Studies in Semitic Vocalisation and Reading Traditions

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https://www.openbookpublishers.com

Cover image: Detail from a bilingual Latin-Punic inscription at the theatre at Lepcis Magna, IRT 321 (accessed from https://it.wikipedia.org/wiki/File:Inscription_Theatre_Leptis_Magna_Libya.JPG). Leaf of a Syriac prayer book with Western vocalisation signs (source: Wikimedia Commons). Leaf of an Abbasid-era Qurʾān (vv. 64.11–12) with red, yellow, and green vocalisation dots (source: Wikimedia Commons). Genizah fragment of the Hebrew Bible (Gen. 11–12, Cambridge University Library T-S A1.56; courtesy of the Syndics of Cambridge University Library). Genizah fragment of a Karaite transcription of the Hebrew Bible in Arabic script (Num. 14.22–24, 40–42, Cambridge University Library T-S Ar. 52.242; courtesy of the Syndics of Cambridge University Library). Greek transcription of the Hebrew for Ps. 22.2a in Matt. 27.46 as found in Codex Bezae (fol. 99v; courtesy of the Syndics of Cambridge University Library).

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PHONOLOGICAL ADAPTATION AND THE BIBLICAL ARAMAIC AND BIBLICAL HEBREW REFLEXES OF *I AND *U*

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1.0. INTRODUCTION

For over a century, historical linguists have been guided by the *Ausnahmslosigkeit der Lautgesetze,* the principle that sound changes affecting a language are phonetically regular and exceptionless, as put forward by the nineteenth-century German philologists and linguists known as the Neogrammarians. Hermann Paul (1880, 69) formulates this principle as follows:

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* I am very grateful to Geoffrey Khan for having invited me to come present the contents of this paper in Cambridge. I also thank the attending audience for their comments, especially Shai Heijmans, who provided me with numerous helpful suggestions. Any remaining errors are my own.

The occasional transliterations of Tiberian Hebrew words and vowel signs follow the conventions outlined in Johnson and Goerwitz (1995). Phonetic transcriptions, given in the International Phonetic Alphabet, are enclosed in [square brackets]; phonemic representations are preceded and followed by a /forward slash/.

Hence, if we speak of the consistent operation of sound laws, this can only mean that a sound change will treat every individual case in which the same phonetic conditions present themselves within the same dialect in the same fashion. Thus, where one and the same sound formerly occurred, this must either stay the same sound in the later stages of development as well, or, where a split into several different sounds has taken place, a specific cause should be indicated which explains why this sound arose in one case and that sound in the other, and this cause should be purely phonetic in nature, such as the influence of surrounding sounds, stress, syllable structure, etc.[1]

Adhering to this principle has pushed linguists beyond merely identifying tendencies operating in a certain language and allowed them to discover phonetically conditioned sound changes that would otherwise have gone unnoticed. As the regularity of sound change is a universal principle, it can also be shown to apply to Biblical Hebrew (Suchard 2019). In this language, however, we are faced with a small number of phenomena

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[1] *Wenn wir daher von konsequenter Wirkung der Lautgesetze reden, so kann das nur heissen, dass bei dem Lautwandel innerhalb desselben Dialektes alle einzelnen Fälle, in denen die gleichen lautlichen Bedingungen vorliegen, gleichmässig behandelt werden. Entweder muss also, wo früher einmal der gleiche Laut bestand, auch auf den späteren Entwicklungsstufen immer der gleiche Laut bleiben, oder, wo eine Spaltung in verschiedene Laute eingetreten ist, da muss eine bestimmte Ursache und zwar eine Ursache rein lautlicher Natur wie Einwirkung umgebender Laute, Akzent, Silbenstellung u. dgl. anzugeben sein, warum in dem einen Falle dieser, in dem andern jener Laut entstanden ist.*

that seem impervious to an explanation through regular sound laws. The topic of this paper is one such problem: the reflexes of Proto-Northwest-Semitic short **i* and short **u* in the Tiberian vocalisation of the Hebrew Bible, which vacillate between *i, u* and *ɛ, ɔ* in some environments in Biblical Hebrew and Aramaic and between *i, u* and *e, o* in other environments in Biblical Aramaic only.

