

ON PAUSAL LENGTHENING, PAUSAL STRESS SHIFT, PHILIPPI'S LAW AND RULE ORDERING IN BIBLICAL HEBREW¹

By

JOSHUA BLAU

Hebrew University of Jerusalem

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 *qamaṣ*. For example, pausal **wayyilik*, which through pausal stress shift became **wayyilik*, ultimately became *wayyēlāk* with final *pataḥ* rather than *qamaṣ*, because pausal lengthening had ceased operating. Similarly, **milk*, shifting through Philippi's Law to **malk*, did not change to **mālk* (>**mālek*), but remained **malk* (>*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.² 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. *'akálnû* 'we ate', *qāmû* 'they rose') or at least in pause (e.g. *'akālā* 'she ate', *širékā* 'your song'), whereas those stressed on their ultima, as a rule, have lost their final vowel and now end in a consonant (as *dābār* < **dabāru* 'thing', *'akāl* < **akāla* 'he ate'). Pausal forms like *'akālā*, *širékā*, as against context forms like *'akālā*, *širékā*, 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

<i>Non-Pausal</i>		<i>Pausal</i>
<i>wayyāšob</i>	'and he returned'	<i>wayyāšōb</i>
<i>wayyāmōt</i>	'and he died'	<i>wayyāmōt</i>
<i>wayyēšēb</i>	'and he sat'	<i>wayyēšēb</i>
* <i>wayyiggāmel</i>	'and he was weaned'	<i>wayyiggāmāl</i>
* <i>wayyinnāpeš</i> ⁴	'and he rested'	<i>wayyinnāpās</i>
<i>wayyēlek</i>	'and he went'	<i>wayyēlāk</i>
<i>wayyēred</i>	'and he went down'	<i>wayyērād</i>
<i>wayyōmer</i>	'and he said'	<i>wayyōmār</i>
<i>wayyōkal</i>	'and he ate'	<i>wayyōkāl</i> ⁵

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 *wayyinnāpēs* 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.κ.γγ), who, however, considers the ultima stress of the pausal forms to be more original; Bergsträsser (1918–29, I, p. 163, par. 29i), 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 *pataḥ*⁶ rather than *qamaṣ*: *wayyiggāmāl*, *wayyināpāš*, *wayyēlāk*, *wayyērād*, *wayyōmār*, *wayyōkāl*. This feature of stressed pausal *pataḥ* is attested in other cases as well in which the stress of the *pataḥ* is original:⁷ *bat* 'daughter', *gat* 'winepress', '*aṭ* '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 *bōrāḥat* 'fleeing', Ps 107:35 *māyim* 'water' with '*etnaḥ* not preceded by '*ole wəyored*, whereas Prov 30:16 *māyim* with '*etnaḥ* follows '*ole wəyored* (yet at the end of the verse in Ps 107:35 *māyim* with *qamaṣ* occurs) and, accordingly, one may interpret also the first *segol* of the pausal segolate type *mélek* as originally short, since it corresponds to the *pataḥ* of *bōrāḥat/māyim*. This is especially so since, in the Babylonian vocalization, pausal forms of the type *dāšan*, *mārad*, '*āšar* (but also '*āšar*), *tip'arat* (but also *tip'arat*) are attested with historically short *a* in the stressed pausal syllable;⁸ *tēlāknā* 'they (fem.) will go', *iššākābnā* 'they

with consecutive *wāw*); Lambert (1938, p. 66, par. 154), who regards the pausal stress as more original; Joüon (1947, p. 80, par. 32e); 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 *yēlāk/yēlāk*, rather than with *wayyēlek/wayyēlāk*, posits original *yēlāk* for pause, *yēlāk* for context.

