The Pronunciation of Dagesh lene in Tiberian Hebrew Tradition

Abstract

It is commonly assumed that the distinction between *Dagesh forte* (marking a geminated consonant) and *Dagesh lene* (marking a plosive, non-geminated pronunciation of בגדכפת letters), was also extant in the original Tiberian reading tradition. But the use of only one sign for both entities in the Tiberian vocalization, as well as a few findings from Tiberian-related sources, lead to the conclusion that the two types of *Dagesh* were both realized with gemination in the Tiberian tradition. By contrast, there are texts with Babylonian and Palestinian vocalization which make a distinction between the two types, probably representing a distinction in their realization. These facts suggest that this distinction, which is an integral component of the standard Hebrew grammar and is maintained in many oral traditions, is not based on the Tiberian tradition, preserved only in non-Tiberian traditions.

1. Introduction: unequivocality in the Tiberian vocalization system

One of the main qualities of a clear and useful writing system is unequivocality of its components.[[1]](#footnote-1) Thus, in creating a writing system, one of the basic principles that a creator of such a system is expected to follow is having a single representation for each phoneme of the language that this system is designated to represent. In practice, however, due to various reasons, the existing writing systems usually deviate from this principle to some extent.[[2]](#footnote-2) Yet, in examinning the initial use of a given writing system and assessing its relation to the spoken language in the environment to which it was originally introduced, one would expect this fundamental principle to be valid.

As to the Hebrew vocalization systems, it is generally accepted that this assuption holds true. Added to the ancient consonantal biblical text, these systems were created to and designed for enabling its users a meticulous reading of the text according to the tradition on which it was based, in order to reach a maximum preservation of the accurate pronunciation as maintained in this tradition. For this reason, it is expected that these systems would strictly refrain from any ambiguity or uncertainty in the meanings of its signs, let alone a built-in dual meaning of any sign, following thus the basic principle of one-to-one relationship between sign and its function.

In the case of the Tiberian reading tradition, which did not survive until the modern era as a living oral tridition, this assumption was a central working premise in reconstructing its features by modern researchers on the basis of its vocalization system. For example, as to the *Qameṣ* sign, which has two distinct realizations in the common Sepharadi traditions (as **a** – *Qameṣ Gadol* or *Qameṣ Raḥav*, or as **o** – *Qameṣ Qatan*) according to the phonetic environment in which it occurs, it is agreed that it originally represented only one vowel in the Tiberean tradition (probably ɔ$)$.[[3]](#footnote-3) This is also the reason why the situation in which signs representing more than one realization in this system posed a challenge to researchers, to which they proposed various explanations.

There are two signs which are usually considered to have a dual function in the Tiberian vocaliztion: the *Dagesh* and the *Shva*. According to the generally accepted grammar, the *Dagesh*, which is a dot marked inside the letter, is used either to mark gemination of the consonant marked by the letter in which it is placed (*Dagesh forte,* DF, or *Dagesh Ḥazaq*), or a plosive pronunciation of six letters (בגדכפ"ת), whose realization may be plosive or fricative (*Dagesh lene,* DL, or *Dagesh Qal*). The *Dagesh* in those six letters, therefore, has two functions, which can be distinguished only with regard to its position (DL at the beginning of the word or after a zero-vowel, DF after a vowel[[4]](#footnote-4)).[[5]](#footnote-5) The *Shva* sign is two vertical dots under the letter, which might be realized either as zero (*Queiscent Shva*, *Shva Naḥ*) or as a short or ultra-short vowel (*Mobile Shva, Shva Naʿ*).

As to the *Shva*, a few attempts were made to explain its dual value. According to a common assumption, the *Shva* sign was originally designated for marking only vowel-zero. Some scholars postulated that the *Shva* was always pronounced as zero, regardless of its phonetic environment (which in later reading habits determined its nature as queiscent or mobile),[[6]](#footnote-6) while others assumed that the mobile pronunciation(s) of the *Shva* are the actual realizations of its basic zero nature, entailed by phonetic constraints posed by certain phonetic conditions.[[7]](#footnote-7) Another possibility which was proposed is that all the variats of the *Shva* in the Tiberian tradition were originally very close in nature with very slight distinctions between them, that they were not distinguished by the Tiberian vocalizers, who set only one sign for all of them.[[8]](#footnote-8) Another approach postulates that the *Shva* sign had a certain function, technique in nature: to mark boudaries between syllables[[9]](#footnote-9) or to fill the graphic gap between vowel signs that form a syllable,[[10]](#footnote-10) and therefore, it was not intended to mark its phonetic realization, which actually varied in accordance to its phonetic environment.

As far as I know, the only explanation that postulates a fundamental bivalent use of the *Shva* sign was proposed by Morag. He assumed that the vocalizers preferred an economic use of signs, thus established one sign for a few phonetic entities which were close in nature, i.e., shorter than the full vowels.[[11]](#footnote-11)

There is almost a consensus among reaserchers, therefore, that the *Shva* sign had originally only one certain function. For some reason, however, the same assumption have been much less common with regard to the *Dagesh*, with many scholar simply attributing it a dual function.

The aim of this paper is to suggest a reexamination of the *Dagesh* sign's function in the Tiberian Hebrew tradition according to recently published findings from early manuscripts and masoretico-grammatical materials. Almost no new data is presented hereinafter, but rather a new interpretation of the existing data, which introduces a new point of view on this matter.

2. Dagesh: a uniform pronunciation in the Tiberian tradition

A few explanations were proposed for the use of the *Dagesh*, which seems to be one sign for two distinct functions.

Kahle assumed that the *Dagesh* sign was originally used as DF, to mark gemination. A careful heed was paid in the Tiberian tradition to mark especially the geminated בגדכפת consonants, which were always pronounced as plosives, in order to prevent a mistaken fricative realization. As a result, later stages of this tradition developed a use of the *Dagesh* to mark a plosive pronunciation even when it was not geminated.[[12]](#footnote-12)

A similar explanation was introduced by Morag: since it is a sufficient condition for one of the בגדכפת consonants to be geminated in order to be plosive, thus marking the plosive allophones of these consonants with the gemination sign, even when it was not geminated, was a reasonable practice in the eyes of the Tiberian vocalizers. This economical practice was enabled by the complimentary distribution of the two functions.[[13]](#footnote-13)

Another explanation, based on an opposite assumption, was presented by Tur-Sinai.[[14]](#footnote-14) He postulated that the original use of the *Dagesh* sign was to mark the plosive pronunciation of בגדכפת. This pronunciation included all the cases in which these consonants were geminated. On later stages the *Dagesh* was preceived as marking also gemination, and its use was expanded as a gemination mark in all the other consonants which might be geminated.

