:5 *sādāqtī* 'I am righteous', Job 42:6 *wānīhāmtī* 'and I repent', Ps 102:26 *yāsādātī*—further *'ākāntī* 'I ate', *niššālnā* 'we have been saved', *dibbārtī* 'you have spoken', *dibbārti* 'I have spoken', *higgādīnā* 'you have told', *higgādtī* 'I have told', *sībīrtā* 'you have broken', *miggārtā* 'you have hurled'; *hīqāltī* 'I ate', *nīqāltī* 'we have been saved', *dībbārti* 'you have spoken', *hīggādīnā* 'you have told', *sībīrtā* 'you have broken', *miggārtā* 'you have hurled'; *hīqāltī* 'you have reproached', *hehērāmtī* 'I have banned', *hehērāmnā* 'we have banned', *hōšbārtī* 'I have been shattered'; *hāsāb* 'bring back!', *ḥāsā* 'besmear', *tālān* 'lodge!' (so after *'al* 'not' expressing prohibition in pause, Judg 19:20, yet also in context in Job 17:2, used as an indicative), *lōshābār* 'to purify', *'al* *tā'ahār* 'do not delay' (three times, as against Eccl 5:3 *'al* *tā'ahēr* in context), *wayyaggās* 'and he brought', Job 13:21 *harḥāq* 'remove!' (with *'etnāh* without preceding *'ole* wayored), *'al* *tehērās* 'do not be silent' (but also *tehērās*).9

3. The pausal forms cited in par. 2 and even more particularly in par. 2.1, are, *prima facie*, a medley of examples without a common denominator. Yet, in our opinion, they can all be understood by paying careful attention to the relative chronology (diachronic rule ordering) and conditioning of the relevant sound changes. Since, however, some of these rules are affected by widespread analogy, the results, as generally in language (see par. 1), are not quite clear-cut.

3.1. As we have observed (see par. 2), in a minority of cases the original penult stress is preserved in context forms only, whereas the pausal forms have ultima stress. All the examples have a closed ultima; accordingly, we can record the sound shift: IN PAUSE THE PENULT STRESS SHIFT-

9. For various verbal forms exhibiting a in the Babylonian vocalization, cf. Yeivin (1968, pp. 470, 506). I do not count *pataḥ*, where even the context form should have exhibited *qamas*, the most conspicuous case being *'amīlām* 'I shall annihilate(?) them' in Ps 118:10, 11, 12 where even the context form should have terminated in *-lām* (with *qamas*). Cf. also the exceptional context form Neh 9:5 *marōmām* with final *patah*. Are these forms due to dissimilation of the Tiberian *qamas*, i.e. a, from the n (just as *yām* 'sea' even in construct and *sāb* 'lizard'; 'litter' are due to assimilation), i.e. the *patah* is originally long (just as the *qamas* of *yām* at least in construct has to be considered originally short)? This, however, is already outside the scope of this paper, as are nouns which exhibit stressed *pataḥ* (originally long, it seems) due to assimilation to a following *' (type *'arbā* 'four', see Blau (1968).
ED TO THE CLOSED ULTIMA,\textsuperscript{10} but was preserved when the ultima was open.

3.2. The shift of the pausal stress to closed ultima (par. 3.1.), however, does not account for the short stressed pausal syllable (par. 2.1, beginning). Of necessity, we have to posit that THE PAUSAL STRESS SHIFT TO CLOSED ULTIMA IS LATER THAN PAUSAL LENGTHENING, since only this assumption explains why these syllables were not affected by pausal lengthening. When pausal stress had reached the closed ultima, pausal lengthening had ceased operating; accordingly, the closed ultima, now affected by pausal stress, continued having a short vowel.

3.3. We have not yet accounted for the reason that many forms cited in par. 2 exhibit \textit{patah} in pause as against \textit{segol} (ultimately stemming from \textit{i}) in context: \textit{wayyiggámál, wayyínnapás, wayyélák, wayyérád, wayyómár}. Since in these forms \textit{a} for original \textit{i} occurs in closed stressed syllables, and it is according to Philippi's Law that \textit{i} shifted to \textit{a} in closed stressed syllables, we have to posit that PHILIPPI'S LAW CONTINUED OPERATING DURING THE PAUSAL STRESS SHIFT TO CLOSED ULTIMA.