6. Long *pataḥ* 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 *pataḥ*. Cf. also Blau (1968).

7. Cf. Böttcher (1866-68, I, pp. 297-98, par. 492) and Ewald (1870, p. 192, par. 92f), who both call attention to the *pataḥ* stemming from *ē/i*, 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; Joüon (1947, p. 79, par. 32b), where, however, pausal *tikhādānā* is erroneous; Sarauw (1939, pp. 77f). I have not especially dealt with cases of '*etnaḥ* after '*ole wəyored*, since, not marking the division of a verse into two halves, this '*etnaḥ* does not always entail pausal lengthening (as it occurs sometimes even with '*etnaḥ* not following '*ole wəyored* 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 *ā* may correspond to the first Tiberian *segol* of segolates, as Babylonian *rāša'* to Tiberian *rēša'*, 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 *qēṭal* forms, corresponding to Tiberian *qēṭel*, 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 Ḥayyim (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 *nēbel/nēbel* in context, *nābel* in pause, further e.g. *nēsaḥ/nēsaḥ* in context, in pause always *nēsaḥ*, or *yēša'*, even with small disjunctive accent (and in pause) *yēša'*.

will be ravished', *tə'akkāsna* 'they will tinkle', *tišbā'nā* 'they will be satisfied', *tiqšābnā* 'they will pay attention', *teḥērāšnā* 'they will be deaf', *hētāz* 'he cut off', *hēpār* 'he broke', *qamāl* 'it decayed', *wāmātī* 'and I shall die' (as against pausal *mātnū*), *zāqāntī* 'I have become old', Prov 24:30 *'ābārī* 'I have passed' (with *'etnaḥ* without preceding *'ole wəyored*, and similarly in the following three cases: Job 34:5 *šādāqtī* 'I am righteous', Job 42:6 *wəniḥāmtī* 'and I repent', Ps 102:26 *yāsādīā*)—further *'akālī* 'I ate', *niššālnū* 'we have been saved', *dibbārīā* 'you have spoken', *dibbārī* 'I have spoken', *higgādīā* 'you have told', *higgādī* 'I have told', *šibbārīā* 'you have broken', *miggārīā* 'you have hurled'; *hiššālnū* 'we have saved', *ḥērāptā* 'you have reproached', *heḥērāmtī* 'I have banned', *heḥērāmnū* 'we have banned', *hošbārī* 'I have been shattered'; *hāšāb* 'bring back!', *hāšā* '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), *lāhābār* 'to purify', *'al tə'aḥār* 'do not delay' (three times, as against Eccl 5:3 *'al tə'aḥēr* in context), *wayyaggāš* 'and he brought', Job 13:21 *harḥāq* 'remove!' (with *'etnaḥ* without preceding *'ole wəyored*), *'al teḥērās* 'do not be silent' (but also *teḥērās*).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 *qamaš*, the most conspicuous case being *'amilām* 'I shall annihilate(?) them' in Ps 118:10, 11, 12 where even the context form should have terminated in *-lām* (with *qamaš*). Cf. also the exceptional context form Neh 9:5 *mərōmām* with final *pataḥ*. Are these forms due to dissimilation of the Tiberian *qamaš*, i.e. *ā*, from the *m* (just as *yām* 'sea' even in construct and *šāb* 'lizard'; 'litter' are due to assimilation), i.e. the *pataḥ* is originally long (just as the *qamaš* 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,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 *pataḥ* in pause as against *segol* (ultimately stemming from *i*) in context: *wayyiggāmāl*, *wayyinnāpāš*, *wayyēlāk*, *wayyērād*, *wayyōmār*. Since in these forms *a* for original *i* occurs in closed stressed syllables, and it is according to Philippi's Law that *i* shifted to *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.¹¹ This assumption fully accounts for the behavior of the pausal forms cited in par. 2. Original **wayyīlik*¹² (short imperfect

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.

11. This does not, however, imply that Philippi's Law *started* operating at this stage only. *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 *zāqēn* 'old' still exhibiting *ē*, allegedly because at the time of the action of Philippi's Law it still had the form **zaqīnu*, *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 **bitt* > **batt* > *bat* 'daughter') never ended in a short stressed *i* in a closed syllable to be affected by Philippi's Law. Before the case endings were dropped, the *i* occurred in an open syllable (type **zaqīnu*); at the same time as they were dropped, the *i* was compensatorily lengthened, type *zāqēn* (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.