Another proposal was introduced by G. Khan: both realizations of the *Dagesh* – gemination and plosive pronunciation of בגדכפת – are pronounced with increased muscular pressure than their counterparts without *Dagesh*. It was this increased pressure that the Tiberian vocalization marked, without any explicit distinction between the two manners of realization.[[15]](#footnote-15)

However, according to the currently available data, some important parts of it presented by Khan himself, we can assume that the *Dagesh* sign followed the premise of unequivocal function of all signs in the Tiberian vocalization, with DLand DF having the same pronunciation in the Tiberian tradition. As a matter of fact, this is not a new assumption, already proposed in 1922 by Bauer and Leander in their grammar of Biblical Hebrew.[[16]](#footnote-16) However, the lack of supporting evidence for existence of such kind of pronunciation was probably the main reason for that their opinion was not accepted by later scholars, leaving the postulation of two distinct-in-pronunciation *Degeshim* the only common view.[[17]](#footnote-17)

The main ground for reassement of the status of the *Dagesh* sign in the Tiberian tradition is the discovery of a Karaite school, close to the Tiberian tradition in time and nature, in which DF as well as DL were both realized with gemination. This school was introduced to modern research by G. Khan,[[18]](#footnote-18) who found that a group of Karaite manuscripts, containing biblical texts transcribed through Arabic characters, marks all *Degeshim* with the Arabic gemination sign – the *Shadda*. It stands in contrast to other Karaite trascriptions of this kind, which mark only DF with Arabic *Shadda*, and leave unmarked all letters that their parallels in Hebrew Masoretic texts have DL. Since most of these manuscripts, as a rule, follow the standard arabic orthography,[[19]](#footnote-19) and since *Shadda* in arabic orthography marked only lengthened pronunciation of the consonant in which it is marked, and never used to mark a non-geminated plosive consonant, Khan maintains that the former group of manuscripts represents a reading tradition which geminated also the DL.

The uniform pronunciation of the *Dagesh* is also evident, according to Khan, from mesoretico-grammatical works close the late Tiberian tradition: *Hidāyat al-Kāri* and Mishaʾel ben ʿUzziʾel's *Kitāb al-Khilaf*. The nature of their discussions concerning the *Dagesh* in *Tav* in בָּתִּים and in other contexts, proves that the authors did not have in their mind any concious distinction between DF and DL. One can assume, therefore, that in the common pronunciation of *Dagesh* in their environment, there was no dintinction between the two types of *Dagesh*, and on the basis of the data from the Karaite transcriptions, it is logical to assume that they were both geminated.[[20]](#footnote-20)

Khan maintains that the uniform pronunciation of the *Dagesh* is a feature of the late Masoretic period, around the 10th century A.D. He assumes that this tradition began to be used by some Tiberian readers towards the late generations of the Tiberian Masoretes, out of desire to preserve the reading of the text in its full integrity and to make maximally clear distinctions that may be vulnerable to being lost. In accordance to this trend, those readers adopted the geminated pronunciation of DL in an attempt to make maximally clear distinction between fricative and plosive forms of letters and to mark a clear seperation between syllables.[[21]](#footnote-21) Khan postulates that this reading have existed in the Tiberian circles alongside the form of reading that differentiated between DF and DL, as it is in the traditional Hebrew grammar that is known nowadays.[[22]](#footnote-22)

However, if the fundamental premise of one-to-one relation between form and function is taken into account, one would better assume that the uniform realization of all *Degeshim* as DF is an intrinsic feature of the Tiberian vocalization system, rather than a secondary development of its later stages. It is only the first aforementioned group of Karaite transciptions, therefore, which marks both DF and DL with *Shadda*, that represents the original Tiberian reading of *Dagesh*, while the other group reflects another tradition with regard to this point. This assumption is also supported by additional data from a few sources.

An important evidence is provided by I. Yeivin's discussion on the sort of *Dagesh* that he called a "seperating *Dagesh*", which is aimed to mark the boudaries between syllables by pointing to the beginning of a new syllable in the letter in which it is marked. This sort of *Dagesh* may appear in all non-guttural letters ((בגדזטכלמנספצקשת, in conditions which are very similar to the rules of DL in בגדכפת, which is usually marked when it follows a pause or a consonant without a vowel.[[23]](#footnote-23) This Dagesh is one of the typical features of the non-standard Tiberian vocalization ("Extended" Tiberian vocalization or "Palestinian-Tiberian" vocalization), and a few occurances of it are found also in standard Tiberian manuscripts.[[24]](#footnote-24)

Yeivin's main innovation is that this sort of *Dagesh* was pronounced as DF.[[25]](#footnote-25) This conclusion also led him to question the nature of DL, because the conditions in which DL occurs overlap the conditions in which "seperating" *Dagesh* is used, thus DL might serve for seperation as well. So there is no way through which one can determine if a certain occurrence of *Dagesh* in בגדכפת in these conditions is DL, or "seperating" *Dagesh*, which was realized as DF. For this reason he concludes that "the relation between DF and DL inבגדכפת consonants should be reexamined".[[26]](#footnote-26) However, according to the thesis proposed here, there is no problem: All kinds of *Degeshim* – forte, lene and "seperating" – were pronounced through gemination. DL, therefore, was not distinguished from "seperating" *Dagesh* and there was no need for such a distinction, since every DL automatically marks a seperation between syllables.

This conclusion, regarding the very signs of vocalization as used in the Tiberian tradition, also indicates that gemination of every *Dagesh* was an intrinsic feature of this tradition and not a late development of some reading habits.

A source cited by Yeivin also reflects this point. When the author of "A treatise on the *Shva*" discusses the relations between *Shva* and *Dagesh*, he compares occurences of *Degeshim* that we consider as DL with *Degeshim* that we consider as DF without making any distinction.[[27]](#footnote-27) In view of this text Yeivin drew the conclusion that "The grammarians of the Masorah do not distinguish between DL and DF".[[28]](#footnote-28) Here thus another support for the assumption that there was actually no distinction in pronunciation of the two types.