I will suggest that the solution for this irregularity lies in a process of phonological adaptation in the reading tradition. Phonological adaptation is the process where linguistic material from one language (the source language) is adapted to fit the phonology of another language (the target language) (Hock 1991, 390–97). A common occurrence with loanwords, this usually involves the replacement of source language phonemes that do not occur in the target language with their closest approximations in the target language. Crucially, this substitution is not always regular. Speakers may even vary in their adaptation of the same foreign material from one token to the next; Cohen (2009, 93) provides the example of an Israeli basketball player variously realising the English loan *block shot* [*sic*: blocked shot] /blɒk ʃɒt/ as /blak ʃat/, /blok ʃot/, and /blak ʃot/. I will argue that this kind of irregularity lies behind the varying reflexes of **i* and **u* in Biblical Aramaic and Biblical Hebrew.

As phonological adaptation depends on the phonologies of the languages involved, the following section will discuss the phonemic inventories of Biblical Hebrew at different points in time. We will then first consider the variation between *i, u* and *e,*

o, which is limited to Biblical Aramaic, before examining the variation between *i*, *u* and *ɛ*, *ɔ* in both Biblical Aramaic and Biblical Hebrew. Phonological adaptation can be held responsible for both of these irregularities: adaptation of Aramaic texts to Hebrew phonology in the first case and adaptation of the biblical reading tradition to the phonology of an unidentified language, possibly Greek, in the second case.

2.0. PHONEMES AND ALLOPHONES

As the concept of the phoneme is crucial to the process of phonological adaptation, let us consider it first. A phoneme is the smallest contrastive unit in the sound system of a language, as is commonly accepted. But what exactly do we mean by *contrastive*?

If we find variation between two sounds in a language, I will assume that this variation is contrastive unless there is evidence to the contrary. If sounds are not contrastive, they are referred to as *allophones*. Evidence for allophony can be of two kinds.

First, the allophony may be phonetically conditioned, which is to say that it is completely predictable from the phonetic environment in which two sounds occur. The textbook example for this kind of allophony is the variation between aspirated and plain voiceless plosives in most varieties of English. Aspirated voiceless plosives like [pʰ] occur only in syllable-initial position. Plain voiceless plosives like [p] do not occur in syllable-initial position, but do occur everywhere else. [pʰ] and [p] are thus in complementary distribution: we can completely accurately predict whether a particular word has [pʰ] or [p] based solely on

phonetic environment. Therefore, the two sounds are not con-
trastive at a deeper level and can both be represented as one and
the same phoneme /p/, with the position in the syllable deter-
mining whether this phoneme is realised with or without aspira-
tion.

The other case in which variation between two sounds is
not contrastive is if it is completely unconditioned by linguistic
factors. The English word *pit*, for instance, can be realised as both
[pʰɪt̚], with an unreleased alveolar stop at the end of the word,
and [pʰɪʔ], with a glottal stop (again, in many varieties). Both
realisations are equally valid and the variation is not conditioned
by phonetic, morphological, syntactic or lexical factors. Hence,
the two allophones are said to be in free variation and can once
again be ascribed to one and the same underlying phoneme, e.g.
/t/.

Practically, then, we can say that variation between two
sounds is contrastive if and only if it is conditioned at any of the
non-phonetic levels mentioned above: if it is conditioned by mor-
phological, syntactic, or lexical features. This conditioning may
yield one or more minimal pairs, pairs of morphologically or lex-
ically distinct words that differ only in the presence of one or the
other sound under consideration, but these may also coinci-
dentally not occur. Hence, minimal pairs prove a phonemic con-
trast, but their absence does not prove a lack of contrast.