12. For the sake of simplicity I write *wayyīlik* rather than *wayyalik*, without implying that the (original) *a* had already at that stage shifted to *i* (presumably by assimilation). It is outside the scope of this paper to treat the problem whether the *segol* of *wayyēlek* derives from *i* or, as Ben-Hayyim (1978, p. 103) thinks, from *a*.

with “conversive” *wāw*), for example, first shifted in pause (where, by pausal lengthening, it had already become **wayyēlik*) to **wayyēlik*, then becoming, by dint of Philippi’s Law, *wayyēlāk*. 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 *qal* of ‘.k.l. ‘to eat’ was *i*, as preserved in several pausal forms, e.g., *yokēlû*.¹³ Accordingly, one expects the context form to be **wayyōkel*, rather than *wayyōkal*. The latter is due to analogy, *inter alia*, of the pausal form, and the same applies, for example, to non-pausal *tērād*, *tālān*.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*: *bat*, derived from the masculine **bin* ‘son’; *gat*, as indicated by the cuneiform proper nouns *Gimtu*, *Ginti*, *Giti*; presumably also *ad*, as indicated by the *segol* of *wā’ed*, which arises from *i* after laryngals and pharyngals;¹⁵ and *sap*, cognate with Akkadian *sippu* (also ‘threshold’). On the other hand, *mas* seems to have original *a*, in the light of El-Amarna *massa*, and so also *qaš*, in light of Aramaic *qaššā*, borrowed into Arabic as *qašš*, and cf. also middle Hebrew *qaššīn*; Syriac *qeššā* does not disprove an original *a*, since the *e* may be due to assimilation to the *š*. Nevertheless, it is quite noteworthy that (perhaps with the exception of *qaš*, if *qaššīn* is, indeed, the correct pronunciation) *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 *ā*) in pause is somehow connected with the original pattern *qill* (*mas* and *qaš*

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*: **okul* > **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 *hapqad* or *yēlak*, 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 *wayyēšēb*, rather than *wayyēšāb*, 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 **wā’ad*, i.e. Tiberian *wā’ad*, and to assume that the *a* changed to *e* through the impact of the preceding *ā*. As a rule, it is only a *following ā* that changes a *preceding a* to *e* (type *hehāg* < **hahāg* ‘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 *qāll*. Accordingly, original *qill* would have had the following forms: *qall* (in absolute¹⁶ and construct), *qāll* (in pause), *qillīm* (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 *qallīm*, etc. This paradigm does not provide an explanation why original *qall* should have a much greater tendency to preserve pausal *qāll*, whereas original *qill* tends towards pausal *qall* (with *pataḥ*). 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 *qēll* in pause.¹⁷ Then Philippi's Law began to operate, changing *qill* in both absolute¹⁶ and construct to *qall*, but not affecting pausal *qēll*, 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), *qāll* (in pause), *qallīm*.

Original *qill*: *qall* (in absolute¹⁶ and construct), *qēll* (in pause), *qillīm*.

Since the difference between pausal *qēll* 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 **qāll*.

Since this interpretation of the facts is the only one that accounts for pausal *qall* (with *pataḥ*) 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

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, I, p. 149, par. 26i), Blau (1971b, p. 155), and Blau (1976, pp. 36-37, note 2). Later this *qell* often shifted to *qēll*. At this stage we find nouns of the type *qēn* 'nest', construct *qan*. Then, either the absolute prevailed (type *lēb* 'heart', construct *lēb*), 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 *šāmēā* 'he heard' demonstrate that *i* shifted to *ē* 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.¹⁹ Accordingly, the even later Philippi's Law cannot be common Northwest Semitic heritage either, but developed in Hebrew separately.²⁰