Our conclusion might be corroborated not only from materials included in masoretico-grammatical texts, but also from what is not included in them. Here again a comparison to the other bivalent sign – the *Shva* – would be beneficial: While identifying and determining the right value of the Shva in varying situations (quescent or mobile, and variations of perfomance of the mobile) were the subject for massive discussions in masoretico-grammatical works,[[29]](#footnote-29) any relation to the distinction between DF and DL is completely absent from the known masoretic material and treatises close to it.[[30]](#footnote-30) This situation is also reflected in the terminology: in some masoretic texts the term specified for quescent *Shva* is distinct from the term for mobile *Shva*,[[31]](#footnote-31) but with regard to the Degeshim – there is no distinction in terminology that could be identified as a distinction between the two types.[[32]](#footnote-32)

In summary, the use of one sign for both functions, the use of *Dagesh* for seperating syllables and the data from masoritco-grammatical treatises – all seggest that there was one pronunciation for both DF and DL. And the use of the *Shadda* signs to mark all Degeshim in Karaite transcriptions of the Bible indicates that they were all pronounced with gemination.

1. The pronunciation of *Dagesh* in non-Tiberian traditions.

Unlike the Tiberian sources, there are manuscripts vocalized according to the two other vocalization traditions of the Bible – Babylonian and Palestinian – which reflect the distinction between DF and DL. Nonetheless, both traditions are inconsistent in this respect, as in both traditions the main vocalizing method marks DF as well as DL with the same sign.

This is the situation in the Babylonian vocalization in its simple version, which contains one sign functioning as its Tiberian counterpart, designated to indicate both DF and DL.[[33]](#footnote-33) However, some manuscripts with simple Babylonian vocalization mark only DF, leaving unmarked all expected places of DL.[[34]](#footnote-34) The distinction between the types is even clearer in the compuond version of the Babylonian vocalization, which employed two distinct signs for each function.[[35]](#footnote-35) There is no doubt, therefore, that there was a distinction in pronunciation of the two types of *Dagesh* in the tradition maintained by at least some users of the Babylonian vocalization. It is unclear, however, wether alongside this tradition, a uniform pronunciation of the *Dagesh* sign was also extant, or rather the use of one mark for both types in the Babylonian vocalization is a reminiscent of the Tiberian tradition or a result of its influence,[[36]](#footnote-36) and does not reflect the actual pronunciation of *Degeshim* in this tradition.

As mentioned, texts with Palestinian vocalization also show no uniformity in this point. While some texts use one sign for both functions, others mark only DF, without any mark in letters that in the Tiberian tradition have DL.[[37]](#footnote-37) Here again one might conclude that distinction in pronuncitation between the two types was extant among users of this vocalization system, while it is uncertain if the manuscripts that show uniformity in marking of the two functions reflect a unifrom pronunciation or just a Tiberian influence on the Palestinian vocalization system[[38]](#footnote-38) which does not represent the reality of pronunciation among these circles.

The distinction in pronunciation of DF and DL has thus some reflections in Babylonian and Palestinian traditions, but not in Tiberian sources. Accordingly, it is logical to assume that this distinction, which is common in all Jewish late-medieval and current reading traditions of the Bible, was preserved only in non-Tiberian traditions.

3. The use of the *Rafe* sign.

According to our understanding of the function of *Dagesh* in the Tiberian tradition, we can propose an explanation to another problem: the necessity of the opposite symbol, the *Rafe* sign. Marked with a horizontal line above the letter, it was usually used in the Tiberian vocalization to mark a fricative pronunciation of בגדכפת letters,[[39]](#footnote-39) i.e., in every case that they do not have a *Dagesh*. However, in later versions of biblical texts with the Tiberian vocalization signs, including all printed editions until nowadays, it was not felt that the *Rafe* sign was necessary, as the absence of *Dagesh* in בגדכפת marks unequivocally their fricative realization. This fact raises the question: why was it necessary for the Masoretes to use the *Rafe* symbol for this purpose?

The fact that the *Dagesh* was always prunounced with gemination may provide us with an answer. For each non-בגדכפת letter which might recieve *Dagesh*, there were only two modes: either pronounced geminated, when it was marked with *Dagesh*, or non-geminated, when there was no *Dagesh*, without any change in the consonant's quality. If there had not been any additional symbol, one would expect בגדכפת letters to follow the same principle, with only two possible modes: geminated or non-geminated, with the same sound pronounced in both modes. In other words, since *Mem*, for exapmle, always represents a labial nasal voiced consonant, while the presence or absence of *Dagesh* only determines wether it is geminated or not, a simple analogy would apply the same principle to בגדכפת, with *Bet*, for example, maintaining the same contrast: geminated with *Dagesh*, or non-geminated without *Dagesh*, without any change in its quality. The *Rafe* symbol was needed, therefore, to mark the change in quality, i.e., that the consonant in question is pronounced as a fricative consonant. Even though there was no middle ground of geminated fricative or non-geminated plosive בגדכפת consonant, with non-geminated consonant always pronounced as fricative, indicating the fricative pronunciation was still felt as necessary, in order to mark the deviation from the regular contrast of geminated-non-geminated consonant, which does not change in quality. It was only in later traditions, which adopted the Tiberian vocalization while maintaining a twofold function for *Dagesh* in בגדכפת, that the *Rafe* symbol became superflous: with the *Dagesh* marking also non-geminated plosive consonant, the presence or absence of *Dagesh* was no longer representing a one-dimensional contrast between geminated and non-geminated, but also the distinction between non-geminated plosive and non-geminated fricative בגדכפת consonant. In this situation, that בגדכפת diviated anyway from the simple contast of geminated-non-gemonated as it is in all other consonants which may take *Dagesh*, the absence of *Dagesh* was enough to mark the fricative pronunciation of בגדכפת.[[40]](#footnote-40)

4. DF and DL in the writings of early Hebrew grammarians

In contrast to the Tiberian-related sources, the distinction between DF and DL was known to early Hebrew grammarians. Yet, no clear definitions nor consistent terminology regarding this topic are found during the initial stages of the Hebrew grammar's development during the Middle Ages. Instead, one finds only initial, partial and blurry treatments of this topic in some early works.