3.4. Accordingly, first pausal lengthening ceased operating, then the pausal stress shift to closed ultima occurred, at which stage Philippi's Law was still operating.\textsuperscript{11} This assumption fully accounts for the behavior of the pausal forms cited in par. 2. Original \textit{*wayyilk}\textsuperscript{12} (short imperfect

\textsuperscript{10} In all the examples cited in par. 2 the penult is open. However, it stands to reason that pausal stress shifted to a closed ultima even from a closed penult, see par. 4.1.4, note 27.

\textsuperscript{11} This does not, however, imply that Philippi's Law started operating at this stage only. \textit{Obiter dictum}, it may well be that Philippi's Law continued operating longer than generally assumed, viz. even when final short vowels were dropped in the absolute. Generally, it is claimed that during the operation of Philippi's Law, nouns in the absolute still preserved the case vowels, whereas in construct they had already dropped them. This claim is based on absolute forms like \textit{zaqén} 'old' still exhibiting \textit{e}, allegedly because at the time of the action of Philippi's Law it still had the form \textit{*zaqinu, i} being an open syllable; see e.g. Blau (1976, p. 36, par. 9.3.4). As a matter of fact, nouns not ending in a double consonant (like \textit{*bitt>*batt>bät 'daughter') never ended in a short stressed \textit{i} in a closed syllable to be affected by Philippi's Law. Before the case endings were dropped, the \textit{i} occurred in an open syllable (type \textit{*zaqinu); at the same time as they were dropped, the \textit{i} was compensatorily lengthened, type \textit{zágén} (cf. Blau 1976, p. 31) and therefore was not affected by Philippi's Law, even if it still operated, because it did not influence long vowels.

\textsuperscript{12} For the sake of simplicity I write \textit{wayyilk} rather than \textit{wayyalik}, without implying that the (original) \textit{a} had already at that stage shifted to \textit{i} (presumably by assimilation). It is outside the scope of this paper to treat the problem whether the \textit{segol} of \textit{wayyelek} derives from \textit{i} or, as Ben-Ḥayyim (1978, p. 103) thinks, from \textit{a}. 
with “conversive” \(\text{waw}\), for example, first shifted in pause (where, by pausal lengthening, it had already become \(\text{*wayyélîk}\)) to \(\text{*wayyélîk}\), then becoming, by dint of Philippi’s Law, \(\text{wayyélák}\). The final short \(a\) was not lengthened, since pausal lengthening had already ceased operating.

4. Contextual forms with \(a\) from original \(i\) are to be explained as the result of analogy. Thus, for example, it stands to reason that the characteristic vowel of the imperfect \(\text{qal}\) of ‘\(\text{k.l.}\) ‘to eat’ was \(i\), as preserved in several pausal forms, e.g., \(\text{yokélû}\).\(^{13}\) Accordingly, one expects the context form to be \(\text{*wayyókel}\), rather than \(\text{wayyókal}\). The latter is due to analogy, \textit{inter alia}, of the pausal form, and the same applies, for example, to non-pausal \(\text{térád}, \text{tálán}\).\(^{14}\)

4.1. Analogical formation interfered extensively with the words cited in par. 2.1. We shall treat them in groups:

4.1.1 Monosyllabic nouns with \(a\) originally ending in a double consonant

Some of these nouns, no doubt, exhibit original \(i\): \text{bat}, derived from the masculine \(\text{*bin} \ ‘son’; \text{gat}, as indicated by the cuneiform proper nouns \(\text{Gimtu, Ginti, Gitti}\); presumably also \(\text{’ad}\), as indicated by the \text{segol} of \(\text{wá’d}\), which arises from \(i\) after laryngals and pharyngals;\(^{15}\) and \text{sap}, cognate with Akkadian \text{sippu} (also ‘threshold’). On the other hand, \text{mas} seems to have original \(a\), in the light of El-Amarna \text{massa}, and so also \text{qas}, in light of Aramaic \text{qássá}, borrowed into Arabic as \text{qašš}, and cf. also middle Hebrew \(\text{qássín}\); Syriac \(\text{qéssá}\) does not disprove an original \(a\), since the \(e\) may be due to assimilation to the \(s\). Nevertheless, it is quite noteworthy that (perhaps with the exception of \(\text{qáš}\), if \(\text{qássín}\) is, indeed, the correct pronunciation) \textit{all} these nouns have \(i\) preceding suffixes and that I have not found a single noun that has \(a\) preceding suffixes and \(a\) in pause. Accordingly, it stands to reason that the occurrence of \(a\) (as against \(a\)) in pause is somehow connected with the original pattern \(\text{qíl} (\text{mas and qáš}

13. It is beyond the scope of this paper to tackle the problem of whether the \(i/e\) is original or rather arose by dissimilation from \(u\): \(\text{*okul} > \text{*okil}\).