Let us turn to some illustrations from Tiberian Biblical He-
brew. The phonemic realisations are based on the description of
the Tiberian pronunciation given by Geoffrey Khan, e.g., in Khan

(1996).[2] For our first example, we see variation between [iː] and [eː], as in יָשִׂים [jɔˈsiːm] 'he will put' and יָשֵׂם [jɔˈseːm] 'let him put'. As the occurrence in a minimal pair shows, this variation is not phonetically conditioned: both sounds can occur in exactly the same phonetic environments. Nor are the sounds in free variation: 'he will put' would always be read with [iː] while 'let him put' would always be read with [eː] (and the same goes for all other words where these sounds occur). Thus, [iː] and [eː] are phonemically contrastive: they belong to two different phonemes.

For a second example, there are the various ways the vowel sign *shewa* is realised. In Tiberian, it is realised as a vowel if it stands between two consonants that would otherwise be syllable-initial. This vowel is [i] before *y*; a short vowel with the same quality as the next vowel before gutturals; and [a] elsewhere. In other positions, *shewa* is realised as zero, i.e., no vowel is read. These realisations are not in free variation, but we clearly see a purely phonetic conditioning. Hence, they belong to one and the same phoneme—or in this case, the lack of a phoneme, as the vocalic realisations can all be interpreted as allophones of zero.

By conducting this kind of analysis for every sound in the Tiberian pronunciation of Biblical Hebrew, we arrive at a vocalic phonemic inventory as presented in Table 1 (Suchard 2018). The analysis underlying this phonemic system is based on Tiberian Biblical Hebrew, but it also holds for Tiberian Biblical Aramaic.

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[2] See now also Khan (2020).

Table 1. The vocalic phonemes of Tiberian Biblical Hebrew (and Tiberian Biblical Aramaic)								
	front			central			back		
	short	un-marked	long	short	un-marked	long	short	un-marked	long
close		/i/	/ī/					/u/	/ū/
close-mid			/ē/						/ō/
open-mid	/ĕ/	/ɛ/					/ŏ/	/ɔ/	/ɔ̄/
open				/ă/	/a/				

Based on evidence from historical phonology (Suchard 2017, 211–12) and Latin and Greek transcriptions (see, e.g., Kantor 2017), earlier stages of Hebrew appear to have had a simpler phonemic inventory, presented in Table 2. The labelling as 'pre-Tiberian Biblical Hebrew' is admittedly vague, but given the long period for which this system seems to have been in place, no more precise appellation suggests itself.

Table 2. The vocalic phonemes of pre-Tiberian Biblical Hebrew					
	front		central		back	
	short	long	short	long	short	long
close		/ī/				/ū/
mid	/e/	/ē/			/o/	/ō/
open			/a/	/ā/		

The main difference with the Tiberian phonology is that later /i/ and /ɛ/ are still one phoneme /e/, just as later /u/ and /ɔ/ are still one phoneme /o/. Tiberian /ɔ̄/ still has its older value, /ā/, and the underlyingly short *ḥaṭef* vowels of the Tiberian pronunciation have not yet become separate phonemes.

Bearing these phonemic inventories in mind, let us consider
the irregular reflexes of *i* and *u*, starting with the Biblical Ara-
maic interchange between *i, u* and *e, o*.

3.0. BIBLICAL ARAMAIC *I : E* AND *U : O*

Stressed Proto-Aramaic *i* and *u* (normally deriving from Proto-
Northwest-Semitic *i* and *u*, respectively) are reflected in two
different ways in Biblical Aramaic. Stressed *i* surfaces either as
i, as in **wa-baṭṭílū* > וּבַטִּ֫לוּ 'and they stopped (m)' (Ezra 4.23), or
as *e*, as in **hawθíb* > הוֹתֵב 'he settled' (Ezra 4.10). Similarly,
stressed *u* surfaces either as *u*, as in **wa-yisgúd* > וְיִסְגֻּ֫ד 'and he
prostrates himself (pause)' (Dan. 3.6), or as *o*, as in **gúddū* > גֹּ֫דּוּ
'cut down (mpl)' (Dan. 4.11). These different reflexes can even
occur in what would otherwise seem to be the same word: cf.
*yitʕabíd > יִתְעֲבֵד 'it (m) will be made' (Ezra 6.11; 7.23; Dan.
3.29) beside יִתְעֲבֵ֑ד 'idem (pause)' (Ezra 6.12; 7.21).