In Saadya Gaon's grammar, there are only a few incidental examples (in the text that survived from this work) from which one can deduce a distinction between DF and DL. In the forth chapter, in which he deals with strengthening and softening consonants (*a-tashdid wa-al-ʾarkha*), he discusses *Dagesh* that is used to differentiate between different verbal patterns. His examples include יְכַבֵּד vs. יִכְבַּד, יְרַפֶּה vs. יִרְפֶּה, יְדַבֵּר vs. יַדְבֵּר [[41]](#footnote-41) – the letter with *Dagesh* in the first word in each pair is considered "strengthend", while the parallel letter in the second word is considered "soft". Since all the *Degeshim* in the secod words are DL, these comparisons clearly prove that Saadya Gaon was familiar with some distinction between DF and DL, and that compared to DF, he considered DL as *Rafe*, "soft". In contrast, in other context Saadya Gaon regards as *mushaddad* – strengthened with *Dagesh* – what we consider nowadays as DL (*Dagesh* in initial בגדכפתwhen the preceding word ends with a closed syllable).[[42]](#footnote-42) The lack of cosistency in Saadya Gaon's terminology is typical to this work,[[43]](#footnote-43) yet it demonstrates the vagueness of this topic in his linguistic consciousness.

A more explicit, but still very partial description is presented by Menaḥem ben Saruq in his *Maḥberet*.[[44]](#footnote-44) He recognizes the unique nature of בגדכפת, which might take *Dagesh* at the beginning of the word, but other circumstances in which these letters take DL are not mentioned. This *Dagesh*, he maintains, has only an euphonic function, in contrast to other types of *Degeshim*, which might indicate to the word's meaning. For both types of *Dagesh* he uses only the term *Dagesh*, without any distinction in terminology between the two types.[[45]](#footnote-45)

A bit more inclusive, but still quite blurry, is R. Yehudah Ḥayyuj's description of this topic. In his *Kitāb al-ʾAfʿāl ḏawāt al-Ḥurūf al-Layn* he presents, for the first time in grammatical work,[[46]](#footnote-46) a distinction in terms between the two types of *Dagesh*: *ṯaqīl* "heavy" for DF and *Khafīf* "light" for DL. This terminology, however, is ambiguous, as in the same paragraph he uses the term *ṯaqīl* for DL when it is contrasted with בגדכפת without *Dagesh*, what in this context he calls *Khafīf.*[[47]](#footnote-47) DL, therefore, is termed "heavy" when contrasted to *Rafe*, and "light" when contrasted to DF.[[48]](#footnote-48) Besides the terminology, his description is a bit more advanced than Menḥem's, as it includes *Degeshim* at the beginnig [like בְּרֵאשִׁית] as well as in the middle of the word [like יִרְבֶּה]. Yet it does not reach a high level of calrity, as it provides only examples for each type of DL, without any rules or grammatical explanation.

These initial descriptions are the results of the first attempts to recognize and define the distinction between DF and DL. As the Masorah lacked any reference to this matter, those grammrians were not provided with any background or basic definitions regarding this matter, thus were forced to make their first steps by their own. By contrast, with regard to the *Shva*, which was widely treated in masoretico-grammatical literature, one finds already much clearer and more elaborated descriptions in Saadya Gaon[[49]](#footnote-49) and Ḥayyuj's[[50]](#footnote-50) Grammars.

It took a few more generations to reach a fair level of clear and inclusive description of the *Degeshim*, by Joseph Kimḥi (~1111-1170).[[51]](#footnote-51) He also coined the terms *Dagesh Qal* and *Dagesh Ḥazaq*,[[52]](#footnote-52) which became the standrad Hebrew terms for DL and DF since then.

5. Conclusion

From historical point of view, there is no doubt that there were two distinct phonological entities which were marked with *Dagesh* in the Tiberian vocalization:[[53]](#footnote-53) DL, which is intended to mark the plosive pronunciation of בגדכפת, may appear only at the beginning of a syllable after a pause or a close syllable, while DF marks gemination, and appears after vowels. However, the available data from the Tiberian and Tiberian-related sources suggests that both DL and DF were pronounced with gemination in the Tiberian reading tradition.

The existence of such a pronunciation of DL is proven by Karaite Arabic transcriptions of biblical texts, in which DL is occasionally represented by the Arabic gemination sign – the *Shadda*. If we assume that this was the pronunciation of DL in the Tiberian tradition, a few basic facts can be easily explained: the use of one sign and one term for two distinct entities as DF and DL, the lack of any discussions regarding the differences between the two types and the lack of distinction between them in descriptions of the function of *Dagesh* in masoretico-grammatical texts, the use of "seperating" Dagesh, which was used in very similar conditions as DL and pronounced as DF, and the necessity of the *Rafe* sign to mark the difference in quality between geminated and non-geminated בגדכפת consonants.

The uniform pronunciation of all *Degeshim* was probably developted in Palestine shortly before or during the very early stages of the emergence of the Tiberian masoretic school. It was motivated by the aspiration to reach a maximum accurate recitation of the holy texts with maximum distinctions between different reading variants as plosive vs. fricative pronunciation of בגדכפת. These efforts were likely reinforced by contact with parallel efforts which were made in some Islamic communities with regard to the reading of the Qurʾān.[[54]](#footnote-54) This trend was strong enough to yield an artificial pronunciation, that included gemination in the beginning of words, in contradiction to the natue of both Hebrew and the native spoken language of the Masoretes – Arabic – which do not allow gemination of initial consonants.

It is only in non-Tiberian traditions – texts with Babylonian or Palestinian vocalzation – that a clear distinction between DF and DL is found. It doesn't necessarily mean that the uniform pronunciation was extant only in the Tiberian tradition, but it does mean that all later reading traditions all over the Jewsih world, which differentiate between DL and DF, as well as all grammatical descriptions with regard to DL and its distinction from DF, are based on a reading form which was preserved only in non-Tiberian traditions.

As is well-known, despite the full reception of the Tiberian vocalization all over the Jewish world, none of the existing living traditions from the late Middle Ages onward preserves the reading tradition originally represented by the Tiberian vocalization, with many of its oral unique features sinking into oblivion.[[55]](#footnote-55) As it turns out, the uniform pronunciation of DF and DL is one of these features.