14. It stands to reason that \(i\) in final closed stressed syllables of verbs in context shifted to \(e\) (segol), rather than to \(a\), see Blau (1971b, pp. 155–56), and Blau (1976, pp. 36–37, note 2). Therefore, these context forms cannot be considered to reflect the exclusive impact of Philippi’s Law. For additional cases of the intrusion of \(a\) into context forms, cf. the Babylonian vocalization of forms like \(\text{hapqad or yélak}\), see Yeivin (1968, pp. 470, 506, par. 23.27, 30.2), and Yeivin (1972–73, pp. 100, 109, par. 234, 265). A form like pausal \(\text{wayyéšáb}\), rather than \(\text{wayyéšáb}\), is due to the impact of the contextual form.

15. This interpretation, in my opinion, is much more likely than if we were to posit original \(\text{*wá’ad}\), i.e. Tiberian \(\text{wá’ad}\), and to assume that the \(a\) changed to \(e\) through the impact of the preceding \(á\). As a rule, it is only a following \(á\) that changes a preceding \(a\) to \(e\) (type \(\text{hehág}<\text{*háhág} \ ‘the feast’).
being due to analogy). The question of how this connection arose can be answered by investigating the relative chronology of Philippi's Law and pausal lengthening:

a) Let us assume, for argument's sake, that Philippi's Law preceded pausal lengthening. In this case the original pattern qill would have become qall in both context and pause by the influence of Philippi's Law to lengthen later in pause to qall. Accordingly, original qill would have had the following forms: qall (in absolute\(^{16}\) and construct), qall\(_{m}\) (in pause), qill\(_{m}\) (preceding stressed suffix, where Philippi's Law could not apply). These forms would have been identical to the original qall forms, except for those preceding stressed suffixes, which would be qall\(_{m}\), etc. This paradigm does not provide an explanation why original qall should have a much greater tendency to preserve pausal qall, whereas original qill tends towards pausal qall (with parah). Accordingly, the supposition that Philippi's Law preceded pausal lengthening seems to be fallacious.

b) Therefore let us assume that PAUSAL LENGTHENING PRECEDED THE OPERATION OF PHILIPPI'S LAW. In this case, by pausal lengthening qill became qell in pause.\(^{17}\) Then Philippi's Law began to operate, changing qill in both absolute\(^{16}\) and construct to qall, but not affecting pausal qell, because Philippi's Law only applies to SHORT i. The differences between original qall and qill were, accordingly, quite conspicuous:

Original qall: qall (in absolute and construct), qall\(_{m}\) (in pause), qall\(_{m}\).

Since the difference between pausal qell and contextual qall was too great, the pausal form was replaced by the contextual one; and since pausal lengthening ceased being productive (except by analogy), pausal qall was not lengthened to *qall.

Since this interpretation of the facts is the only one that accounts for pausal qall (with parah) deriving from original qill, we are inclined to posit that pausal lengthening, indeed, preceded Philippi's Law. Since pausal lengthening in Aramaic is rather marginal, presumably to a great extent due to Hebrew influence,\(^{18}\) it stands to reason that it is not due to

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16. As a matter of fact, the absolute qill, through Philippi's Law, shifted to qell (with segol) rather than to qall, see Bergsträsser (1918–29, 1, p. 149, par. 26i). Blau (1971b, p. 155), and Blau (1976, pp. 36–37, note 2). Later this qell often shifted to qell. At this stage we find nouns of the type qen 'nest', construct qan. Then, either the absolute prevailed (type leb 'heart', construct leb), or the construct prevailed (type bat, construct bat). Since we are dealing with the later type only, for the sake of simplicity I have simply posited qall for the absolute.

17. Forms like pausal śame'ā 'he heard' demonstrate that i shifted to e by pausal lengthening.

18. See Bauer-Leander (1927, p. 23, par. 5d), Segert (1975, pp. 142–43, par. 3.9.9.5).
common Northwest Semitic heritage, but rather a special Hebrew development. Accordingly, the even later Philippi’s Law cannot be common Northwest Semitic heritage either, but developed in Hebrew separately.