As discussed in §2.0, these different reflexes are phonemi-
cally contrastive in Tiberian Biblical Aramaic. Seemingly contra-
dicting the principle of *Ausnahmslosigkeit der Lautgesetze*, how-
ever, no conditioning factor is apparent that can explain "why
this sound arose in one case and that sound in the other." As the
examples cited above suggest, the reflexes as *i* and *u* seem to
be associated with pausal position. This was already noted by
Bauer and Leander (1927, 23) and confirmed by Amos Dodi
(1989). The reflex in non-pausal forms, however, remains unpre-
dictable. Vincent DeCaen (2004) tries to explain the variation in
this position on prosodic grounds, too, but his account ultimately

leaves a number of forms unexplained. The irregularity thus re-
mains.

Taking a closer look at the occurrence of each reflex, we
find that the variation is limited to closed syllables. Leaving the
less frequent forms with **u* aside for the moment, we see short **i*
in closed syllables reflected as *i* in words like תַּדִּק 'it (f) will crush'
(Dan. 2.40, 44), מְשֵׁיזִב 'saves (m)' (Dan. 6.27), or יָכִל 'able (ms)'
(Dan. 3.17; 4.37) beside a reflex as *e* in words like שְׁלֵט 'he had
power' (Dan. 3.27), שְׁאֵלְנָא 'we asked' (Ezra 5.9, 10), or כָּהֵל 'able
(ms)' (Dan. 2.26; 4.18). In open syllables, however, we find only
i reflexes, as in סְלִקוּ 'they (m) went up' (Ezra 4.12; Dan. 2.29),
שְׁלִטוּ 'they (m) had power' (Dan 6.24), וְהַלְבִּישׁוּ 'and they (m)
clothed' (Dan. 5.29), and הִתְרְחִצוּ 'they (m.) trusted' (Dan. 3.28).

This distribution becomes meaningful if we consider it from
the point of view of pre-Tiberian Hebrew phonology. Due to a
combination of sound changes, the Hebrew non-low stressed
short vowels **e* and **o* had been preserved only in closed sylla-
bles. Stressed instances of short **e* and **o* had lost the stress in
open syllables and later underwent reduction (Blau 2010,
§3.5.12.2.6). That the distribution of the reflexes of **i* and **u* in
Biblical Aramaic matches a pattern attested in the phonology of
Biblical Hebrew suggests that the irregularity we are dealing with
is due to some kind of interaction between these two strata of the
biblical corpus.

In fact, we may explain the Biblical Aramaic situation
through a difference in phonetics between the precursors of
Biblical Aramaic and Biblical Hebrew. As was mentioned above,
different types of evidence suggest that Proto-Northwest-Semitic

*i and *u had normally shifted to *e and *o in pre-Tiberian
Biblical Hebrew. There is no indication, however, that this sound
change affected the Aramaic dialect underlying the Biblical
Aramaic reading tradition. Let us assume that this variety of
Aramaic preserved Proto-Aramaic *i and *u unchanged. Once the
Biblical Aramaic texts became an integral part of the Hebrew
Bible, this difference in phonology between the Aramaic and
Hebrew portions would have formed an unstable situation. Since
the vast majority of the biblical texts are in Hebrew, it would be
natural for readers to adapt the tiny Aramaic part of the corpus
to the dominant Hebrew phonology, especially considering the
fluid transitions between both languages in the actual text. In
doing so, Aramaic *i and *u could either be changed to the
corresponding short vowels, *e and *o, or to the corresponding
long vowels, *ī and *ū. As phonological adaptation is not bound
by regularity, this then yielded the irregular outcomes we have
observed. The process is illustrated in Table 3.