Appendix: *Dagesh ṯaqīl* and *Dagesh khafīf* in a Masorah Genizah fragment published by Allony and Yeivin

In a Genizah fragment, which is estimated by its editors to contain a reminiscent of a 10th century Tiberian masoretico-grammatical text, one encounters a short paragraph in which two types of dagesh are distinguished:

תקול פי אל דגש שי את'קל מן שי, כקולך פי אלת'קיל ושים עליה כרים – הד'א אלכף אלדגש ת'קיל. ותקול פי אלדגש אלכ'פיף מי כמוכה אלת'אני.

You will say on the *Dagesh* something heavier than something else, as you say with regard to the heavy וְשִׁים עָלֶיהָ כָּרִים (Ez. 4:2) – this *Kaf* is the heavy *Dagesh*. And you will say with regard to the light *Dagesh* מִי כָּמֹכָה (Ex. 15:11) – the second (occurance in this verse).

The examples cited in this paragraph do not represent the common circumstances in which DF and DL occur, and it is completely uncertain that the *Dagesh* in the second example can be attributed to DL, as it comes after an open syllable with a conjunctive accent. Nevertheless, Allony and Yeivin proposed hesitantly,[[56]](#footnote-56) and Khan took for granted,[[57]](#footnote-57) that the distinction introduced here between "heavy Dagesh" and "light Dagesh" corresponds to the distinction between DF and DL. If this assumption is true, it is the first explicit reference to this distinction, and it proves that a Tiberian-related masoretic source is already familiar with it. Is it really the situation? Although a certain understanding is not possible in such a short and vague text, I would like to propose that another interpretation would probably better fit its context.

One fact that should be noticed in this context is that the notion of "heaviness" and "lightness" of Dagesh is presented also in *Hidāyat al-Kāri*, in which a three grades' scale of strengths of *Degeshim* is presented, and described as מנאזל פי אלתקל ואלכפה "grades with regard to heaviness and lightness". Since all the examples provided there for all three grades are of DL, Khan concludes that this classification refers to different degrees of phonetic realization with mascular pressure which does not correspond to our standard distinction between DF and DL.[[58]](#footnote-58) In light of some striking similarities between the *Hidāya* and the text in this fragment, as presented hereinafter, it seems to be reasonable to assume that the notions of "heaviness" and "lightness" in the Genizah fragment are also used in this sense.

One point of similarity between these sources is the rule regarding one of the exceptions to what is known as כלל אוי"ה, i.e., fricative pronunciation of initial בגדכפת following a word with final one of אויה letters (when not sounded). The rule in question deals with initial clusters of two identical or similar letters – בב, ככ or בפ – in which the first letter is with *Dagesh*, although it follows a word with final אויה letter and there is no pausal accent between the words (for example, וַתִּתְפְּשֵׂהוּ בְּבִגְדוֹ [Gen. 39:12], הֲלֹא כְּכַרְכְּמִישׁ [Isa. 10:9], וְאִכָּבְדָה בְּפַרְעֹה [Ex. 14:4]). There are a few versions of this rule in medieval works, but the Masorah fragment presents the same version as in the *Hidāya*, which is unique to the *Hidāya* and its related sources,[[59]](#footnote-59) with almost the same examples.[[60]](#footnote-60)

Another point is the explanation to כלל אוי"ה. Both sources propose that the reason for the "soft" pronunciation of בגדכפת in these circumstances is the influence of the "soft" character of the preceding unpronuncedאוי"ה .[[61]](#footnote-61) This proposal is absolutely not a common or standard explanation, and it is possible that it is an innovation of the *Hidāya* or the Masorah fragment, which was adopted by the other.

In addition to these two points, there are a few more points of resemblance in wording of grammtical rules and choise of examples in both sources.[[62]](#footnote-62)

In my opinion, this comparison suggests that the Genizah fragment and the *Hidāya* are two related sources, one thus would better interpret vague terms in one source in acoordance to their use in the other source. Hence, added to the uncertainty in the nature of the examples cited in the fragemnt, it is logical to assume that the meaning of the terms "heavy Dagesh" and "light Dagesh" in the Genizah fragment, is close to their meaning in the *Hidāya*, in which they does not parallel to DF and DL.