4.1.2. Segolate nouns

It has been surmised that segolate nouns of the pattern qētel (with segol in both syllables) that are derived from original qītīl have pausal qētel, whereas the qētel nouns that are derived from original qatīl form pausal qātel. In the main, this seems to be correct, although analogical formation has greatly interfered with this situation. The different behavior of qētel<qītīl, and qētel<qatīl is easily accounted for by the assumption that pausal lengthening preceded Philippi’s Law. Qītīl first became *qētel (>qētel) in pause, which, because of the long ʾe, was not affected by Philippi’s Law; later, in context, qītīl changed through Philippi’s Law to qatīl (>qētel). Original qatīl, on the other hand, through pausal lengthening changed in pause to qātel (>qātel). Since the dif-

20. Philippi regarded his law even as Proto-Semitic. See against this assumption Brockelmann (1908–13, i, pp. 147–48), and Bergsträsser (1918–29, p. 149, par. 26h), who considered this sound shift to be Northwest Semitic, as did Leander (1912, p. 186) and Blake (1950, p. 83). Sarauw (1939, pp. 76–80), on the other hand, recognized that pausal lengthening preceded Philippi’s Law but postponed Philippi’s Law until after Origines! Sarauw based his claim on the fact that Origines (and other Greek sources) transcribed patah deriving from i by epsilon, since he interpreted every epsilon as reflecting i. This, however, is fallacious. Brunno’s lists of Tiberian patah corresponding to epsilon in the Hexapla (1943, pp. 262–280; without agreeing to all his interpretations) clearly show that epsilon often transcribes original patah; so ‘ad ‘till’ is transcribed both as (Ps 28:9, 46:10; 89:47) and a (Ps 18:38); ‘al ‘not!’ is transcribed by el eight times, etc. Though the usual claim that Philippi’s Law preceded the dropping of case endings in the absolute is erroneous (see above, note 11), there is no indication for its very late action either. Sarauw (1939, p. 78), to be sure, is correct in demonstrating that it is later than the elision of the glottal stop in yāreli ‘I was afraid’, etc., yet this elision is by no means late, see Blau (1975, p. 68). At any rate, Philippi’s Law is earlier than the tendency characteristic of the fourth Proto-Hebrew stress period (for which see Blau 1976, pp. 32–34; this stress period, to be sure, is later than pretonic lengthening, see p. 33 for ultima, rather than penult, stress). During this period original *ātā ‘now’ had become ʾatā. Yet *ātā itself arose from *itā (from ‘et ‘time’ < *iti) through the action of Philippi’s Law on the originally stressed first syllable, which became unstressed only during the fourth Proto-Hebrew stress period. Accordingly, Philippi’s Law is earlier than this stress period.

21. See e.g. Sarauw (1939, pp. 84–85), Joöon (1947, p. 79, par. 32b; p. 236, par. 96c), as against Bauer-Leander (1927, p. 566, par. 72c), who posit pausal qētel for original qītīl as well.

22. Only faint traces of original contextual ʾe (segol) alongside of pausal ʾe (segol) have been preserved: contextual dibber ‘he spoke’ exhibiting final segol that arose from i through Philippi’s Law (see Blau 1971, p. 155), whereas pausal dibber was not affected by Philippi’s Law, because pausal lengthening preceded it. Similarly, contextual kibbes ‘he washed’ has segol (alongside kibbès, to be sure) as against pausal kibbès.
ference between contextual qatīl and pausal qēṭel was both quantitative and qualitative, whereas the difference between contextual qatīl and pausal qāṭel was quantitative only, the great dissimilarity between qatīl and qēṭel was levelled down and contextual qatīl (>qēṭel) was used in pause as well. However, this situation, as stated, was greatly changed by widespread analogical formation, which, inter alia, entailed pausal qāṭel alongside of contextual qēṭel, and even more surprisingly, contextual qēṭel alongside of pausal qēṭel (although we would have expected just the opposite, i.e. contextual qēṭel and pausal qēṭel).

4.1.3. Plural feminine forms

At least some of the 2nd/3rd person plural feminine forms with pataḥ arose from original i, as tisšākabnā, ts'akasnā, tēlknā, and perhaps also some other qal forms, if they exhibit original i- imperfects. According to Philippi's Law, only the contextual forms should have exhibited a, whereas, because of the preceding pausal lengthening, the pausal forms should have contained ē. Since the differences were again both quantitative and qualitative, they were levelled out by the intrusion of the contextual forms into pausal position (and, in other cases, by the prevalence of the pausal forms, as in the case of pī'el, in which ē prevailed, also through the influence of other members of the paradigm containing ē). Similarly, at least many of the perfect forms cited in the next group with stressed pausal pataḥ contain original i, as hetaz, hēpar, dibbartā and other hipīl and pī'el forms, as well as qal forms like qāmal, wāmatti, zāqantī. Hošbartī may be taken as a hint that the passive perfect forms originally had i in their second syllable (*huqīla, *quṣṭīła, *quṭūla).