Table 3. Phonological adaptation of pre-Biblical Aramaic forms to Hebrew phonology			
Original Aramaic	Adapted form	Biblical Aramaic	meaning
*gúddū	*góddū	גֻּדּוּ	'cut down (mpl)'
*wa-yisgúd	*wa-yesgū́d	וְיִסְגֻּד	'and he prostrates him-self (pause)'
*yitʕabíd	*yetʕabéd	יִתְעֲבֵד	'it (m) will be made'
*yitʕabíd	*yetʕabī́d	יִתְעֲבֵד	'idem (pause)'

   In pausal position, *i and *u were more likely to be associ-
ated with Hebrew *ī and *ū due to the crosslinguistic effect of

prepausal vowels being phonetically lengthened (Nooteboom 1997, 658). This explains why the Biblical Aramaic words with major disjunctive accents all occur with *i* and *u*, not with *e* or *o* (Dodi 1989). In open syllables, stressed **i* and **u* were always incorporated as long **ī* and **ū*, as stressed **e* and **o* in this position did not occur in the receiving Hebrew phonology. Thus, e.g., **salíqū* 'they (m) went up' was necessarily adapted to **salī́qū >* סְלִ֫קוּ.

4.0. BIBLICAL HEBREW AND BIBLICAL ARAMAIC *I* : *ɛ* AND *U* : *ɔ*

The interchange of stressed *i* : *e* and *u* : *o* is limited to the Aramaic part of the biblical corpus. Another alternation characterises the entire corpus. In closed, unstressed syllables, we find two short[3] front vowels, written *i* and *ɛ*, and two short back vowels, written *u* and *ɔ*. Their distribution is largely predicted by phonetic environment. With the front vowels, *ɛ* normally occurs next to gutturals, e.g., חֶדְרוֹ 'his room', while *i* occurs elsewhere, e.g., בִּטְנוֹ 'his belly', דִּמְכֶם 'your (mpl) blood'. With the back vowels, *u* normally occurs before geminates, e.g., כֻּלּוֹ 'all of it (m)', while *ɔ* occurs elsewhere, e.g., קָדְשׁוֹ 'his sanctuary', הָגְלָה 'he was exiled'. However, we also find these vowels occurring in the 'wrong' environment. Unconditioned *ɛ* occurs in words like מֶמְשָׁלָה 'authority' and יֶדְכֶם 'your (mpl) hand'. Similarly, unconditioned *u* occurs

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[3] Technically, these are unmarked for length according to the analysis put forward in Suchard (2018). In this environment, they are realised as short.

in words like שֻׁלְחָן 'table' and מֻגְלִים 'exiled (mpl)'. As the distribu-
tion is not completely phonetically conditioned and the different
vowels are not in free variation—the same word in the same con-
text always being read with the same vowel—the contrast be-
tween these vowels must be considered phonemic for Tiberian
Biblical Hebrew and Aramaic (as argued in more detail in
Suchard 2018, 204).

These four short vowels derive from only two different pho-
nemes in the pre-Tiberian Hebrew phonology: /e/ and /o/. We
are therefore dealing with an unconditioned phonemic split sim-
ilar to the one in Biblical Aramaic discussed in §3.0. Perhaps,
then, a similar explanation based on phonological adaptation can
be found.

The usual transcription in alphabetic scripts as mid vowels
and the historical relatedness with long /ē/ and /ō/ support a
representation of the phonemes we are dealing with as /e/ and
/o/. Given the absence of other short, non-low vowels in pre-
Tiberian Hebrew phonology, however, it is likely that the pho-
netic realisations of these phonemes covered the entire non-low
part of the vowel space. That is to say that the phoneme we rep-
resent as /e/ could have realisations ranging from [i], [ɪ], or [e]
to [ɛ] and the phoneme that we represent as /o/ could be realised
as anything from [u], [ʊ], or [o] to [ɔ].