1. Cf. Ferdinand De Saussure, *Course in General Linguistics*, ed. Charles Bally and Albert Sechehaye, trans. Wade Baskin (Lomdon: Peter Owen, 1974), 27-28,39; Florian Coulmas, *The Writing Systems of the World* (Oxford: Basil Blackwell, 1991), 45-46. [↑](#footnote-ref-1)
2. De Saussure, *General Linguistics*, 27-32; Coulmas, *Writing Systems*, 229-30; Henry Rogers, *Writing Systems: A Linguistic Approach* (Malden, MA: Blackwell, 2005), 13-14. [↑](#footnote-ref-2)
3. See, for example, W. Randall Gar, "Interpreting Orthography," in *The Hebrew Bible and its Interpreters*, ed. William H. Propp, Baruch Halpern, and David N. Freddman (Winona Lake, Indiana: Eisenbrauns, 1990), 65; Paul Joüon, *A Grammar of Biblical Hebrew*, translated and revised by Takamitsu Muraoka (Roma: Editrice Pontificio Instituto biblio, 1996), 43-44. [↑](#footnote-ref-3)
4. The nature *Deḥiq*, which is marked with the same sign as *Dagesh* and occurs in certain conditions at the beginning of the word, was a subject for discussions between researchers. See N. X below. [↑](#footnote-ref-4)
5. Another use of a dot inside the letter, the *Mappiq*, is not included in this discussion, since it has a certain role – marking consonantal pronunciation of *He* (or, in a few rare cases, *Aleph*), which never takes *Dagesh* – thus is not liable to be confused with the *Dagesh*. [↑](#footnote-ref-5)
6. Hans Bauer and Pontus Leander, Historische Grammatik der hebräischen Sprache des Alten Testamentes (Halle: Niemeyer, 1922), 168 n. 3; Zeev Ben-Ḥayyim, "Ha-Shva ha-Meraḥef ve-ha-Hakhpalah be-ʿIvrit," Lešonenu 11 (1941): 83, 86-89. See also See Joüon and Muraoka, Biblical Hebrew, 51-52. [↑](#footnote-ref-6)
7. In other words, the quiescent pronunciation and the mobile pronunciation(s) of the Shva, according to this approach, are all allophones of the phonemic concept of vowel-zero. See Shmuel Bolozky, "The Role of Casual Speech in Evaluating Naturalness of Phonologicl Processes: the Phonetic Reality of the Schwa in Israeli Hebrew", SKASE: Journal of Theoretical Linguistics 2 (2005): 1-2; Geoffrey Khan, "Tiberian Reading Tradition," in ed. Geoffrey Khan et al., Encyclopedia of Hebrew Language and Linguistics, vol. 3 (Leiden and Boston; Brill, 2013), 774. [↑](#footnote-ref-7)
8. Hanoch Yalon (ed.), R. Shlomo Almoli: Halikhot Shva (Jerusalem: Mosad Harav Kook, 1945), 97-98. A similar stance was presented also by Nisan Berggrin, "Klal He shel R. Eliyyahu Baḥur: Pereq be-Toldot ha-Diqduq ha-ʿIvri," Lešonenu 16 (1949): 170. [↑](#footnote-ref-8)
9. Aron Dotan, "Shmotav shel ha-Shva be-Reshito shel ha-Diqduq ha-ʿIvri," Lešonenu 19 (1954): 13-15; idem, "Masorah", Encyclopedia Judaica, 2nd ed., vol. 13 (Jerusalem: Thomson Gale and Keter Publishing House), 633-34. [↑](#footnote-ref-9)
10. Geoffrey Khan, "The Syllabic Nature of Tiberian Hebrew Vocalization," in Semitic Studies in Honor of Wolf Lesau on Occasion of his Eighty-Fifth Birthday, ed. Alan s. Kaye, (Wiesbaden: O. Harrassowitz, 1991), 861. It seems that Khan presented here a different approach than what he presented in his later publication cited above. [↑](#footnote-ref-10)
11. See Shelomo Morag, The Vocalization Systems of Arabic, Hebrew, and Aramaic: Their Phonetic and Phonemic Principles, 2nd ed. (Dortrecht: Mouton & co.'s-Gravenhage, 1972), 69-70. [↑](#footnote-ref-11)
12. Paul Kahle, *Masoreten des Ostens* (Leipzig: J. C. Hinrich'sche Buchhandlung, 1913), 167. Khale expressed his assumption with regard to the Babylonian vocalization, and Yellin (David Yellin*, Diqduq ha-Lašon ha-ʿIvrit* [Jerusalem: Rubin Mass, 1942], 113-114) adopted it with regard to the Tiberian vocalization. [↑](#footnote-ref-12)
13. Morag, *Vocalization Systems*, 26-27. [↑](#footnote-ref-13)
14. Naphtali Herz Tur-Sinai, "Mivta ha-ʾotiyot bgdkpt ha-Dgushot ve-ha-Refuyot bi-Lshonenu," in *Ha-Lashon ve-ha-Sefer: Kerekh ha-Lashon* (Jerusalen: Bialik Institute, 1954), 171-172. [↑](#footnote-ref-14)
15. Khan, "Reading Tradition," 771. A similar approach was already expressed by Heinrich Ewald, *Ausfürliches Lehrbuch der Hebräischen Sprache der Alten Bundes* (Leipzig: Mann'sche Verlag-Buchhandlung, 1855), 155. [↑](#footnote-ref-15)
16. Bauer and Leander, *Historische Grammatik*, 117. A similar view had been expressed even beofre, by H. Oort (cited in *Gesenius' Hebrew Grammar*, edited by Emil Kautzsch, translated and revised by Arthur E. Cowley, Oxford 1910, §12, n. 1). [↑](#footnote-ref-16)
17. Cf., for example, Gumpertz's discussion in Y. F. Gumpertz, *Mivṭaʾe Sefatenu: Studies in Historical Phonetics of the Hebrew Language* (Jerusalem: Mosad Harav Kook, 1953), 246-47 (Heb.); Joüon and Muraoka, *Biblical Hebrew*, 56-57; Viktor Golinets, "Dageš," in ed. Geoffrey Khan et al., *Encyclopedia of Hebrew Language and Linguistics*, vol. 1 (Leiden and Boston: Brill, 2013), 649-650*.* This is also the view reflected in the above-mentioned explanations of Morag and Khan, as well as in others of Khan's publications (cited below). [↑](#footnote-ref-17)
18. G. Khan, "The Pronunciation of *Dageš* in the Tiberian Tradition of Biblical Hebrew," *Language Studies* 17-18: *Aharon Maman Festschrift* (2017): 349-53 (Heb.); idem, "How was the *Dageš* in Biblical Hebrew בָּתִּים Pronounced and Why is It There?," *Journal of Semitic Studies* LXIII (2018): 325-32; idem, "Remarks on the Pronunciation of Dageš in the Tiberian Reading Tradition of the Hebrew Bible," in *Semitic, Biblical and Jewsih Studies in Honorof Richard C. Steiner*, ed. Aaron J. Koller et al. (Jerusalem: Bialik Institute and New York: Michael Scharf Yeshiva University Press, 2020), \*256-\*60,\*266-\*69; idem, *The Tiberian Pronunciation Tradition of Biblical Hebrew*, vol. 1 (Cambridge: OpenBook Publishers, 2020), 547-51. [↑](#footnote-ref-18)