4.1.2. Segolate nouns

It has been surmised²¹ that segolate nouns of the pattern *qēṭel* (with *segol* in both syllables) that are derived from original *qīṭl* have pausal *qēṭel*, whereas the *qēṭel* nouns that are derived from original *qaṭl* form pausal *qāṭel*. In the main, this seems to be correct, although analogical formation has greatly interfered with this situation.²² The different behavior of *qēṭel* < *qīṭl*, and *qēṭel* < *qaṭl* is easily accounted for by the assumption that pausal lengthening preceded Philippi's Law. *Qīṭl* first became **qēṭl* (> *qēṭel*) in pause, which, because of the long *ē*, was not affected by Philippi's Law; later, in context, *qīṭl* changed through Philippi's Law to *qaṭl* (> *qēṭel*). Original *qaṭl*, on the other hand, through pausal lengthening changed in pause to *qāṭl* (> *qāṭel*). Since the dif-

19. Pace Sarauw (1939, p. 107).

20. Philippi regarded his law even as Proto-Semitic. See against this assumption Brockmann (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 *pataḥ* deriving from *i* by *epsilon*, since he interpreted every *epsilon* as reflecting *i*. This, however, is fallacious. Brønno's lists of Tiberian *pataḥ* corresponding to *epsilon* in the Hexapla (1943, pp. 262–280; without agreeing to all his interpretations) clearly show that *epsilon* often transcribes original *pataḥ*; so 'ad 'till' is transcribed both *āō* (Ps 28:9, 46:10; 89:47) and *eō* (Ps 18:38); 'al 'not!' is transcribed by *eλ* 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 *yārēti* '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 **ʾattā* 'now' had become *attā*. Yet **ʾattā* itself arose from **ʾittā* (from 'et 'time' < **ʾitt*) 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), Joüon (1947, p. 79, par. 32b; p. 236, par. 96c), as against Bauer-Leander (1927, p. 566, par. 72c), who posit pausal *qāṭel* for original *qīṭl* as well.

22. Only faint traces of original contextual *e* (*segol*) alongside of pausal *ē* (*seve*) 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 *kibbēs*, to be sure) as against pausal *kibbēs*.

ference between contextual *qaṭl* and pausal *qēṭl* was both quantitative and qualitative, whereas the difference between contextual *qaṭl* and pausal *qāṭl* was quantitative only, the great dissimilarity between *qaṭl* and *qēṭl* was levelled down and contextual *qaṭl* (>*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 *qetel* (although we would have expected just the opposite, i.e. contextual *qetel* and pausal *qēṭel*).²³

4.1.3. Plural feminine forms

At least some of the 2nd/3rd person plural feminine forms with *pataḥ* arose from original *i*, as *tiššākabnā*, *tə'akkasnā*, *tēlaknā*, 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 *pi'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 *hētaz*, *hēpar*, *dibbartā* and other *hip'īl* and *pi'el* forms,²⁴ as well as *qal* forms like *qāmal*, *wāmattī*, *zāqantī*. *Hošbarī* may be taken as a hint that the passive perfect forms originally had *i* in their second syllable (**huqīla*, **quṭīla*, **quṭīla*).²⁵

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)²⁶ were originally stressed on

23. For the extent of analogical formation in segolate nouns, cf. note 8 above.

24. For original *i* in these verbal forms, cf. Blau (1971b, pp. 152-58).

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 *lāhābar* as well in this group because of its formal identity with the imperative (cf. e.g. in verbs III-guttural, forms like *hiššāma*, rather than *hiššāmēā* '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. **hāšib*, **hāši'*, **ṭā'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 *hāšēb*) 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 *wayyāšēb*).

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 *-āh*. 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 *bāytā*, etc., demonstrate that the dropping of the final *-h* of terminative *-āh* 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 **ṭā'āhir*, **wayyāggiš*, **hārhiq*). Later, however, when these syllables became unstressed, their long vowel was shortened.

28. If *teḥēraš* indeed belongs to this group and is not due to the analogy of original *i*-imperfect forms, it was originally **tāhris*, 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 $i > a$ (**mēlk*, for example, did not shift to **mālk*), because this *i* was first lengthened, so that Philippi's Law did not apply to it.

6.2. DROPPING OF THE FINAL -T OF THE THIRD PERSON FEMININE SINGULAR PERFECT SUFFIX -AT AND OF THE FINAL -H OF THE TERMINATIVE -AH.

This dropping preceded the pausal stress shift, since otherwise pausal **qatālat* and **bāytah* 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.

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