To readers who were well accustomed to the phonology of
the biblical reading tradition, this variation would go unnoticed,
as it was non-contrastive. Speakers are not typically conscious of
allophony of this type. Suppose, however, that one of the readers
in the chain of transmission that would eventually lead to the

Tiberian reading tradition already had a contrast between /i/ :
/ɛ/ and /u/ : /ɔ/ in closed, unstressed syllables. This contrast
could have been imported, for instance, from the reader's native
language. In this case, our reader would be hypersensitive to the
different allophonic realisations of /e/ and /o/. When hearing a
higher realisation, he would assign it to /i/ or /u/; lower realisa-
tions would be assigned to /ɛ/ and /ɔ/. Thus, what were origi-
nally allophones—with phonetic factors largely determining the
distribution, but ultimately in free variation—could split into dif-
ferent phonemes as they were mapped onto a pre-existing con-
trast taken from another language. This scenario is illustrated in
Table 4, where *Teacher* represents the older stage of the reading
tradition, where the variation is allophonic, and *Student* repre-
sents the stage where the phonemic contrast was imposed on the
originally allophonic variants.

Table 4. Phonemicisation of /i/ : /ɛ/ in the reading tradition				
Teacher thinks…	Teacher says…	Student thinks…	Tiberian Biblical Hebrew	meaning
beṭnṓ /e/	*biṭnṓ* /e/	*biṭnṓ* /i/	בְּטְנוֹ	'his belly'
yeḏkḗm /e/	*yɛḏkḗm* /e/	*yɛḏkḗm* /ɛ/	יֶדְכֶם	'your (mpl) hand'
heḡlā́ /e/	*hiḡlā́* /e/	*hiḡlā́* /i/	הִגְלָה	'he exiled'
heḡlā́ /e/	*hɛḡlā́* /e/	*hɛḡlā́* /ɛ/	הֶגְלָה	'idem'

Once the contrast had become phonemic in the mind of the
reader, he would consistently produce realisations very close to
[i] and [u] in words with /i/ and /u/ and [ɛ] and [ɔ] in words

with /ɛ/ and /ɔ/. This distinction was then passed on in the read-
ing tradition until it was fixed in writing by the Tiberian vocalis-
ers.

In the case of the purely Biblical Aramaic problem dis-
cussed in §3.0, the close match with the independently recon-
structed pre-Tiberian Hebrew phonology made the somewhat
speculative solution more plausible. In the case of *i* : *ɛ* and *u* : *ɔ*,
however, the suggestion of phonological adaptation holds a
purely hypothetical other language responsible, whose only
known characteristics are a contrast between /i/ : /ɛ/ and /u/ :
/ɔ/ in closed, unstressed syllables. Can we identify a language
that could plausibly have caused this phonological split in the
biblical reading tradition?

The first suspect would be Jewish Palestinian Aramaic. As
the vernacular language of the Tiberian Masoretes and their di-
rect precursors (as attested by its use in the masoretic notes), at
least, we may expect it to have influenced the reading tradition
in some way. But the phonology of Jewish Palestinian Aramaic
does not match the profile we are looking for. While Jewish Pal-
estinian Aramaic distinguishes between /i/ : /e/ and /u/ : /o/
and could thus plausibly have split a mid vowel phoneme into
two, it seems that only /e/, /a/, and /o/ occurred in closed, un-
stressed syllables (Fassberg 1991, 34–41). Thus, imposing Jewish
Palestinian Aramaic phonology on the Hebrew reading tradition
would have preserved /e/ and /o/ in this position, not split them.

Looking further east does not solve our problem either.
While influence from Jewish Babylonian Aramaic is historically
possible, its vowel inventory was apparently even poorer than

that of Jewish Palestinian Aramaic. As it probably did not distinguish between /u/ and /o/ (Morag 1961), it cannot be blamed for the split of /o/ into /u/ and /ɔ/ in the reading tradition.