19. Khan, "The Medieval Karaite Transcriptions of Hebrew into Arabic Script," *Israel Oriental Studies* 12 (1992): 162-67; idem, "The Orthography of Karaite Hebrew Bible Manuscripts in Arabic Transcription", *Journal of Semitic Studies* XXXVIII (1993): 49-70. [↑](#footnote-ref-19)
20. Khan, "Pronunciation of *Dageš*," 352-57; idem, ",בָּתִּים" 329-36; idem, "Remarks," \*260-\*67; idem, *Tiberian Pronunciation*, 551-60. For another interpretation of the approach reflected in *Hidāya* cf. Ilan Eldar, *The Study of the Art of Correct Reading as Reflected in the Medieval Treatise Hidāyat al-Kāri (=Guidance of the Reader)* (Jerusalem: the Academy of the Hebrew Language, 1994), 76-77 (Heb.). For some distinctions in function of DF and DL introduced in *Hidāya* see idem, 72-73. [↑](#footnote-ref-20)
21. Khan, "Pronunciation of Dageš," 357-58; idem, "Remarks," \*267-\*68; idem, *Tiberian Pronunciation*, 560-62. [↑](#footnote-ref-21)
22. idem, *Tiberian Pronunciation*, 562. However, this assumption is based on distinction in terminology in one treatise published by Allony and Yeivin (Neḥemya Allony and Israel Yeivin, "Four Fragments from Four *Muṣawwitāt* (Vowels) Works," *Lešonenu* 48-49 (1985), 101), which its correpodence to the common distionction between DF and DL is doubtful (see idem, 98; see also appendix to this paper). [↑](#footnote-ref-22)
23. For details and refrences see Israel Yeivin, "משמעות סימן הדגש בניקוד הטברני 'המורחב'", *Hebrew Language Studies Presented to* *Proffesor Zeev Ben-Ḥayyim*, ed. Moshe Bar-Asher et al. (Jerusalen: Magnes Press, 1983), 294-99 (Heb.). [↑](#footnote-ref-23)
24. For example: יַעְקֹּב(Jer. 9:3), וַיֹּאמֶר לֹּא(Num. 22:30). See idem, 302-304. [↑](#footnote-ref-24)
25. Idem, 304-307. [↑](#footnote-ref-25)
26. Idem, 307. [↑](#footnote-ref-26)
27. Kurt Levy, *Zur Masoretischen Grammatik: Texte und Untersuchungen* (Stuttgart: W. Kohlhammer, 1936), 11. [↑](#footnote-ref-27)
28. Yeivin, "סימן הדגש", 305. [↑](#footnote-ref-28)
29. Aron Dotan, *The Diqduqé Haṭṭěʿamim of Ahǎron ben Moše ben Ašer: With A Critical Edition of the Original Text from New Manuscripts*, vol. 1, (Jerusalem: The Academy for Hebrew Language, 1967), 31 (Heb.); Shelomo Morag, "Mimushe ha-Shva be-Ḥibure ha-Diqduq," in *Studies on Medieval Hebrew Linguisrtic Thought: A Reader*, ed. Ilan Eldar and Shelomo Morag (Jerusalem: Academon Press, 1985), 330-35; Ilan Eldar, *Hebrew Language Studies in the Middle Ages* (Jerusalem: Magnes, 2016), 277-78 (Heb.). [↑](#footnote-ref-29)
30. A famous example for the lack of distinction is what known as כלל אוי"ה, i.e., the masoretic rule that determines when a word-intial בגדכפת letter after a preceding word with final אויה letter has a *Dagesh*, viz., when it is realized as plosive and when it is realized as fricative consonant. This rule includes cases that we regard to as DL, like word-initial בגדכפת letter after a pausal accent, and the intial *Dagesh* known as Deḥiq, which was pronounced, according to Khan (see Khan, *Tiberian Pronunciation*, 446-447), with gemination (for another approach see, for example, Tur-Sinai, *Ha-Lashon*, 173; Joshua Blau, *The Phonology and Morphology of Biblical Hebrew* [Jerusalem: The Academy of the Hebrew Language, 2010], 123-24 [Heb.]). Khan, *Tiberian Pronunciation*, 560, pointed that out with regard to this rule as presented in *Hidāyat al-Kāri,* but the same can be deduced also from citations of this rule in other masoretico-grammatical works (see Gumpertz, *Mivṭa'e Sefatenu*, 214-22; Aron Dotan, *Thesaurus of Quntrese-Masora: Hidden Language Treasures of Old*, [Jerusalem: The Academy of the Hebrew Language, 2020], 355-403 (Heb.) . [↑](#footnote-ref-30)
31. See Dotan, "ha-Shva," 23-24; Morag, "ha-Shva," 330-31,335. [↑](#footnote-ref-31)
32. One doubtful exception, in one fragment published by Allony and Yeivin, is mentioned above and discussed in the appendix to this paper. But even if one postulates that the distinction between the terms used in this text reflects the distinction between DF and DL – this is a unique exception. [↑](#footnote-ref-32)
33. Dotan, "Masorah," 632. [↑](#footnote-ref-33)
34. Israel Yeivin, *The Hebrew Language Tradition as Reflected in the Babylonian Vocalization*, vol. 1 (Jerusalem: The Academy of the Hebrew Language, 1985), 336 (Heb.). [↑](#footnote-ref-34)
35. Shelomo Morag, "Nikud", in *Encyclopeadia Biblica*, vol. 5, ed. B. Mazar et al. (Jerusalem: Bialik Institute, 1968), 851 (Heb.). [↑](#footnote-ref-35)
36. On the possibility that the Babylonian vocalization had originated from the Tiberian vocalization see Joshua Blau, "The Origins of the Babylonian Vocalization," *Lešonenu* 72 (2010): 201-202 (Heb.). [↑](#footnote-ref-36)
37. A. Murtonen, "Materials for a Non-Masoretic Hebrew Grammar" (PhD diss., University of Helsinki, 1958), 33; See also texts num. 8 and 11 in Revell's description (Ernst John Revell, *Hebrew Texts with Palestinian Vocalization* [Toronto: University of Toronto Press, 1970], 12 ff.); Joseph Yahalom, Palestinian Vocalized Piyyuṭ Manuscripts in the Camnridge Genizah Collections (Cambridge: Cambridge University Press, 1997), 32,39. [↑](#footnote-ref-37)