4.1.4. Stressed pataḥ in closed ultima

The last group comprises words which, both in context and in pause, bear stress on pataḥ in their closed ultima (and this is the reason I have dealt with them separately and not together with par. 2). Yet it stands to reason that these imperative and shortened imperfect forms (including both jussive and wāw-imperfect) were originally stressed on

23. For the extent of analogical formation in segolate nouns, cf. note 8 above.
25. As in Arabic and Aramaic, pace Bauer-Leander (1922, p. 284a).
26. The wāw-imperfect forms treated in this paragraph have closed penult. This is the reason that, in contradistinction to the forms dealt with in par. 2 above, they are stressed on their final syllables even in context (see below). I have included the construct infinitive lshābar as well in this group because of its formal identity with the imperative (cf. e.g. in verbs III-guttural, forms like hisšāma', rather than hisšāmēā 'to be heard'), as if it originally ended in the last radical, rather than in a case ending. It is outside the scope of this paper to examine the question whether this identity is original or rather due to the analogy of the imperative.
their penult. Since these forms from their very beginning ended in their last radical, during the general penult stress period they were stressed on their penult, i.e. *hāsib, *hāsi', *t̪ə'āhir,27 wayyāggiš,27 hārhiq. The stress shifted first in pause to the ultima, in accordance with the rule that shifted pausal stress to a closed ultima. The ultima contained i,28 which, in accordance with Philippi's Law, shifted in the now stressed syllable to a. Since pausal lengthening had already ceased operating, the short a remained in pause. Later, stress shifted to the last syllable in the contextual forms also in forms with closed penult (like harḥēq), since words ending in two closed syllables are invariably stressed on their final syllables, i.e. on the second closed syllable. The contextual ultima stress in forms with open penult (like ḥāseb) is due to the analogy of the ordinary (unshortened) imperfect. Yet the wāw-imperfect forms were less affected by this analogy and often preserved their original stress on the penult, when it was open (like wayyāṣeb).

5. Third person singular feminine qal perfect has the pausal form qāṭālā, originally (after the pausal lengthening) *qatālat. If, at the time of the pausal shift to closed final syllables, the final t had not yet been deleted, it would have affected *qatālat to become *qatālāt (and later *qatālā). Accordingly, the dropping of the final t in the third person singular feminine of the perfect precedes the pausal shift to closed final syllables.

5.1. The same applies to the dropping of the (originally consonantal) -h of the terminative -ḥā. If, at the time of the pausal shift to closed ultima, nouns of the type bāytah 'home' still ended in -h, they would have been affected by the pausal shift. Accordingly, pausal bāyta', etc., demonstrate that the dropping of the final -h of terminative -āḥ preceded the pausal stress shift.

6. This is the relative chronology established:

6.1. PAUSAL LENGTHENING. This shift preceded the pausal stress shift, since vowels that became stressed by the pausal stress shift were not

27. These examples are of special importance, since, having a closed penult, they reflect the pausal stress shift to closed ultima from closed penult, thus demonstrating that this stress shift obtained for both open and closed penult, cf. note 10 above. It stands to reason that these pausal forms, due to pausal lengthening, originally had long stressed penult syllables *t̪ə'āhir, *wayyāggiš, *hārhiq. Later, however, when these syllables became unstressed, their long vowel was shortened.

28. If tehērās indeed belongs to this group and is not due to the analogy of original i-imperfect forms, it was originally *t̪əhriš, according to Barth's Law of the imperfect prefixes of qal.
affected by it. It also preceded Philippi's Law, since vowels lengthened by pausal lengthening did not undergo the shift $i \rightarrow a$ (*melk, for example, did not shift to *malk), because this $i$ was first lengthened, so that Philippi's Law did not apply to it.


This dropping preceded the pausal stress shift, since otherwise pausal *qatālat and *bāyītah would also have been affected by the pausal stress shift. The (relative) chronological relation between the dropping of -t/-h and pausal lengthening is not established.

6.3. PAUSAL STRESS SHIFT TO CLOSED ULTIMA

6.4. PHILIPPI'S LAW. It was (still) operating after the pausal stress shift, since in words like wayyēlāk it affected the syllable that became stressed by the pausal stress shift. This, however, does not imply that Philippi's Law only started operating after the pausal stress shift.29

29. For other particulars of relative chronology related to Philippi's Law see note 20 above.
BIBLIOGRAPHY