Beyond Semitic, we find a final candidate in Palestinian Greek, the phonology of which has been admirably described by Benjamin Kantor (2017). According to Kantor's description and analysis (110–31), this variety of Greek featured the /i/ : /ɛ/ contrast that we are looking for. In the back vowels, however, we find /u/ contrasted with /o/, not with /ɔ/. This is not what the Hebrew situation would lead us to expect *a priori*, but on further reflection it may explain some curious facts of Hebrew historical phonology. As we have seen, the distribution of /i/ and /ɛ/ differs from that of /u/ and /ɔ/. With the front vowels, /i/ has the less restricted distribution, while with the back vowels, /ɔ/ does. Perhaps this can be attributed to the asymmetry in the Greek vowel system: Hebrew /o/ was normally mapped to Greek /o/ and to Greek /u/ only in more limited cases; this default value /o/ in the reading tradition later shifted to /ɔ/ in Tiberian. In the front vowels, on the other hand, Hebrew /e/ was more commonly adapted to Greek /i/, with /ɛ/ being the largely conditioned variant. There would thus seem to have been a hierarchy for the preferred vowel matching the Hebrew close-mid vowels, with a Greek close-mid vowel being the best choice when available, followed by a close vowel and then an open-mid vowel.[4]

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[4] Further evidence for the asymmetry between /e/ and /o/ in this regard comes from the pausal consecutive imperfect forms of some weak verbs. As described in Blau (1981), the forms with an *i vowel developed like

5.0. CONCLUSION

The irregular reflexes of *i and *u in Biblical Hebrew and Biblical Aramaic challenge the principle of regular sound change. I have argued that the solution is not to be sought in sound change at all, obviating the need for regularity. The conditioning of the Biblical Aramaic split discussed in §3.0 reflects features of pre-Tiberian Biblical Hebrew phonology. This suggests that phonological adaptation is at play, a process that could also explain the similar split discussed in §4.0. As phonological adaptation is often characterised by irregularity, this provides us with an explanation from generally accepted principles of historical linguistics.

The phonology causing the adaptation was seen to be pre-Tiberian Biblical Hebrew in the case of Biblical Aramaic stressed *i and *u and was suggested to be Palestinian Greek in the case of Biblical Hebrew and Aramaic unstressed *e and *o in closed syllables. The influence of these languages on the biblical reading tradition is compatible with what we might call the least surprising model of the oral transmission of the biblical texts. First, Biblical Hebrew and Biblical Aramaic texts came to be combined in a shared, biblical corpus, leading to the adaptation of the Aramaic material to Hebrew phonology. Based on grammatical features of the Aramaic variety underlying the Biblical Aramaic

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*wayyélek > *wayyélɛk > *wayyēlɛ́k > *wayyēlák > וַיֵּלֶךְ 'and he departed (pause)'. Forms with an *u vowel like וַיָּמָת 'and he died (pause)' do not reflect the parallel lowering of *o. Based on the account sketched in the main text, we may now understand the development of these forms as *wayyā́mot (with *o preserved in unstressed position as it matched Greek /o/?) > *wayyāmót > וַיָּמָת.

reading tradition, I have argued elsewhere (Suchard forthcoming) that this fixing of the combined reading tradition should be placed in first-century CE Palestine. The later influence of Palestinian Greek, the most likely culprit behind the split discussed in §4.0, then supports a continuing transmission in Roman Palestine; historical considerations suggest that the tradition was maintained in the centres of Jewish learning in Galilee (Geller 1998, 562–65). While the involvement of Palestinian Greek, especially, remains speculative, the account offered here provides one more example of how the results of historical linguistics and linguistic reconstruction can help to illuminate the history of the ancient world as it is known to historians from more direct sources.

6.0. REFERENCES

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