38. See Dotan, "Masorah," 626; Ilan Eldar, "Vocalization Systems and Pronunciation Traditions of Hebrew," in *Studies in Vocalization Systems and Reading Tradition in Hebrew* (Jerusalem: Magnes Press, 2018,), 118,122-24 (Heb.). For another approach see Joshua Blau and Joseph Yahalom, "The Typology of Palestinian Vocalization Systems Preserved in Manuscripts from the Last Quarter of the First Millenium," *Language Studies* 18-19 (2017): 101 (Heb.). [↑](#footnote-ref-38)
39. On other uses of this sign, see Morag, "Nikud," 853-54; Dotan, "Masorah," 635; Israel Yeivin, *The Biblical Masorah* (Jerusalem: The Academy of Hebrew Language, 2003), 239-41 (Heb.); Khan, *Tiberian Pronunciation*, 571-74. [↑](#footnote-ref-39)
40. This explanation is not intended to provide a comprehensive solution to the full scope of this problem, and further study is still needed with regard to other uses of this symbol and its parallels in Babylonian and Palestinian vocalization. [↑](#footnote-ref-40)
41. Aron Dotan (ed. And trans.), *The Dawn of Hebrew Linguistics: The Book of Elegance of the Language of the Hebrews by Saadia Gaon* (Jerusalem: Magnes Press, 1997), 208,401-402. One may find a partial citation accompanied with English translation in Khan, "Remarks," \*253-\*54. [↑](#footnote-ref-41)
42. Idem, 410. [↑](#footnote-ref-42)
43. Idem, 156. [↑](#footnote-ref-43)
44. Angel Sáenz-Badillos (ed.), *Ménaḥem ben Saruq Maḥberet: Edición Crítica e Introducción* (Granada: Universidad de Granada, 1986), \*5. [↑](#footnote-ref-44)
45. David Yellin, *Toldot Hitpatḥut ha-Diqduq ha-ʿIvri ʿim Mishqele ha-Shemot ba-Lashon ha-ʿIvrit* (Jerusalem: Kohelet, 1945), 51-52; Hananel Mirsky, *The Linguistic Theory of Menaḥem ben Saruq* (Jerusalem: Yad Izhak Ben-Zvi, 2018), 80-81 (Heb.). [↑](#footnote-ref-45)
46. According to my assumption that the Genizah fragment published by Allony and Yeivin does not introduce such a distinction. See in the appendix to this paper. [↑](#footnote-ref-46)
47. Daniel Sivan and Ali Wated (eds), *Three Treatises on Hebrew Grammar by R. Judah Ḥayyuj: a New Critical Edition of the Arabic Text with a Modern Hebrew Translation* (Beer-Sheva: Ben-Gurion University Press, 2012), 18-21. One may find a partial citation accompanied with English translation in Khan, "Remarks", pp. \*254-\*55. This ambiguity was resolved by Moshe ibn Giqatilla in his medieval Hebrew translation to Ḥayyuj's works, in which he termed DF *kaved meʾod*, 'very heavy', or *kaved she-ba-kevedim*, 'the heaviest amog the heavy (elements)', and DL is *ha-qal she-ba-kaved*, 'the light (element) among the heavy (elelments)'. See R. Jehuda Hayug, *Two Treatises on Verbs Containing Feeable and Double Letters: Translated into Hebrew from Original Arabic by R. Moses Gikatilia*, ed. John W. Nutt (London: Asher, 1870), 8-9. [↑](#footnote-ref-47)
48. Roger Kaplan, "A Critical Study of the Philological Methods of Yehuda Ben David (Hayyuj)" (PhD diss., New York University, 1992), 180-81; Ali Wated, *Mishnato ha-Leshonit shel R"Y Ḥayyuj mibaʿad le-Munaḥav bi-Mekoram ha-ʿAravi u-v-Targuman ha-ʿIvri* (Haifa: Ha-Wadi, 1994) 33. [↑](#footnote-ref-48)
49. See Dotan, *Elegance*, 230-35. [↑](#footnote-ref-49)
50. Sivan and Wated, *Ḥayyuj*, 6-11. [↑](#footnote-ref-50)
51. W. Bacher (ed.), Sepher Sikkaron: *Grammatik der hebräischen Sprache von R. Joseph Kimchi* (Berlin: M'kize Nirdamim, 1888), 9; William Chomsky, *Ha-Lashon ha-ʿIvrit be-Darkhe Hitpatḥutah* (Jerusalem: Rubin Mass, 1977), 176-77 (Heb.); idem, "Dagesh and Rafe in the Tiberian Tradition," *The Jewish Quaterly Review* 63 (1973): 357. Cf. Khan, "Pronunciation of Dageš," 349; idem, "Remarks", \*255. [↑](#footnote-ref-51)
52. These terms were probably inspired by the terminology of Samuel ben Meir (Rashbam, ~1080-~1159), an older contemporary of Kimḥi. In his Hebrew grammar, Rashbam refers to DF as Dagesh that creates Mishqal Ḥazaq, 'strong pattern', i.e., morphological pattern that includes an integral Dagesh, and DL is called Dagesh Haqal, which denotes Dagesh that occurs in Mishqal Qal, i.e., morphological pattern that does not include an integral Dagesh (like the verb יִשׁבּוֹר, that does not contain Dagesh in all of its conjugations). See Ronela Merdler, Dayyaqut Merabbenu Shmuel [ben Meir (Rashbam)] (Jerusalem: Mandel Institute for Jewish Studies, 1999), 18; idem, Rabbi Samuel ben Meir (Rashbam) and Hebrew Grammar (PhD diss., The Hebrew University of Jerusalem, 2004), 100,111. [↑](#footnote-ref-52)
53. Khan, "Pronunciation of Dageš," 349; idem, "Remarks", \*255. [↑](#footnote-ref-53)
54. Khan, "Pronunciation of Dageš," 357; idem, "Remarks", \*267. [↑](#footnote-ref-54)
55. Khan, "Reading Tradition", 770; idem, *Tiberian Pronunciation*, 105-15, esp. 112. [↑](#footnote-ref-55)
56. "Four Fragments," 96,98. [↑](#footnote-ref-56)
57. Khan, *Tiberian Pronunciation*, 562. [↑](#footnote-ref-57)
58. Khan, "Pronunciation of Dageš," 352-54; idem, "Remarks," \*260-\*63. Cf. Eldar*, Correct Reading*, 76-77. [↑](#footnote-ref-58)
59. See Y. Wormser, *Hebrew Grammar in Ashkenaz in Eraly-Modern Times: The Linguistic Theory of Rabbi Zalman Hena (Hanau)* (Jerusalem: Bialik Institue, 2021), 128 (Heb.). [↑](#footnote-ref-59)
60. Cf. Allony and Yeivin, "Four Fragments," 100-101; Eldar, *Correct Reading*, 117-18. [↑](#footnote-ref-60)
61. Cf. Allony and Yeivin, "Four Fragments,", 97,104-105; Eldar, *Correct Reading*, 108. [↑](#footnote-ref-61)
62. Cf. Allony and Yeivin, "Four Fragments," 99-100; Eldar, *Correct Reading*, 115-17. [↑](#footnote-ref-62)